

Companies' Best Practices on Long-Term Foreign Direct Investment Within APEC Economies

Company Write-up

Toyota Motor Manufacturing Kentucky

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1. OVERVIEW OF SELECTED FDI PROJECTS / COMPANIES

1.1 TOYOTA MOTOR MANUFACTURING KENTUCKY (TMMK)

COMPANY DETAIL



Toyota Motor Manufacturing Kentucky (TMMK)

Origin:

Japan

Industry:

Automotive

PRESENCE IN HOST ECONOMY



Est. Year:

1986

Head Office:

Georgetown

Kentucky, United States

Entity:

Toyota Motor Manufacturing, Kentucky, Inc.

No of Employees:



9,400+

Main Production Facility Location:

 Georgetown, Kentucky, United States

Continuity



Toyota Motor Manufacturing Kentucky (TMMK) in Kentucky, USA, has exemplified operational excellence for nearly four decades, serving as Toyota's largest global production facility and a pillar of its North American strategy. With over USD 11 billion invested and more than 14 million vehicles produced since 1986, TMMK reflects Toyota's long-term commitment to innovation, sustainability, and U.S. manufacturing. The plant has steadily evolved—from pioneering hybrid production in 2006 to receiving a recent USD 1.3 billion investment to build a three-row battery electric sports utility vehicle (SUV). A new USD 922 million paint facility was also announced in 2024. This investment, reducing carbon emissions by 30% and conserving 1.5 million gallons (or around 5.7 million liters) of water annually, aligns with APEC's regional goals of increasing renewable energy and reducing energy intensity, showcasing sustainable industrial practices that foster cooperation for carbon neutrality. TMMK's sustained performance is driven by the Toyota Production System and a culture of continuous improvement, making it a model for resilience and long-term value creation.

Relationship



TMMK's commitment to fostering strong relationships is deeply embedded in its culture, reflected in over USD 163 million in community donations since 1988, including USD 3 million in 2021 alone supporting education, disaster relief, and workforce sustainability initiatives. Guided by the core value of Respect for People, TMMK actively partners with nonprofits like the sports organization Special Olympics and invests in local projects such as the University of Kentucky's Appalachian Center for Assistive Technology. Through ongoing volunteer efforts, matched donations via Toyota4Good, and transparent engagement with government and community stakeholders, TMMK has established itself as a trusted corporate citizen and key economic contributor in Kentucky, USA.

Human Resource Development



TMMK's approach to human resource development emphasizes local job creation, local workforce training, career progression, and workforce sustainability. Since its founding in 1988, TMMK has grown to employ nearly 10,000 people in 2024, supporting approximately 30,000 direct, indirect, and spin-off jobs across Kentucky, USA. Its localized hiring strategy includes specialized tracks for military veterans, alongside outreach across more than 80 counties to build a robust talent pipeline. Workforce training is anchored by programs such as the Advanced Manufacturing Technician (AMT) with Bluegrass Community and Technical College (BCTC), the 4T Academy for high school students, and extensive STEM outreach, all designed to develop technical skills and foster long-term employee growth. Career progression is structured around the mastery of technical skills and leadership development based on Toyota's values. TMMK's workforce sustainability initiatives promote an inclusive workplace culture, reinforcing its commitment to workforce empowerment and sustaining Kentucky's position as a competitive manufacturing hub.

2. DETAILS AND KEY FINDINGS OF INDIVIDUAL CASE STUDY

2.1 TOYOTA MOTOR MANUFACTURING KENTUCKY (TMMK)

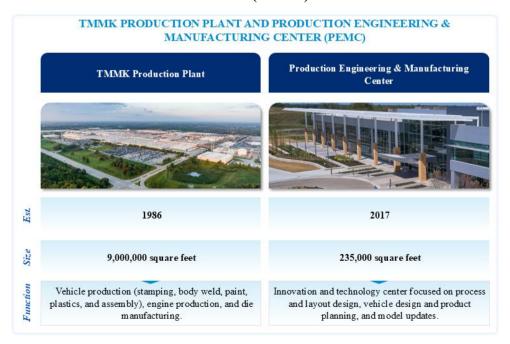
2.1.1 Continuity

Investment Longevity

Toyota Motor Manufacturing Kentucky (TMMK), a key subsidiary under Toyota Motor North America (TMNA), has long served as a symbol of innovation and strategic investment within the United States. Established in 1986 following extensive negotiations between Toyota Motor Corporation (TMC) and then-Kentucky Governor Martha Layne Collins, TMMK became Toyota's first wholly owned manufacturing facility in the United States. Located in Georgetown, Kentucky, USA, the plant marked several historic milestones for the company—it was the first in the U.S. to assemble the iconic Toyota Camry and is poised to become the first to produce hydrogen fuel cell modules for heavy-duty commercial trucks.² Over nearly four decades, TMMK has produced more than 14 million vehicles, reinforcing its position as a cornerstone of Toyota's North American operations.³

The groundbreaking of the Georgetown, Kentucky plant in 1986 marked the beginning of Toyota's transformation into a leading player in the U.S. automotive sector. Today, the facility spans over nine million square feet (or around 836,000 square meters) and is strategically supported by the nearby Production Engineering and Manufacturing Center (PEMC), which began operations in 2017. The PEMC plays a critical role in driving innovation and advancing manufacturing technologies across Toyota's North American operations, enabling the production of ever-better vehicles. Together, the Georgetown plant and PEMC (see *Figure 1*) underscore Toyota's long-term commitment to American manufacturing and serve as a central hub for a dedicated team of engineers shaping the future of mobility.⁴

Figure 1: TMMK Production Plant and Production Engineering & Manufacturing Center (PEMC)



Source: Materials shared by TMMK

Over the years, TMMK has made seven major investments, each reflecting its strategic intent to meet evolving market needs, strengthen operational capabilities, and support long-term industrial resilience:

1. 1985-1988: Founding of TMMK

In December 1985, Toyota announced that Kentucky would be the site of its first wholly owned automotive manufacturing facility in the United States. The following year, Toyota Motor Manufacturing Kentucky (TMMK) was officially established, becoming the company's first independent vehicle production base in North America. In November 1987, Toyota expanded its commitment with the announcement of a dedicated powertrain plant, and by 1988, TMMK began producing the Camry—marking a significant milestone as Toyota's first wholly-owned vehicle manufacturing operation in the U.S. This foundational period marked the beginning of Toyota's long-standing contribution to American manufacturing and its evolving leadership in the North American automotive industry.⁵

2. 2013-2015: New Assembly Line for Lexus ES350

TMMK expanded its operations with the development of a new assembly line to support production of the Lexus ES 350. To enable this dedicated line, Toyota invested USD 360 million in the Georgetown plant.⁶ In 2015, the Kentucky facility began manufacturing the Lexus ES 350—marking the first time Lexus vehicles were produced in the United States. This milestone investment established an annual production capacity of 50,000 units, underscoring Toyota's confidence in its U.S. manufacturing capabilities and its commitment to localizing premium vehicle production.⁷

3. 2017: New Plant 1 Paint Shop Development

As part of Toyota's landmark USD 1.33 billion investment in 2017 to enhance manufacturing flexibility, 8 TMMK developed a new 475,000-square-foot paint shop at its Georgetown facility—underscoring the company's commitment to advanced production capabilities and long-term investment in Kentucky. 9

4. 2017-2020: New Assembly Line for RAV4 Vehicle

TMMK began production of the RAV4 Hybrid in January 2020, enabled by the development of Assembly Line 2 and a broader series of strategic investments by Toyota totaling over USD 1.5 billion since 2017.¹⁰ The launch marked a pivotal advancement in Toyota's electrification strategy in the U.S., with production capacity at 100,000 units annually. This expansion further cemented TMMK's role as a central hub in Toyota's efforts to meet the growing demand for hybrid SUVs across the North American market.¹¹

5. 2021-2023: Powertrains Development

In 2021, Toyota announced a USD 461 million investment at TMMK to modernize the facility, enhance production flexibility, and expand powertrain capabilities. A key component of this initiative was the introduction of a new 2.4-liter turbo engine line, designed to support a broader range of vehicles and advance Toyota's future electrification objectives.¹²

6. 2023: K-Flex

K-Flex represents a comprehensive overhaul of TMMK's original Assembly Line 1, involving the construction of new assembly lines within an existing building—while maintaining ongoing production. This strategic investment significantly enhances TMMK's manufacturing flexibility, paving the way for the introduction of a new three-row SUV model. The initiative also brought a series of supporting investments across the plant, reinforcing TMMK's adaptability and readiness for future vehicle programs.

7. 2024-2027: New Paint Shop for Line 2

TMMK's transformation continues with a USD 922 million investment announced in 2024 to construct a new advanced paint facility and accelerate the company's electrification efforts. Scheduled to open in 2027, the one-million-square-foot facility is designed to enhance operational efficiency, improve vehicle finish quality, and significantly reduce environmental impact—cutting carbon emissions by 30 percent and conserving 1.5 million gallons of water annually. This project strengthens TMMK's flexibility for future vehicle production and marks another step toward Toyota's global goal of achieving zero carbon emissions by 2050. 13

In addition to numerous other investments, including body rotation upgrades and various new vehicle projects, these major initiatives represent the most significant capital commitments to date, bringing Toyota's total investment in TMMK to USD 11 billion. These sustained investments have enabled TMMK to deliver a comprehensive product and service offering (see *Figure 2*).



Figure 2: TMMK Products and Services

Source: Materials shared by TMMK

– (Ms. Sandy Nott, Vice President of Administration TMMK)

In addition to the Camry Hybrid—America's best-selling car—Toyota Kentucky also produces the RAV4 Hybrid, Lexus ES 350 and 300h, along with four-cylinder and V6 engines. Since

99

TMMK has operated primarily as a sedan plant, with limited capacity to produce small SUVs such as the RAV. The ongoing transformation is largely driven by changes in market demand. A key aspect of this shift involves adopting a multipath approach to enable the facility to accommodate a broader range of products.

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1988, over 14 million vehicles have been assembled at the Georgetown plant, which now employs approximately 10,000 full-time workers. With an annual production capacity of 550,000 vehicles and more than 600,000 engines, TMMK stands as the largest vehicle manufacturing facility in the world.³ In 2024 alone, the plant produced over 435,000 vehicles and 714,000 engines (see *Figure 3*).

TMMK OPERATIONS HIGHLIGHTS

14+ Million
Total Vehicles Produced

435,000+
Vehicles Produced in 2024

Total Investment

USD 11 Bn+
Total Investment

USD 163 Mn+
Community Donations

Figure 3: TMMK Operations Highlights

Source: Toyota Motor North America Website³

Resilience and Adaptability

TMMK has consistently demonstrated resilience and adaptability in the face of various challenges over the years. Notable disruptions have included the COVID-19 pandemic, the 2011 earthquake and tsunami in Japan, the global microchip shortage, and the Mexico-Canada border issue. Through proactive risk mitigation and decisive action plans, TMMK has successfully navigated these challenges, maintaining its strength and leadership in the automotive industry.

Toyota in general have strong emphasis on risk mitigation and consistently focuses on identifying actions and countermeasures to address potential challenges and 'what-if' scenarios.

- (Ms. Sandy Nott, Vice President of Administration TMMK)

Three key factors have enabled TMMK to successfully navigate challenges: the strength of the Toyota brand, the quality of its products, and strategic support from headquarters. The Camry—one of the best-selling vehicles in the mid-size segment—has consistently reinforced TMMK's reputation for producing high-quality products. Even during periods of reputational risk, such as the unintended acceleration issue in 2009–2010, the Camry remained a top seller,

underscoring customer trust. In parallel, Toyota Motor Corporation (TMC) has provided TMMK with extensive resources and global expertise, which, when focused on a specific issue, have been critical in enabling swift and effective resolution.

The strength of the Toyota brand has been instrumental in overcoming these challenges. In addition, the Camry is a very good product. Moreover, when TMC channels its extensive resources toward a singular objective, the results can be remarkable. These three factors have been key components of resilience for TMMK in addressing and overcoming various challenges.

- (Mr. Kerry Creech, Plant President TMMK)

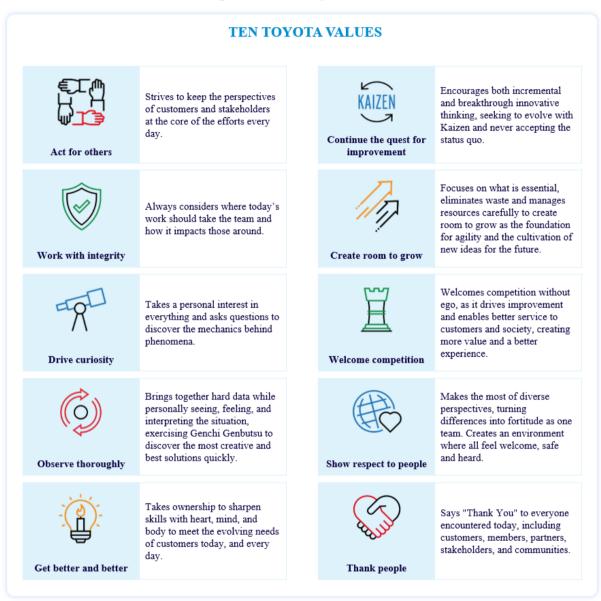
A recent example that highlights the strength of TMMK's resilience was during the COVID-19 pandemic. TMMK proactively leveraged regional resources to determine the most effective ways to safeguard team members, swiftly implementing countermeasures ranging from handheld thermometers to advanced body temperature scanning technologies. In response to local shortages of personal protective equipment, TMMK repurposed its tools and capabilities to produce and assemble face shields for hospitals and clinics across Central Kentucky. It also developed a manual mask-folding process, which was later scaled with the use of a dedicated mask-making machine—enabling distribution to other sites as part of a broader support initiative.

The COVID-19 pandemic is part of a broader track record of TMMK displaying resilience in times of disruptions. During the 2011 earthquake and tsunami in Japan, TMMK's production fell by approximately 14%, from 371,694 vehicles in 2010 to 315,239 in 2011, partly due to limited parts availability. With strategic support and planning, within 10 days of the disaster, Toyota resumed parts production in Japan to supply overseas plants and implemented coordinated reduced schedules across all North American factories, including TMMK, to conserve limited inventory. As supply stabilized, TMMK quickly ramped up output—successfully launching the 2012 Camry ahead of schedule. This vehicle, a pillar of Toyota's U.S. lineup and produced at TMMK, continued to lead its segment in sales and customer satisfaction.

The earthquake and tsunami also prompted Toyota to formalize a global Business Continuity Plan (BCP) to supplement their Toyota Production System. Through supply chain mapping of its tier-1 suppliers and their sub-suppliers, Toyota was able to produce a list of about 1,500 parts for which it needed to secure alternatives or stockpile. This translated into the BCP requiring key suppliers to stockpile 2–6 months' worth of critical components, including semiconductors. ^{19,20} This strategic fine-tuning to its JIT system proved essential a decade later during another disruption—the global microchip shortage. TMMK's output declined by only 6,000 units relative to pre-pandemic levels, and no layoffs occurred. Production planners made daily decisions to adjust workflows and assess inventory availability. ²¹ As a result of the chip buffer created under the BCP and Toyota's supplier coordination, TMMK sustained nearnormal operations ²⁰. Furthermore, Toyota's reputation for durability and quality helped maintain strong demand—so much so that Toyota overtook GM as the top-selling automaker in the U.S. in 2021 for the first time ever. ²² These experiences underscore how TMMK's ability to weather disruption is not incidental, but rooted in the enduring strength of the Toyota brand, the high quality of its products, and the strategic support provided by the headquarters.

TMMK's culture, grounded in Toyota's core values of respect for people and continuous improvement, also plays a critical role in fostering resilience. Team members are guided by 10 Toyota values (see *Figure 4*) practiced daily across all Toyota plants worldwide including TMMK, deeply embedding a consistent and enduring culture throughout the organization.

Figure 4: Ten Toyota Values



Source: Toyota Europe Website²³

- (Mr. Kerry Creech, Plant President TMMK)

To help new members internalize Toyota's 10 values (the Toyota Way) from day one, TMMK management greets them personally, emphasizing that they are valued, respected, and essential

The 10 values are lived on a daily basis and are ingrained in every Toyota plant—even at the leadership level. Most importantly, they help create a culture where team members feel empowered to live those same values.

to the organization. Beyond technical training in areas such as the Toyota Production System (TPS) and standardized work, new members are also taught the principles of respect for people and community involvement, fostering a strong sense of purpose and a desire to give back. A structured *buddy system* pairs each new member with an experienced mentor, reinforcing the Toyota Way mindset. In addition, new members are encouraged to connect with various affinity groups—such as the Women's Group and Veterans Group—providing opportunities for belonging and deeper engagement. These connections help foster a sense of inclusion, strengthen ties to TMMK, and ultimately reinforce their connection to Toyota as a whole. This systematic approach strengthens cultural continuity and positions TMMK to effectively navigate future changes or disruptions.

TMMK also enables swift adaptation during disruptions through a structured approach known as the Obeya meeting. This format prioritizes addressing critical issues first, beginning with smaller working group discussions, and escalating unresolved matters to the Obeya forum. In this session, team members focus on identifying root causes and potential solutions to challenges that arise.

This problem-solving system (Obeya) works well for us. Regardless of the crisis, the system can be used to manage it effectively. Also, visualization is key, as it enables us to understand what's going on in a very short period of time.

- (Mr. Kerry Creech, Plant President TMMK)

Reflection is another core component of TMMK's resilience and adaptability, consistent with practices across other Toyota locations. It involves continuously learning from every activity, project, or event—regardless of scale. This reflective approach not only helps mitigate future risks but also reinforces and builds on what worked well.

We take time to reflect deeply in almost everything we do. It's a key component of why we're able to be successful—and why we're able to guide team members who may not have the experience.

- (Ms. Sandy Nott, Vice President of Administration TMMK)

Operational Consistency

TMMK's operational consistency and real-time performance are driven by the Toyota Production System (TPS) (see *Figure 5*)—an integrated production philosophy focused on delivering the highest quality, lowest cost, and shortest lead times, while maintaining safety and morale. Rooted in waste elimination and efficiency, TPS reflects Toyota's deep commitment to operational excellence and continuous improvement. In the APEC region, where manufacturing remains as a key driver of economic growth, firms face constant pressure to innovate amid rising labor costs and increasingly globalized supply chains.²⁴ TPS equips TMMK with the agility to adapt to these challenges, positioning it as a model for companies to enhance manufacturing efficiency and sustain regional competitiveness.

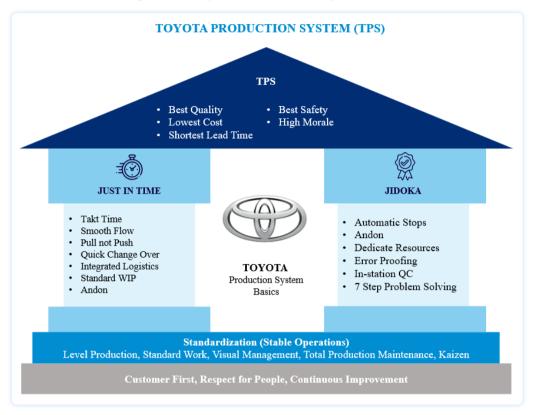


Figure 5: Toyota Production System (TPS)

Source: Materials shared by TMMK

TPS is built on two central pillars: Just-In-Time (JIT) and Jidoka, supported by foundational principles such as standardization, Kaizen, and the Toyota Way values. JIT synchronizes production with customer demand by focusing on producing only what is needed, when it is needed, and in the exact quantity required. This approach minimizes waste, optimizes inventory management, and enables seamless flow through practices such as integrated logistics and maintaining a consistent level of in-process materials between production steps, known as standard Work-In-Process (WIP). Jidoka, on the other hand, integrates human intelligence into automation by empowering machines to stop automatically when abnormalities occur, allowing prompt intervention by team members. This approach ensures built-in quality and prevents defects from advancing through the production line, supported by error-proofing mechanisms, the 7-step problem-solving method, and other relevant practices. A notable practice supporting Jidoka is the Andon system—a real-time visual alert mechanism that empowers workers to signal and resolve issues on the production line. By allowing any team member to stop the line and prompt immediate response from supervisors, defects are caught early, helping maintain the high quality of automotive parts.

The successful implementation of TPS has enabled TMMK to deliver high product quality and resource efficiency, creating exceptional value for customers. ISO 9001:2015—an internationally accepted Quality Management System (QMS) standard that helps organizations enhance performance, meet customer expectations, and demonstrate a strong commitment to quality through consistent delivery and regulatory compliance—further reinforces this operational excellence.

Additional Investments

TMMK has demonstrated a long-standing commitment to Kentucky's economic development through substantial investments—over USD 11 billion since its 1986 groundbreaking, including more than USD 2 billion reinvested in 2024 alone. This includes a USD 1.3 billion investment to support future electrification efforts at its flagship facility²⁵ and a USD 922 million investment to construct a new advanced paint facility (see *Figure 6*), reinforcing Toyota's dedication to high-quality vehicle production and long-term job stability.¹³

Battery Electric Vehicle Production

Advanced Paint Facility

2024

2024

2024

USD 1.3 Billion

USD 922 Million

Part of electrification efforts, will add a battery pack assembly line to support production of an all-new, three-row electric SUV for the U.S. market.

Battery Electric Vehicle Production

Advanced Paint Facility

USD 922 Million

USD 922 Million

Build a new advanced paint facility with the latest technologies to reduce lead time and enhance flexibility for future vehicle production.

Figure 6: TMMK's Recently Announced Investments

Source: Toyota Motor North America Press Release 13,25

The recent investment in new paint shops marks a significant milestone for TMMK, as it enables the facility to operate two state-of-the-art paint operations. TMMK's status as a non-union plant with strong community backing enhances its strategic value, reinforcing TMC's decision to continue investing in the facility. This is further supported by TMMK's position as one of Toyota's more established plants, offering robust team member development programs that cultivate both technical excellence and a strong sense of community engagement. Demonstrating this commitment, TMMK converted an existing building into a dedicated on-site maintenance training center (see *Figure 7*), accelerating the onboarding and upskilling of new team members.

13

On-site Maintenance Training Center

20,000 square feet

Investment

USD 3 million

Unveiled in 2024, the facility equips team members with exposure to new technologies and advanced manufacturing processes—enhancing job security, supporting career advancement, and reinforcing TMMK's commitment to long-term employment.

Figure 7: TMMK Maintenance Training Center

Source: Toyota Motor North America Press Release²⁶

As one of the older plants, TMMK has strong capabilities in developing programs for team members—this serves as a competitive advantage. It closely relates to the continued investments TMMK is fortunate to receive. Securing two new paint shops at a Toyota plant is truly remarkable. TMMK is located in a rural community with strong local support, and all of these factors contributed to TMC's decision to invest further in the plant.

– (Mr. Kerry Creech, Plant President TMMK)

Most of the additional investment is also driven by the plant's inherent competitive advantages: an integrated facility that includes plastic, stamping, and die manufacturing shops, and the distinction of being the only plant with an on-campus powertrain facility. This setup offers logistical efficiencies, further enhanced by the fact that a large portion of the North American supply base is located within 120 miles of TMMK. These strengths have enabled TMMK to grow sustainably and contribute to Kentucky's economy for nearly four decades.

Another core component of TMMK's long-term sustainability strategy is investing in team member development. Prior to the COVID-19 pandemic, over 40 percent of TMMK's workforce had more than 10 years of experience. However, retirements induced by COVID-19 have shifted the composition—now, nearly 50 percent of team members have fewer than four years of service (see *Figure 8*). To address this shift and preserve institutional knowledge, TMMK has invested in initiatives such as ISO 9001 and quality management systems to ensure critical know-how is systematically documented. Another key initiative is the Cross Check program, where team members across three to four shifts collaborate on real-world problem-

solving. Over the course of a week, participants are trained in TPS tools, waste identification, and Kaizen practices, culminating in a presentation that showcases their proposed process improvements.

TMMK WORKFORCE LENGTH OF SERVICE 0-4 years 5-9 years 10-20 years 48% 51% 20+ years 4% 18% 12% 19% Around 34% of the workforce have tenure of 10 years and above, 32% down from 44% in 2017. 15% 2017 2024

Figure 8: TMMK Workforce Length of Service

Source: Materials shared by TMMK

There are numerous team member development initiatives in place as an investment in our people, which is especially important given the shift in team member tenure.

– (Ms. Janette Angelica Hostettler, Vice President of Manufacturing TMMK)

Industrial Impact

Camry's evolution has played a pivotal role in shaping TMMK's impact on the automotive industry. As one of the earliest plants outside Japan—and the first to produce the Camry in North America—TMMK has been instrumental in establishing the model's legacy. Despite changes in leadership over the years, the plant's unwavering commitment to quality has ensured consistent excellence. The Camry has earned numerous accolades, including multiple J.D. Power awards (see *Figure 9*), reinforcing its reputation for exceptional design and manufacturing reliability.

"

2023
2024

1 Highest Quality Midsize Vehicles
1 Highest Quality Midsize Vehicles
2 Highest Dependability Midsize Vehicles

J.D. Power quality ratings and awards focus on issues reported by verified owners, serving as a strong indicator of a vehicle's long-term durability. On the other hand, dependability ratings specifically assess reliability by measuring the type and frequency of problems experienced over the past 12 months with vehicles that are three years old.

Figure 9: Recent J.D. Power Awards for the Toyota Camry

Source: J.D. Power^{27, 28}

While the overall mid-size sedan segment has declined, Camry has continued to gain market share, with annual sales still reaching over 300,000 units. This sustained success over nearly four decades stands as one of TMMK's most significant contributions to the industry.

– (Mr. Kerry Creech, Plant President TMMK)

Another major contribution to the automotive industry has been the development of a robust supplier ecosystem. When TMMK first began operations, local supplier demand was limited—but as the plant expanded, it helped catalyze supplier growth and create substantial employment opportunities. As Toyota's first U.S. manufacturing facility, TMMK's strategic location in Georgetown, Kentucky, provides close proximity to its supply base, consisting of over 350 suppliers economy-wide in 2024, including more than 100 in Kentucky.²⁹ This geographic advantage has supported efficient logistics and strengthened the broader economic landscape.

TMMK is the first wholly owned Toyota vehicle plant in the U.S. When this plant was built, there were few suppliers nearby due to the relatively small demand at the time. As we grew, so did our suppliers. As a result, most of the supply situations we have today are directly linked to TMMK's location in Georgetown, KY.

– (Ms. Sandy Nott, Vice President of Administration TMMK)

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TMMK also contributes to the broader automotive industry through the active community engagement of its leadership team. Many of TMMK's senior leaders hold influential positions within key local organizations, helping to shape the manufacturing and economic landscape of Kentucky. Plant President Kerry Creech serves on the Board of Directors of the Kentucky Association of Manufacturers, advocating for industrial growth and innovation. Likewise, Vice President of Manufacturing Janette Hostettler sits on the Board of Directors of the Kentucky Chamber, working to unite the business community and drive progress beyond the automotive sector. These leadership roles create positive ripple effects, reinforcing TMMK's position as both an industry leader and a community partner.

In addition, TMMK plays a critical role in bolstering Kentucky's broader economy—not only through direct employment of approximately 10,000 team members across 80 of Kentucky's 120 counties, but also through its wide-reaching ripple effects created by its procurement and production activities. The plant's workforce drives local demand for housing, education, healthcare, and everyday services, strengthening small businesses and public infrastructure across surrounding communities. Coupled with TMMK's vast supplier network and demand for automotive components, about 30,000 direct, indirect, and spin-off jobs are supported. Overall, this has resulted in Toyota's indirect investment impact in Kentucky reaching up to USD 326 million as of 2022. This ecosystem significantly amplifies TMMK's overall economic footprint in Kentucky.

When we first located in this town, we were essentially in a farmer's field—there wasn't much happening in Georgetown at the time. Since then, the city has grown significantly in both population and infrastructure. Much of that growth has come through strong partnerships between TMMK with key local leaders, including the mayor, the county judge, and the city council. Those partnerships have not only contributed to our success but have also helped Georgetown become one of the best communities in Kentucky.

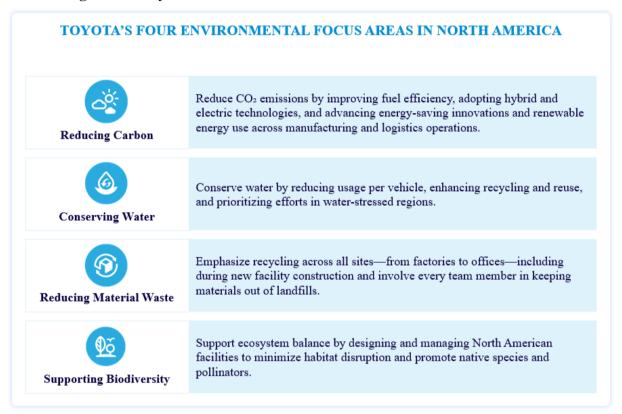
– (Ms. Sandy Nott, Vice President of Administration TMMK)

2.1.2 Relationship

CSR Initiatives

A key pillar of TMMK's corporate social responsibility (CSR) is its environmental involvement. With around 10,000 team members committed to protecting the planet, TMMK integrates sustainability into its daily operations as part of Toyota's core values. The plant also actively promotes environmental sustainability in line with Toyota's North American environmental initiatives, which are guided by four core focus areas: reducing carbon emissions, conserving water, reducing material waste, and supporting biodiversity (see *Figure 10*). These pillars shape the company's planning, strategies, and on-the-ground actions.

Figure 10: Toyota's Four Environmental Focus Areas in North America



Source: Toyota Kentucky Biodiversity Trail Website³⁰

As part of its focus on reducing carbon emissions, TMMK recently established a solar farm on its property, which is scheduled to officially launch in August 2025 (see *Figure 11*). Once operational, the solar facility will generate enough electricity to fully power the stamping shop and offset up to 90 percent of the Lexus line's electricity usage. This initiative supports Toyota's broader commitment to achieving carbon neutrality across all North American operations by 2035.

Overview

Impact

Offsets 90% Lexus line electrical usage

Offsets 100% stamping shop electrical usage

TMMK's solar farm, set to begin operations in August 2025, will generate over 16 million kWh annually to support renewable energy use.

Enable 20,216 vehicles to be created using clean and renewable energy

Figure 11: TMMK Solar Farm Installation

Source: Materials shared by TMMK

Another notable initiative is TMMK's long-standing membership in the Kentucky Excellence in Environmental Leadership (KY EXCEL) program since 2006, which supports its commitment to water conservation as part of Toyota's environmental focus areas. In line with this commitment, TMMK launched a Reverse Osmosis (RO) Water Reduction initiative to conserve water and minimize wastewater (see *Figure 12*). By optimizing the RO system, the plant has improved water production efficiency, standardized RO water usage, and achieved measurable reductions in overall consumption.

TMMK REVERSE OSMOSIS WATER REDUCTION INITIATIVE Goals **Impact** TMMK proposed to reduce overall water usage by minimizing the consumption of Water Reverse Osmosis (RO) water in its paint Conservation 100% reduction of shops, while still maintaining the required wastewater (within process) quality standards. Additionally, reducing RO water usage in the paint shops will help minimize the volume of Wastewater wastewater generated by painting operations, Reduction 1,512,000 gallons of water use contributing to more efficient and sustainable prevented water management. Reducing both water consumption and wastewater generation also lowers operating Cost costs by decreasing expenditures on water Savings procurement and wastewater treatment and USD 7,862 saved disposal.

Figure 12: TMMK Reverse Osmosis Water Reduction Initiative

Source: Kentucky Energy and Environment Cabinet³¹

To support its material waste reduction goals, TMMK partnered with Waste Services of the Bluegrass (WSB) in 2014 to launch the region's first business-to-business landfill gas-to-energy initiative. The facility captures gas produced from solid waste and uses it to fuel generators that produce electricity (see *Figure 13*). Toyota estimates that the locally generated landfill gas provides enough energy annually to support the production of 10,000 vehicles, while reducing landfill greenhouse gas emissions by up to 90 percent—contributing to improved air quality for the surrounding community.³²

Figure 13: TMMK Landfill Gas to Energy Initiative

TMMK LANDFILL GAS TO ENERGY INITIATIVE

Overview

Step 1: Municipal Solid Waste breakdown naturally in landfills, creating landfill gas, which comprises about 50% methane

Step 2: A network of wells collects and prepares the landfill gas

Step 3: Landfill gas is used to fuel generators, producing renewable electricity

Step 4: Electricity is transmitted through underground lines to Toyota's manufacturing plant in Georgetown, Kentucky

Step 5: Renewable electricity created from the landfill will be used to power the production of 10,000 vehicles per year

Landfill greenhouse gas emission will be cut by as much as 90 percent, which adds up to better air quality for the local community.



Source: Toyota Motor North America Press Release³³

TMMK also supports biodiversity through its Biodiversity Trail (see *Figure 14*), a living example of their ongoing commitment to preserving the unique balance of native plants, animals, and ecosystems in Georgetown, Kentucky. Spanning over 1.8 miles across five distinct paths, the trail embodies TMMK's dedication to the Japanese concept of Morizukuri—which means 'to create a forest'—by planting clusters of trees and grasses to foster natural habitats.³⁰

The Toyota Biodiversity Trail in Kentucky is open to both the public and employees, helping raise awareness about the importance of local ecosystems. The trail features rare plant species and native Kentucky trees, supported by seven natural landmarks that enhance its educational and ecological value.

Figure 14: TMMK Biodiversity Trail

Source: Toyota Kentucky Biodiversity Trail Website³⁰

All of these efforts reflect Toyota's commitment to the Toyota Environmental Challenge 2050 (Challenge 2050)—a set of six ambitious, global goals aimed at eliminating negative environmental impacts while creating positive value for society and the planet (see *Figure 15*). Launched by Toyota Motor Corporation (TMC) in 2015 after extensive research and stakeholder consultation, the challenges are divided into two pillars: achieving carbon neutrality across the vehicle life cycle and delivering a net positive environmental impact. While carbon neutrality remains a central focus—highlighted under 'Achieve Carbon Neutrality'—Toyota also pursues broader sustainability goals under 'Achieve a Positive Environmental Impact,' including water conservation, circular resource use, and biodiversity protection. Through Challenge 2050, Toyota team members worldwide are united in putting the company's global vision of Respect for the Planet into action.

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TOYOTA ENVIRONMENTAL CHALLENGE 2050 Achieve Positive Environmental Achieve Carbon Neutrality Impact Life Cycle Zero CO2 Emissions Challenge of Minimizing and Challenge Optimizing Water Usage New Vehicle Zero CO₂ Emissions Challenge of Establishing a Recycling-based Society and Systems Challenge Challenge of Establishing a Future Plant Zero CO₂ Emissions Challenge Society in Harmony with Nature Toyota North America is committed to supporting Challenge 2050 through concrete, measurable goals. For example, in the U.S., Toyota aims for 70% of new vehicle sales (excluding performance vehicles) to be electrified by 2030. Additionally, in North America, the company targets sourcing at least 45% of its total electricity purchases from renewable sources by FY2026.

Figure 15: Toyota Environmental Challenge 2050

Source: Toyota Motor North America Website³⁴

TMMK's CSR initiatives also extend beyond environmental stewardship to include strong commitments to social impact. One such initiative is the Toyota4Good program, which empowers team members to actively contribute to their communities. Through this program, Toyota matches eligible donations and provides grants to qualified nonprofits—up to USD 10,000 per person, effectively doubling the impact of individual contributions. To date, the program has channeled over USD 154 million toward education, infrastructure, and disaster relief across Kentucky. This initiative further exemplifies TMMK's role as a socially responsible corporate citizen that prioritizes community well-being and employee engagement.

The most impactful part of our CSR initiatives is our team members, driven by their passion. To empower them to contribute meaningfully to their communities, Toyota has the Toyota4Good program—one of the largest initiatives we have in place to support the community.

– (Mr. Kerry Creech, Plant President TMMK)

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Community and Stakeholder Engagement

TMMK's culture of community engagement was shaped in large part by Fujio Cho, who served as plant president from 1988 to 1999 and chose to live in Georgetown. His active involvement in the local community set a lasting example for TMMK's leadership, encouraging all team

members to foster strong local ties. This close relationship not only keeps TMMK informed about local developments, but it also enables the company to implement positive changes that benefit both the community and the plant.

Fujio Cho lived in Georgetown and was very involved in the community. He developed that culture for us—to really be a part of the community. He wanted us to be involved and to make sure that the community leaders know us. We want to make sure we are involved; if we're not involved, we don't understand what's going on locally in the community, and we can't make changes for the better of the community and our plant.

– (Mr. Kerry Creech, Plant President TMMK)

TMMK is deeply committed to building lasting relationships with the community through a range of initiatives. Since beginning operations in 1988, TMMK has contributed over USD 163 million in community donations.³ Notably, in 2021 alone, TMMK donated USD 3 million to support more than 100 local and state nonprofits, with a focus on education, human services, disaster relief, workforce sustainability, and the environment.³⁵

In recent years, TMMK has actively engaged with the community through donations, volunteer efforts, and hybrid initiatives. In 2023, TMMK donated USD 125,000 to the University of Kentucky's new Appalachian Center for Assistive Technology (ACAT), which supports individuals with disabilities in eastern Kentucky. Covering the 2023–2024 period, the donation supports program planning, capacity building, makerspace development, and bridging grant and staffing needs to ensure the Center's long-term impact.³⁶ During the COVID-19 pandemic, TMMK donated USD 50,000 to the United Way of the Bluegrass to support local recovery efforts. In addition, the plant provided several in-kind donations, including 7,400 pairs of gloves, 2,021 N95 masks, 250 safety glasses, 180 Tyvek suits, 19 bump caps/face shields, and 10 replacement face shields, demonstrating its commitment to community well-being even during challenging times.³⁷

TMMK also collaborates with various partners to engage with the community and create a broader impact, particularly in the areas of education and health (see *Figure 16*). These engagements are typically recurring and require TMMK's continued involvement—whether through funding, volunteer efforts, or strategic input. A notable example is Toyota's long-standing partnership with the Special Olympics, which began over four decades ago with regional sponsorships and expanded to a global partnership in 2017. The organization's core values of inclusion, respect, and dignity closely align with Toyota's foundational philosophy of Respect for People and its vision of 'mobility for all'. In Kentucky, Toyota team members actively support this initiative by partnering with Special Olympics athletes and participating in events that bring together athletes from across Kentucky to compete in both traditional and Unified Sports competitions.

Through the disbursement of USD 163 million in community donations, and meaningful partnerships such as its collaboration with Special Olympics, TMMK demonstrates alignment with APEC's principles of accountability, equal partnership, shared responsibility, mutual respect, and pursuit of common interests and benefits.³⁸

Figure 16: TMMK Community Engagement Partnership

TMMK COMMUNITY ENGAGEMENT PARTNERSHIP



Special Olympics

In Kentucky, Toyota team members actively partner with Special Olympics athletes—sharing experiences like bowling together—and supporting events that bring athletes from across the state to compete in Unified Sports competitions.



Signature Walk

In 2022, TMMK partnered with Honor Flight Kentucky as the beneficiary of its Signature Walk initiative, raising approximately USD 94,000 to support free honor flights for veterans.



Bud Gates Bike Build

The Toyota Christian Fellowship Group, along with volunteers from TMMK, partnered with the Toyota South dealership to assemble bicycles for children in foster care. Participants worked together to build and donate approximately 100 bikes.



Food Box Build

During Hunger Action Month in 2021, TMMK employees partnered with God's Pantry Food Bank to help combat food insecurity, assembling over 4,000 food boxes—enough to feed nearly 2,000 families across Kentucky.



Therapy Car

TMMK partnered with the Saint Joseph Hospital Foundation to donate a modified Toyota Camry to the hospital's rehabilitation department. The vehicle enables patients to safely practice entering and exiting a car before returning home.



Go Baby Go

TMMK partnered with the Go Baby Go Foundation to help empower toddlers with mobility challenges to lead more active lives. As part of this partnership, team members from TMMK built and customized 100 adaptive vehicles for children.



Miracle League

Established in 2006 with Rotary Club of Lexington, the Toyota Miracle League provides individuals with physical, developmental, or emotional disabilities the opportunity to experience the joy of playing baseball. Today, the league serves more than 200 players.

Source: Toyota Motor North America Website^{39, 40}, WKYT⁴¹, WTVQ^{42, 43}, Toyota Motor North America Press Release⁴⁴, Toyota Bluegrass Miracle League Website⁴⁵

We have nearly 10,000 team members, with most coming from across Kentucky—especially the Georgetown area. So, it's not just the leadership; our team members themselves are a major voice in the community. And because of that, it's important that we give back to the community, so our team members can continue to share the story of TMMK.

– (Ms. Janette Hostettler, Vice President of Manufacturing TMMK)

Company Reputation / Stakeholder Satisfaction

TMMK's longstanding operations and significant investments in Kentucky have contributed to robust economic growth, transforming lives, supporting economic development, and improving household incomes. Underpinned by a strong culture of community engagement and the core value of Respect for People, TMMK has earned a positive public perception. Its continued commitment to regional development has been widely recognized by key stakeholders, including government entities, industry partners, and the local community.

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TMMK received the 2024 Corporate Investment & Community Impact (CiCi) Award from the Trade & Industry Development magazine, which recognizes projects across the U.S. that deliver significant capital investment and meaningful community impact. The award was accompanied by public commendations from Kentucky Governor Andy Beshear, Scott County Judge/Executive Joe Pat Covington, and Georgetown Mayor Burney Jenkins—highlighting TMMK's strong reputation among government stakeholders. This positive relationship has been fostered by Toyota's continued efforts to engage proactively with public officials, seek regular feedback, and ensure transparency through timely updates on its initiatives. 46

We have regular check-ins with community leaders—where the mayor and our judge in Georgetown come to the plant and we listen to their feedback. We try to keep them informed. These partnerships are valuable because they understand that we genuinely want their input and are committed to continuous improvement. That's not just at the local level, but the same kind of engagement also happens at the state level, and even to some extent in D.C. We listen, we ask, and we receive feedback—which I think is important. We want to understand our reputation.

– (Ms. Sandy Nott, Vice President of Administration TMMK)

TMMK is also well-regarded among industry partners, having earned 10 Initial Quality Plant Awards from J.D. Power and Associates—including four gold J.D. Power Awards—demonstrating the plant's strong commitment to quality within the U.S. automotive sector. ⁴⁷ In addition, Toyota Motor North America, in collaboration with the Wildlife Habitat Council (WHC) and GM, received the Keystone Leadership in Environment Award at the 23rd Annual Keystone Policy Center Awards Dinner in 2016. This recognition was made possible through Toyota's partnership with WHC, which began in 2008 when TMMK became the first Toyota plant certified under WHC's 'Wildlife at Work' and 'Corporate Lands for Learning' programs. ⁴⁸ That same year, the U.S. Environmental Protection Agency (EPA) recognized TMMK as one of 70 manufacturing plants economy-wide to earn the Energy Star certification for superior energy performance in 2015. Collectively, these plants saved a record amount of energy, reduced energy bills by USD 476 million, and cut greenhouse gas emissions by over five million metric tons. ⁴⁹ These achievements reflect TMMK's strong reputation for both operational excellence and environmental sustainability within the industry.

TMMK's unwavering commitment to volunteerism, philanthropy, and community engagement—particularly in the field of education—has significantly strengthened its reputation within the local community. In 2009, Volunteers of America of Kentucky honored TMMK with the Volunteer Spirit Award in recognition of its financial contributions, volunteer efforts, and consistent encouragement for employee participation in community organizations. That year alone, 1,432 TMMK team members volunteered across various non-profit organizations throughout Kentucky. More recently, in 2023, the J.B. Speed School of Engineering at the University of Louisville recognized TMMK as its Outstanding Corporate Partner. The award reflects TMMK's long-standing support in developing engineering talent through co-op opportunities and scholarships. These initiatives—extending beyond traditional contributions, also champion workforce sustainability, making TMMK a model corporate partner within the community.

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We're such a large employer, and I think the onus is on Toyota to ensure that it remains a good corporate partner. To do that, it's essential to listen to and understand feedback from community leaders. That sense of responsibility is shared by all the officers at TMMK—something that has remained consistent through the many leadership changes over the years.

– (Ms. Sandy Nott, Vice President of Administration TMMK)

Conflict Resolution Mechanisms

TMMK's resilience has been shaped by various internal and external challenges over the years. Despite these pressures, the plant has consistently delivered high-quality products and remained as one of Toyota's key manufacturing hubs in the U.S. A critical factor behind this sustained performance is TMMK's ability to respond swiftly and effectively to conflicts—mitigating potential escalations and maintaining operational stability, as demonstrated in recent years.

We believe there's no need for a third party to intervene or negotiate between the leadership team and our team members. There are already many opportunities in place for team members to speak directly with us about any issues or concerns they may have.

- (Mr. Kerry Creech, Plant President TMMK)

In 2023, Toyota faced a significant challenge involving a sensor defect that could potentially prevent airbag deployment, prompting the recall of approximately one million vehicles—including several models built at TMMK. The recall affected various Toyota and Lexus models from the 2020 to 2022 model years, including the Avalon, Camry, Highlander, RAV4, Sienna, Corolla, and several hybrid variants. To address the issue and mitigate further risk, Toyota mobilized its dealer network to inspect and, if necessary, replace the faulty sensors at no cost to vehicle owners. Additionally, Toyota proactively notified affected customers and provided a dedicated contact channel to support those with concerns. This swift, transparent, and customer focused response highlights Toyota's strong commitment to safety, accountability, and long-term customer trust.⁵²

2.1.3 Human Resource Development

Local Job Creation

TMMK has made a substantial contribution to local employment and economic development in Kentucky. When operations began in 1988, the plant employed approximately 1,100 people.⁵³ By 2024, that number had grown tenfold to around 10,000³—driven by increased product complexity, a broader vehicle lineup, and expanded operational capacity. Beyond direct employment, TMMK's broader economic footprint is significant, supporting an estimated additional 20,000 jobs across Kentucky in 2017 through indirect and spin-off employment.⁵⁴ This underscores TMMK's pivotal role in strengthening Kentucky's economy.

The content of the Camry has changed significantly, with a notable increase in both volume and complexity. As a result of this added content and the plant's expansion, there has also been a corresponding increase in jobs and employment at the facility.

- (Mr. Kerry Creech, Plant President TMMK)

Today, TMMK operates three targeted hiring tracks for employment opportunities—(1) the Maintenance Transition Program (MTP), (2) Direct Hires, and (3) Military Veterans—designed to bring in talent aligned with its evolving workforce needs (see *Figure* These tailored pathways enable TMMK to source candidates with the right capabilities, while also advancing its commitment to workforce inclusion. To broaden access and opportunity across Kentucky, Toyota actively engages with over 80 of Kentucky's 120 counties, with a focus on Central Kentucky. Its outreach efforts include attending career fairs, engaging with high school industrial classes, and building early relationships with students to strengthen the future talent pipeline.

TMMK HIRING PIPELINE Total Hires (2024) Targeting production staff to be retrained and MTP 54 upskilled for transition into maintenance technician roles DIRECT Targeting experienced external technicians to gain 127 HIRES access to specialized skills Targeting military veterans, recognizing the value of MILITARY their technical training and disciplined work ethic as Unknown VETERANS strong foundations for the roles within the plant.

Figure 17: TMMK Hiring Pipeline

Source: Materials shared by TMMK during site visit

Building on these employment opportunities, TMMK provides high-quality jobs in Kentucky by offering competitive and progressively structured wages—with competitive increments—alongside a comprehensive package of employee benefits (see *Figure 18*). These include healthcare and retirement plans among others—demonstrating a holistic approach to employee well-being. By providing benefits that go beyond industry requirements, TMMK not only strengthens its ability to attract and retain top talent but also reinforces its broader role as a responsible corporate citizen committed to the welfare of its workforce and community.

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Figure 18: TMMK Wages and Employee Benefits

Source: Materials shared by TMMK

We want to remain competitive in the automotive industry and provide a premium offering to the local market. These employee benefits provided by TMMK are part of what's necessary to make that happen.

– (Mr. Kerry Creech, Plant President TMMK)

Local Workforce Training & Skills Development

As one of Toyota's most advanced manufacturing facilities globally, TMMK's commitment to talent development has been fundamental to its long-term success in Kentucky. Operating at a scale that supports around 10,000 direct jobs, TMMK recognizes that sustaining such a workforce requires continuous investment in training and skills development. Furthermore, as TMMK increases its investments in electrification and advanced manufacturing technologies, the need for a highly skilled workforce becomes even more critical. Over the years, TMMK has implemented a comprehensive approach to workforce readiness—combining structured

onboarding, technical upskilling, and early-career programs to meet the evolving demands of automotive manufacturing. These initiatives ensure that both new hires and seasoned team members are equipped with the capabilities required to operate in a fast-changing industrial landscape. These efforts align with APEC's 2040 vision of fostering a resilient, innovative, and sustainable Asia-Pacific economy.

One of TMMK's most impactful initiatives in local workforce development is its pioneering role in the establishment of the Federation for Advanced Manufacturing Education (FAME) a collaboration among regional manufacturers aimed at developing a robust pipeline of highly skilled talent via career-pathway, apprenticeship-style programs (see *Figure 19*). TMMK's leadership in this space traces back to the 1990s, when it developed rigorous in-house training programs to prepare multiskilled technicians for advanced manufacturing roles. Over time, TMMK experimented with various training formats—partnering with local community colleges for academic components of the curriculum, moving all of classroom learning to a dedicated space configured to resemble a factory, and having a group of companies come together to oversee and manage the training program. 55,56 These early efforts, emphasizing hands-on learning and technical versatility, laid the foundation for what would evolve into the widely recognized FAME initiative. This initiative began in 2010 when TMMK partnered with Bluegrass Community and Technical College (BCTC) to launch the Advanced Manufacturing Technician (AMT) program, originally piloted at the Toyota Kentucky plant. ⁵⁷ The program's success led to its expansion across all Toyota manufacturing sites in the U.S. by 2017. Recognizing its economy-wide potential, the Manufacturing Institute—the workforce and education partner of the National Association of Manufacturers—assumed operational and strategic stewardship of FAME in 2019, scaling its impact across the U.S.⁵⁸

FAME OVERVIEW

Those enrolled into a FAME training program will start a work/study program for 2 years to earn an associate degree.

FAME Students attend classes at a local community college two days a week and will work at least 24 hours a week for a local, sponsoring employer – being paid a competitive wage.

Participants in the AMT program will engage in hands-on training and education, including technical manufacturing skills and professional behaviors.

Participants may graduate with little to no student loan debt and have the opportunity for full-time employment with a sponsoring employer.

Figure 19: FAME Overview

Source: FAME Website⁵⁹

Over time, the Advanced Manufacturing Technician program grew beyond just Toyota's involvement, so it was opened up to other companies. Back then, Toyota hosted the classes at its facility in Georgetown. When the opportunity came, Toyota helped and partnered with a local college to support the creation of an actual college campus in Georgetown County.

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– (Ms. Lynn Godsey, Director of BCTC's Georgetown Campus)

Today, TMMK continues to run the AMT program in Kentucky in collaboration with BCTC. Designed to meet evolving industry demands, the program offers a two-year associate degree for high school graduates that integrates a rigorous technical curriculum with hands-on, paid work experience. The AMT program adopts a structured work-study model in which students spend three days gaining real-world experience at sponsoring manufacturers, and two days attending classes at BCTC weekly. The curriculum offers hands-on training in areas such as maintenance, robotics, automation, and machining—equipping students with the technical competencies required in modern manufacturing. In addition to picking up technical skills in areas like PLC programming and electrical systems, students are required to do public project presentations and adhere to strict attendance—reinforcing the behavioral expectations aligned with Toyota's lean manufacturing culture. Toyota's involvement in the program goes far beyond curriculum support; it includes equipment contributions, scholarships, and mentorship opportunities, reaffirming the company's long-term commitment to workforce development and its broader role in advancing manufacturing talent across the region.

To further support workforce development under the AMT program, the BCTC Advanced Manufacturing Center (BAMC) was established near the TMMK plant (see *Figure 20*). In 2014, the Kentucky General Assembly approved funding for the design and construction of a new facility dedicated to advancing technical education and training. Opened in 2017, the BAMC has since provided customized workforce training and certification services—not only for TMMK, but also for a broader network of regional manufacturers—strengthening the talent pipeline across Kentucky's advanced manufacturing sector.

Figure 20: BCTC Advanced Manufacturing Center



Source: Springfield-Washington County Chamber of Commerce⁶⁰

Building on this foundation, the AMT program has become a benchmark for industry-academic partnerships. The program enables participants to engage in joint recruitment processes with companies such as Lockheed and Florida Tile. Student placement is conducted through a neutral 'draft-style' selection process that ensures alignment between employer needs and student interests. Each year, 20–30 students graduate from the program with growing enrollment (see *Figure 21*), with over 95 percent of completers successfully securing employment—demonstrating the program's effectiveness in addressing regional workforce needs.

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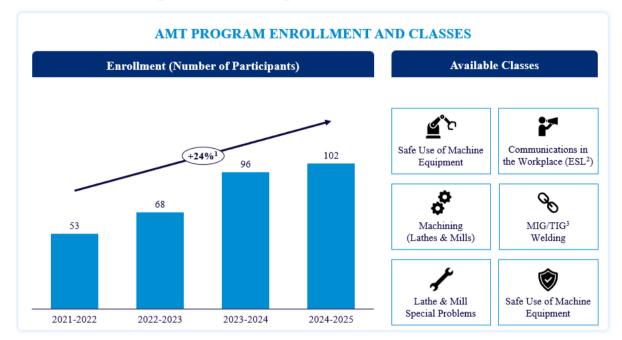


Figure 21: AMT Program Enrollment and Classes

Source: Materials shared by BCTC

Note: 1) The surge in enrollment can be partly attributed to the COVID-19 pandemic, which highlighted the importance of automation and digital literacy—prompting more individuals to join upskilling programs (pull factor). Additionally, the influx of people relocating from eastern Kentucky, driven by coal mine closures and the search for new employment opportunities, could have also contributed to the growing participation near the Kentucky plant (push factor). 2) ESL stands for English as a Second Language; This class caters to non-native English-speaking employees, ensuring proficiency in workplace communication and safety protocols. 3) MIG (Metal Inert Gas) and TIG (Tungsten Inert Gas) are common arc welding processes.

We've had a long-standing history with Toyota in upskilling their workforce. The area where we've helped Toyota the most in terms of workforce development has been machining, along with extensive welding training—helping their fabricators and other roles in the plant build skills in specific welding techniques.

– (Ms. Erin Tipton, Vice President of Advancement and Workforce Development BCTC)

To ensure the continuity and relevance of the program, TMMK—together with BCTC—maintains a structured approach to program governance and stakeholder alignment. A biannual advisory board meeting, hosted by BCTC, brings together Toyota and other local industry partners to ensure that the curriculum evolves in line with shifting industry requirements. In addition, quarterly review meetings, initiated by BCTC in collaboration with Toyota, serve as formal checkpoints to assess training outcomes and respond to emerging workforce needs. These sessions include participation from both BCTC's leadership and Toyota's workforce development team. Beyond academic collaboration, Toyota also engages with Commerce Lexington, the regional chamber of commerce, to stay attuned to broader labor market trends. Insights from these forums directly inform Toyota's ongoing collaboration with BCTC to bridge skills gaps and ensure that programs remain aligned with regional economic priorities.

To complement the AMT program and strengthen the local talent development pipeline, TMMK launched the 4T Academy in 2024—an early career initiative aimed at high school students. This two-year education and manufacturing program is part of TMMK's broader effort to support workforce development from an early stage. The 4T Academy blends a tailored classroom curriculum with hands-on production line experience, allowing students to gain practical exposure to real-world manufacturing environments. The program is anchored on three goals: to directly engage with students, foster meaningful partnerships with local schools, and spark long-term interest in manufacturing—ultimately helping shape the next generation of skilled professionals (see *Figure 22*).



Figure 22: 4T Academy Overview

Source: Materials shared by TMMK

Zooming in on its goal to engage students and collaborate with local schools, TMMK launched the 4T Academy in partnership with Scott County High School and Great Crossing High School. In their junior year, students follow a hybrid model—spending four days a week in school with a dedicated 4T teacher and one day at the 4T Academy, where they are introduced to Toyota's curriculum by experienced instructors. As they enter the latter part of their senior year, students transition into a paid internship at TMMK for four days a week (see *Figure 23*). Upon successful completion of the program, participants may receive a conditional job offer to join Toyota as full-time team members—extending the impact of the program beyond graduation.

4T ACADEMY STRUCTURE Scott County Highschool These schools that follow the CTE TOYOTA pathway and partner with TMMK will conduct classes with a 4T-certified TMMK Great Crossing Highschool 1st Semester 2nd Semester · 4 days per week learning curriculum at school with a 4T teacher 1 day per week at 4T Academy learning Toyota curriculum with a Toyota Junior Year instructor 3 days per week learning curriculum 1 day per week learning curriculum at school with a 4T teacher at school with a 4T teacher Senior Year 2 days a week at 4T Academy 4 days per week at Toyota doing a learning Toyota curriculum with a Paid Internship Toyota instructor Upon successful completion of the program, participants may receive a conditional job offer to join Toyota as full-time team members

Figure 23: 4T Academy Structure

Source: Materials shared by TMMK

To support its goal of cultivating a passion for manufacturing among the next generation, the 4T Academy offers a six-credit curriculum comprising coursework and activities focused on manufacturing—delivered by dedicated teachers—alongside 336 hours of hands-on training with Toyota (see *Figure 24*). This learning experience is further enhanced by a simulated facility that mirrors real plant operations—equipped with a skills dojo and a moving production line—to provide students with practical understanding and direct exposure to industry-relevant tools and processes. By investing in local talent through programs like the 4T Academy, TMMK supports broad-based economic growth, ensuring economic benefits reach wider communities and fostering broad access to high-quality jobs.

4T COURSE AND KEY FACILITIES Course and Training **Key Facilities** Toyota Training Course Toyota Way Introduction to Manufacturing Safety Hazards Robotics: A-HA Applications and TPS Careers Tool Training Junior Year Introduction to Moving Line Artificial Intelligence Standardized Work Skills Dojo FIFO Plant Safety Leadership Career and Financial Quality Circles Management Work Hard Moving Line Toyota Internship 5-S Culture Senior Year Andon Training OJT · Internship 6 credits 336 hours

Figure 24: 4T Course and Key Facilities

Source: Materials shared by TMMK

To strengthen early engagement with local talent and bridge awareness of the 4T Academy and AMT program, TMMK launched the Driving Possibilities initiative. This program focuses on PreK–12 education and aims to close educational gaps through innovative, hands-on STEM learning that leverages the strengths of equal-partner collaborations. In partnership with Scott County and Fayette County, the initiative targets three strategic areas: expanding literacy and language resources, building strong education—industry linkages, and addressing transportation barriers that limit access. By 2025, Driving Possibilities had reached 12,370 students across both Scott and Fayette counties (see *Figure 25*).

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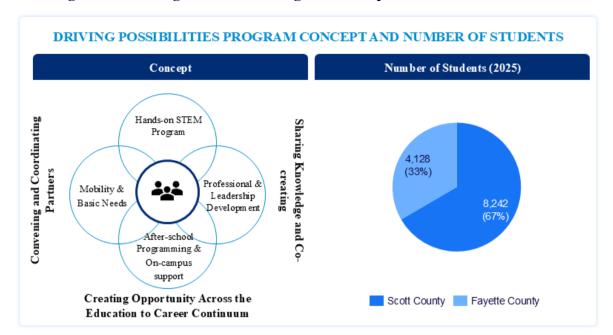


Figure 25: Driving Possibilities Program Concept and Number of Students

Source: Materials shared by Driving Possibilities Program Manager, Fayette Foundation Website⁶³

Through collaboration with community organizations and businesses, Driving Possibilities delivers targeted programming that ranges from STEM-focused curriculum to field trips, job shadowing opportunities, apprenticeships, and mentorships. It also includes Career and Technical Education (CTE), which equips students with job-specific technical and vocational skills. This integrated approach equips students with both foundational knowledge and real-world exposure, helping to cultivate a future-ready workforce. TMMK maintains strong, ongoing relationships with partner schools, regularly mobilizing volunteers and engaging business partners to offer perspectives often missing from traditional public education systems.

Our relationship with TMMK has always been really strong throughout their time in Kentucky. We have several liaisons involved in different areas, and they also have a dedicated main point of contact for community relations. TMMK actively organizes volunteers and supports us across our workforce development efforts. They consistently bring a valuable business perspective—something that's often missing within the public school system.

– (Ms. Carrie Rogers, Project Manager of Driving Possibilities Program in Fayette County)

Toyota's early career preparation initiatives have had far-reaching impacts, shaping regional workforce strategies and accelerating industrial development beyond its own operations. The programs serve as an economy-wide model for industry-academic collaboration, inspiring other manufacturers to invest in similar workforce development efforts. By establishing robust training and education pathways, Toyota has significantly strengthened the regional talent pipeline, creating shared value across multiple industries. The focus on in-demand skills such as automation and robotics has enhanced the region's competitiveness, making it more attractive to manufacturing investments and supporting long-term economic growth.

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Beyond early career initiatives, TMMK also provides on-site structured training programs for new hires to ensure a smooth and effective transition into the workforce. The onboarding process begins with orientation and is followed by Dojo training, which is divided into two key phases. First, new hires participate in the Safety Dojo, where they are introduced to Toyota's safety culture and protocols. They then progress to the Shop Dojo, which focuses on developing fundamental, shop-specific skills and familiarizing them with the unique aspects of their assigned roles. This combined Dojo training typically lasts between four and six weeks, depending on the shop.

After completing the Dojo, employees are informed of their line assignments and begin offline standardized work training, which usually spans about two weeks. During this period, they learn the specific tasks required for their roles in a controlled setting before transitioning to on-the-line training, where they apply their skills in a real production environment only after they have demonstrated sufficient proficiency. This phased training approach ensures that new hires are well-prepared, safe, and aligned with Toyota's production standards before fully integrating into operations.

New hires are accompanied by a mentor until it is confirmed—both from a safety and quality perspective—that they consistently follow standardized work and are ready to operate independently. Typically, new hires are trained in two job rotations: one primary role and a secondary role as well.

– (Ms. Janette Hostettler, Vice President of Manufacturing TMMK)

In addition to structured on-site training, TMMK offers a variety of learning and development opportunities that foster continuous improvement and critical thinking among its team members. One such initiative is the Maintenance Transition Program, which allows production team members with interest or aptitude in technical work to shift into maintenance roles through targeted training and support. TMMK also offers a Practical Work Experience Program for team members who have recently earned a degree but have limited professional experience. This program provides a six-month to one-year rotation—typically in administrative areas such as production planning or human resources—giving participants exposure to white-collar functions and career exploration opportunities. To further support lifelong learning, every team member is also eligible for up to USD 5,000 annually in education benefits. Beyond formal education, TMMK also identifies high-performing team members from mass production to serve in pilot roles for upcoming vehicle models. These individuals work directly on vehicle planning and development, collaborating with design teams in Michigan, Japan, or other Toyota plants. This hands-on exposure to next-generation product development is highly tailored and reflects Toyota's commitment to internal talent mobility and innovation.

Technology is changing, and much of the focus in that area is on upskilling for the new types of skills that are becoming necessary—especially with the rise of electrification.

- (Ms. Sandy Nott, Vice President of Administration TMMK)

Career Progression

For team members seeking career advancement, TMMK offers structured development programs that support progression from team member to team leader, group leader, and eventually, to managerial roles. To enable this, TMMK has established a clear 'Work Life Plan' that outlines the requirements and pathways for internal promotion. Advancement is built on a

foundation of both technical and leadership capabilities—including the mastery of Toyota Production System (TPS) tools, process observation, and standardized work. These competencies are essential for leaders to effectively coach, guide, and lead their teams within the TMMK plant operation.

Building on this foundation, TMMK places strong emphasis on soft skills development for career advancement, particularly communication and interpersonal leadership. As individuals rise through the ranks, they are expected to model Toyota's 10 core values and demonstrate care for team members. This is especially important as many leaders are promoted based on technical performance and may require additional support to build people-centric leadership capabilities.

We recognize that many of our leaders are typically promoted based on their production skills and may sometimes need additional support in developing softer skills. So, we also emphasize the importance of showing care and concern for our team members. The goal is to ensure our team members can work safely, deliver good quality and productivity, and stay engaged. We invest a great deal of time in equipping our leaders with these skills to create the best possible conditions for our team members' careers at Toyota.

- (Ms. Sandy Nott, Vice President of Administration TMMK)

In addition, TMMK offers job rotation opportunities to expose employees to new learning and development pathways. These rotations are designed to broaden functional experience, accelerate career growth, and unlock untapped potential. At more senior levels, individuals may rotate across global Toyota plants—sharing best practices and bringing back fresh insights to their assigned locations. This global exchange strengthens leadership capabilities and reinforces a unified culture of continuous improvement across the Toyota network.

I love the opportunities that Toyota offers. Whether it be a promotion, a lateral move, or a move to a completely different area, I feel like there is always an opportunity to grow and evolve. And the support I have received over the years as I have grown in Toyota.

- (TMMK Team Member from Lexington, Kentucky)

One outstanding example of TMMK's career advancement and job rotation culture is Kerry Creech, the current TMMK President. Kerry began his journey at TMMK in 1990 as a Team Member in Powertrain Quality Control. Over the years, he progressed through various roles—including Team Leader, Assistant Manager, Manager, Assistant General Manager, General Manager, and Vice President—before being appointed Plant President in 2023 (see *Figure 26*).

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TMMK PRESIDENT CAREER PROGRESSION Team Member Powertrain QC General Manager OC Jan 1990 - Mar 1991 (TMMK) Jan 2013 - Jan 2016 (TMMK) Team Leader Powertrain QC General Manager Assembly Apr 1991 - Aug 1994 (TMMK) Jan 2016 - Aug 2017 (TMMK) Specialist Quality Engineering VP of Manufacturing Sep 1994 - Aug 1995 (TMMK) Aug 2017 - Jul 2023 (TMMK) Asst. Manager Quality Engineering Plant President Kerry Creech Aug 1996 - Sep 2001 (TMMK) Jul 2023 - Present (TMMK) President at TMMK Manager Quality Engineering Sep 2001 - Dec 2007 (TMMK) Asst. General Manager Dec 2007 - Dec 2013 (TMMK & TMMI)

Figure 26: TMMK President Career Progression

Source: LinkedIn⁶⁴

Throughout his career progression, Kerry also experienced multiple functional and geographic rotations. In 2008, he participated in a rotation program as Assistant General Manager at Toyota Motor Manufacturing Indiana, where he spent approximately 1.5 years overseeing quality control operations. Kerry later expanded his expertise, serving as General Manager of Quality Control for three years before transitioning to become General Manager of Assembly in 2016—demonstrating Toyota's commitment to developing well-rounded leadership through crossfunctional experience.

To sustain a strong culture of career advancement, TMMK has implemented a structured succession planning program within the plant. This program is designed to identify high-potential team members who can become future leaders. The scope of the planning spans the supervisor level, department level, and even company-wide level. Through this process, TMMK proactively maps out leadership pathways—identifying individuals who are ready for the next step but may require additional development in education, exposure, and experience.

Our succession planning is about preparing the next generation of leaders. Through this process, we identify what experiences or exposures individuals need to support their growth.

– (Mr. Kerry Creech, Plant President TMMK)

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All these career advancement initiatives reflect Toyota's deep commitment to internal development and long-term talent cultivation. By systematically strengthening leadership capabilities, TMMK has positioned itself as a generational plant—one that not only endures over time but also continues to attract talent across all age groups. This sustained investment in people ensures that TMMK remains resilient, adaptive, and a model of operational excellence.

Workforce Sustainability

TMMK demonstrates a strong commitment to workforce sustainability, through both its workforce composition and broader organizational initiatives. This is reflected in the demographic makeup of its employees, as illustrated in the age and ethnicity distributions (see *Figure 27*). A notable portion of the workforce falls within the 20–30 age group, accounting for 42 percent of employees, while older age groups are also well-represented—indicating an inclusive approach across generations. Ethnicity is evident, with Hispanic/Latino and Asian employees each making up 8 percent of the workforce, and African American employees comprising 7 percent. This demographic makeup reflects meaningful progress toward aligning more closely with the broader population of Kentucky, underscoring TMMK's commitment to attracting and embracing talent from a wide range of cultural and ethnic backgrounds.

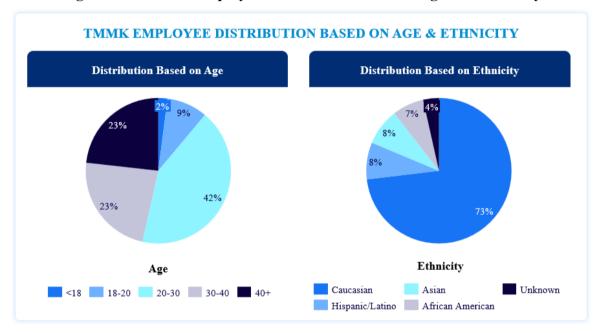


Figure 27: TMMK Employee Distribution Based on Age and Ethnicity

Source: Zippia⁶⁵

From a demographic perspective, the majority population in central Kentucky is Caucasian, followed by African American, Hispanic, and Asian communities. At TMMK, we aim to reflect the diversity demographics of our community, and we hope to see that continue in practice. We work with partners who conduct regular assessments, and part of their responsibility is to ensure that our workforce reflects the community. We strive to maintain a bias-free environment, and we believe we are getting pretty close to truly representing the demographics of our region.

– (Ms. Sandy Nott, Vice President of Administration TMMK)

In terms of educational background, TMMK further demonstrates its commitment to workforce sustainability. The company employs individuals with a broad range of academic qualifications—57 percent hold a bachelor's degree, 19 percent an associate degree, and 14 percent a high school diploma—reflecting an inclusive approach to recruiting talent from varied educational pathways (see *Figure 28*). TMMK also draws from a diverse pool of academic

institutions across Kentucky, with 33 percent of employees coming from the University of Kentucky and 15 percent from Eastern Kentucky University. This highlights TMMK's active role in supporting local educational institutions and building a workforce rooted in the surrounding community.

TMMK EMPLOYEE DISTRIBUTION BASED ON EDUCATION LEVEL AND SCHOOL

Distribution Based on Education Level

Distribution Based on School

41%
41%
57%
11%

Schools

Bachelors High School Diploma Diploma Others

Others

Others

Control

Distribution Based on School

University of Kentucky
Others

Others

Figure 28: TMMK Employee Distribution Based on Education Level and School

Source: Zippia⁶⁵

In general, for new hourly team member hiring, we typically try to attract candidates by advertising the job within Kentucky. For engineering roles, the reach is more regional, but we still focus on local universities such as the University of Kentucky.

- (Ms. Sandy Nott, Vice President of Administration TMMK)

To ensure the continuity of its workforce sustainability efforts, TMMK has established approximately 13 Business Partnering Groups (BPGs) that provide team members with a supportive network of peers who share similar values, interests, or backgrounds. These groups foster a sense of belonging and community through various initiatives, including volunteer activities that engage with local communities. In doing so, the BPGs not only create a more inclusive work environment but also strengthen TMMK's connection to the broader society, reinforcing the company's commitment to social impact and cultural awareness.

One of the most notable Business Partnering Groups (BPGs) at Toyota is the African American Collaborative (AAC). As one of the company's earliest BPGs, the AAC laid the groundwork for the expansion of employee-driven networks across Toyota. Established in 2002 in Kentucky as only the second BPG, its mission has been to strengthen engagement, inclusion, and connection—both within the workplace and in the broader community. 66

The AAC's vision is to ensure African American team members are represented and recognized at all levels of the organization, serving as key contributors to Toyota's continued success (see *Figure 29*). At TMMK, AAC has been a cornerstone initiative in recruiting, developing, and

retaining African American talent. Through community outreach and internal advocacy, AAC actively bridges the gap between Black communities and the corporate workplace, fostering both personal and professional growth.⁶⁷

AFRICAN AMERICAN COLLABORATIVE (AAC) OVERVIEW Goals Vision Ensure continued alignment to the AAC's mission and vision. Enhance development activities for AAC leaders and team members who can benefit from the activities. Engage local communities through outreach activities that build relationships and affinity with Toyota's brand. Encourage growth in participation in The AAC's vision is to ensure that African American team AAC membership events and relevant members are represented and recognized at all levels of the company-wide events through effective company and serve as key contributors to the success of Toyota. planning and communication.

Figure 29: African American Collaborative (AAC) Overview

Source: Toyota Motor North America Website⁶⁷

To deliver on its vision, the AAC has led several impactful initiatives driven by the dedication of its members. A key focus has been community engagement, with programs such as 'Adopt a Family' and 'Hope' providing direct support to individuals and families in need. In addition, the AAC launched the Tutormate program, in which members dedicate 30 minutes each week to tutoring first-grade students. Since its inception in 2018, the program has supported over 170 students, yielding measurable improvements—some advancing by as many as four reading levels. These initiatives reflect AAC's commitment to creating meaningful change both within Toyota and in the surrounding communities.

Another one of TMMK's notable Business Partnering Groups (BPGs) is WIIT — Women Influencing and Impacting Toyota.⁶⁸ WIIT's mission is to foster a workplace culture that attracts, retains, and advances women by promoting engagement, education, recognition, and networking.⁶⁹ The signature initiative of WIIT in Georgetown is the annual 'Spring Spectacular', an event that features a different theme and purpose each year, aimed at celebrating women's contributions and furthering the group's mission.⁶⁸

In 2023, the WIIT Georgetown chapter organized a STEM Carnival theme in partnership with Elkhorn Crossing School and its SWENext (Society of Women Engineers) club. The event featured a variety of hands-on STEM activities, designed to introduce female students to the fields of science, technology, engineering, and mathematics—igniting passion and inspiring future aspirations through 8 different booths (see *Figure 30*). From mechanical and industrial engineering to biomedical engineering and environmental engineering, the booths provided a diverse and immersive experience, sparking curiosity and excitement among the participants.

Figure 30: STEM Carnival by WIIT (Women Influencing and Impacting Toyota)

STEM CARNIVAL BY WIIT (WOMEN INFLUENCING AND IMPACTING TOYOTA) Overview **Available Booths** Build Your Own Circuit: Learn the fundamentals of electronics and electrical engineering concepts. Shoot Your Shot: Learn about mechanical engineering principles by building a catapult. Environmental Sustainability: Learn how to preserve the earth's natural resources for future generations. It's in Your DNA: Learn about biomedical engineering principles by extracting DNA out of a strawberry. Powertrain PE Dojo: IAI Robocylinder & Christmas light STEM Carnival is an educational event held in partnership between programming. WIIT, Elkhorn Crossing School, and the school's SWENext club (Society of Women Engineers). As part of WIIT's annual event, it Presentations: Learn how to use colors and fonts in design. features a variety of STEM activities for women students.

Source: Toyota Effect Website⁶⁸

The event welcomed 50 enthusiastic female students from Elkhorn Crossing School, eager to explore STEM careers. These participants were supported by 20 dedicated Toyota team members, including WIIT representatives and volunteers from TMMK Quality and Powertrain, TMNA Environmental and Sustainability, Safety, Assembly, Vehicle Project Engineering, Body, and other departments. This interaction fostered meaningful connections, providing students with valuable insights into STEM professions while reinforcing Toyota's commitment to community engagement and talent development.

REFERENCES AND SOURCES

APEC Energy Working Group. "APEC Capacity Building Workshop on APEC's Goals of Doubling the Renewable Energy Share in the Energy Mix and Reducing Energy Intensity: Workshop Summary." *Asia-Pacific Economic Cooperation*. Accessed June 16, 2025. https://www.apec.org/docs/default-source/publications/2024/2/224_ewg_workshop-on-apec-s-goals-of-doubling-the-renewable-energy-share.pdf?sfvrsn=6bef811a_2

- Toyota Motor North America. "Toyota's Largest Plant in the World Finds a Home in Kentucky." *Toyota USA Newsroom*. Accessed May 20, 2025. https://pressroom.toyota.com/toyotas-largest-plant-in-the-world-finds-a-home-in-kentucky/.
- Toyota Motor North America. "Toyota Motor Manufacturing Kentucky." *Toyota USA Newsroom*. Accessed May 20, 2025. https://pressroom.toyota.com/facility/toyota-motor-manufacturing-kentucky/.
- Kentucky Cabinet for Economic Development. "Toyota Unveils \$80 Million Production Engineering Headquarters in Georgetown." Accessed May 20, 2025. https://ced.ky.gov/Newsroom/NewsPage/10302017 Toyota.
- Lexington Herald-Leader. "Moving Forward in Georgetown: A Toyota Timeline." Kentucky.com. Accessed May 20, 2025. https://www.kentucky.com/news/business/article44093205.html.
- Toyota Motor North America, "Toyota to Build Lexus ES 350 at Its Georgetown, Kentucky Plant," *Toyota USA Newsroom*, April 19, 2013, accessed May 20, 2025, https://pressroom.toyota.com/toyota-build-lexus-es350-georgetown-ky-plant/.
- Kessler, A. M. "With a Hush, an American Lexus Plant Goes to Work." *The New York Times*. November 12, 2015. Accessed May 20, 2025. https://www.nytimes.com/2015/11/13/business/with-a-hush-an-american-lexus-plant-goes-to-work.html.
- Toyota Motor Corporation. "Toyota Announces Record \$1.33 Billion Investment in Kentucky Plant." *Toyota Global*. April 10, 2017. Accessed May 20, 2025. https://global.toyota/en/detail/16396875.
- Aristeo Construction. "Toyota Motor Manufacturing Kentucky Reborn Paint Shop." Accessed May 20, 2025. https://www.aristeo.com/project/toyota-motor-manufacturing-kentucky-reborn/.
- Toyota Motor North America. "13 Million and Going Strong." *Toyota USA Newsroom*. March 16, 2021. Accessed May 20, 2025. https://pressroom.toyota.com/13-million-and-going-strong/.
- Kentucky Cabinet for Economic Development. "Toyota to Add Hybrid Version Production of RAV4 and Lexus ES in Georgetown." March 14, 2019. Accessed May 20, 2025. https://ced.ky.gov/Newsroom/NewsPage/03142019 Toyota.
- Toyota Motor North America. "Toyota's First U.S. Vehicle Plant Shifts Transformation into High Gear." *Toyota USA Newsroom.* October 29, 2021. Accessed May 20, 2025. https://pressroom.toyota.com/toyotas-first-u-s-vehicle-plant-shifts-transformation-into-high-gear/.
- Toyota Motor North America. "A Fresh Coat: Toyota Kentucky Invests \$922 Million to Build Advanced Paint Facility." *Toyota USA Newsroom*. December 12, 2024. Accessed May 20, 2025. https://pressroom.toyota.com/a-fresh-coat-toyota-kentucky-invests-922-million-to-build-advanced-paint-facility/.
- Toyota Motor North America. "Toyota Announces North American Production for 2011." *Toyota USA Newsroom.* January 20, 2012. Accessed June 16, 2025. https://pressroom.toyota.com/toyota-announces-north-american-production-2011.
- Toyota Motor North America. "Updated Toyota Statement regarding earthquake and tsunami in Japan." *Toyota USA Newsroom.* March 22, 2011. Accessed June 16, 2025. https://pressroom.toyota.com/updated-toyota-statement-regarding-earthquake-and-tsunami-in-japan/.

- Toyota Motor North America. "Toyota adjusts May production in North America." *Toyota USA Newsroom.* April 19, 2011. Accessed June 16, 2025. https://pressroom.toyota.com/toyota-adjusts-may-production-north-america/.
- Fracassa, H. "Toyota ramps up production big time for 2012 cars and trucks." *Torque News*. August 4, 2011. Accessed June 16, 2025. https://www.torquenews.com/1063/toyota-ramps-production-big-time-2012-cars-and-trucks/.
- Toyota Motor North America. "2012 Toyota Camry Global Reveal Bob Carter." *Toyota USA Newsroom.* August 23, 2011. Accessed June 16, 2025. https://pressroom.toyota.com/2012-toyota-camry-global-reveal-remarks/.
- Davis, R. "How Toyota Steered Clear of the Chip Shortage Mess." *Bloomberg*. April 8, 2021. Accessed June 16, 2025. https://www.bloomberg.com/news/articles/2021-04-07/how-toyota-s-supply-chain-helped-it-weather-the-chip-shortage/.
- Shirouzu, N. "How Toyota thrives when the chips are down." *Reuters*. March 9, 2021. Accessed June 16, 2025. https://www.reuters.com/article/business/how-toyota-thrives-when-the-chips-are-down-idUSKBN2B117X/.
- Lofton, S. "How the microchip shortage is affecting Kentucky's auto industry." WKYT. January 29, 2022. Accessed June 16, 2025. https://www.wkyt.com/2022/01/28/how-microchip-shortage-is-affecting-kentuckys-auto-industry/.
- Shepardson, D. "After 90 years on top, GM is no longer the No. 1 automaker in America." *Reuters*. January 4, 2022. Accessed June 16, 2025. https://www.reuters.com/business/autos-transportation/after-90-years-top-gm-is-no-longer-no-1-automaker-america-2022-01-04/.
- Toyota Motor Europe. "The Toyota Way." Accessed May 20, 2025. https://www.toyota-europe.com/about-us/toyota-vision-and-philosophy/the-toyota-way.
- APEC. "Fostering an Enabling Policy and Regulatory Environment in APEC for Data-Utilizing Businesses." *Asia-Pacific Economic Cooperation*. Accessed June 16, 2025. https://www.apec.org/docs/default-source/publications/2019/7/fostering-an-enabling-policy-and-regulatory-environment-in-apec-for-data-utilizing-businesses/toc/chapter-9.pdf?sfvrsn=9cc8d796_1.
- Toyota Motor North America. "Toyota Bringing Battery Electric Vehicle Production to Kentucky."
 Toyota USA Newsroom. February 6, 2024. Accessed May 20, 2025. https://pressroom.toyota.com/toyota-bringing-battery-electric-vehicle-production-to-kentucky/.
- Toyota Motor North America. "Toyota Kentucky Creates the Triple Crown for Workforce Readiness." Toyota USA Newsroom. July 29, 2024. Accessed May 20, 2025. https://pressroom.toyota.com/toyota-kentucky-creates-the-triple-crown-for-workforce-readiness/.
- J.D. Power. "2023 Toyota Awards." 2023. Accessed May 20, 2025. https://www.jdpower.com/Cars/Ratings/Toyota/2023.
- J.D. Power. "2024 Toyota Awards." 2024. Accessed May 20, 2025. https://www.jdpower.com/Cars/Ratings/Toyota/2024.
- Lane Report. "Industry Magazine Gives Impact Award for Toyota's \$1.3B KY Investment." *Lane Report*. May 5, 2024. Accessed May 20, 2025. https://www.lanereport.com/173441/2024/05/industry-magazine-gives-impact-award-for-toyotas-1-3b-ky-investment/.
- Toyota Kentucky Biodiversity Trail. "Earth Day." April 24, 2025. Accessed May 20, 2025. https://toyotakybiotrail.com/earth-day/.
- Kentucky Department for Environmental Protection. *TMMK RO Water 2023 KY EXCEL Member Spotlight*. 2023. Accessed May 20, 2025. https://eec.ky.gov/Environmental-Protection/Compliance-Assistance/DCA%20Resource%20Document%20Library/TMMKSpotlight.pdf.
- Toyota (GB) PLC. "Toyota Taps Landfill Waste for Green Power." April 2, 2014. Accessed May 20, 2025. https://media.toyota.co.uk/toyota-taps-landfill-waste-green-power/.

- Toyota Motor North America. "Landfill Gas to Build Cars and a Greener Community." *Toyota USA Newsroom*, March 24, 2014. Accessed May 20, 2025. https://pressroom.toyota.com/tmmk-landfill-gas-builds-cars-greener-community/.
- Toyota Motor North America. "Goals & Targets." Accessed May 20, 2025. https://www.toyota.com/usa/environmentalsustainability/goals-and-targets.
- Toyota Motor North America. "Toyota's Largest Facility Nailed It in 2021." *Toyota USA Newsroom*, January 27, 2022. Accessed May 20, 2025. https://pressroom.toyota.com/toyotas-largest-facility-nailed-it-in-2021/.
- Clark, R. "Toyota Motor Manufacturing Kentucky Donates \$125K to Hazard's New Appalachian Center for Assistive Technology." *University of Kentucky College of Health Sciences*, March 10, 2023. Accessed May 20, 2025. https://chs.uky.edu/node/413.
- Toyota Motor North America. "Toyota's Response to COVID-19: Monetary and In-Kind Donations." *Toyota USA Newsroom*, March 25, 2020. Accessed May 20, 2025. https://pressroom.toyota.com/toyota-response-to-covid-19-monetary-and-in-kind-donations/.
- APEC Investment Experts' Group. "APEC Guidelines on Inclusive and Responsible Business & Investment (IRBI)." *Asia-Pacific Economic Cooperation*. Accessed June 16, 2025. https://www.apec.org/docs/default-source/publications/2024/10/224_ieg_apec-guidelines-on-inclusive-and-responsible-business-and-investment.pdf?sfvrsn=d4a03f30_1.
- Toyota Motor North America. "Special Olympics: Fueling Inclusion through the Power of Play." *The Toyota Effect*. Accessed May 20, 2025. https://www.toyotaeffect.com/stories-of-impact/special-olympics/.
- Toyota Motor North America. "An Honor Flight to Remember." *The Toyota Effect*, April 2023. Accessed May 20, 2025. https://www.toyotaeffect.com/stories-of-impact/an-honor-flight-to-remember/.
- Wymer, G. "Fourth Annual Bud Gates Bike Build Held in Richmond." *WKYT*, June 2, 2019. Accessed May 20, 2025. https://www.wkyt.com/content/news/Fourth-annual-Bud-Gates-Bike-Build-held-in-Richmond-510711011.html.
- Greenfield, A. "Toyota Helps God's Pantry with Food Boxes." *WTVQ*, September 22, 2021. Accessed May 20, 2025. https://www.wtvq.com/toyota-helps-gods-pantry-with-food-boxes/.
- Rogers, S. "Toyota Modifies Car to Help Hospital Patients 'Learn' Techniques." *WTVQ*, July 7, 2021. Accessed May 20, 2025. https://www.wtvq.com/toyota-modifies-car-to-help-hospital-patients-learn-techniques/.
- Toyota Motor North America. "Toyota Kentucky and Go Baby Go Help Children with Disabilities Feel Free to Move." Toyota USA Newsroom, April 26, 2021. Accessed May 20, 2025. https://pressroom.toyota.com/toyota-kentucky-and-go-baby-go-help-children-with-disabilities-feel-free-to-move/.
- Toyota Bluegrass Miracle League. "Home." Accessed May 20, 2025. https://bgml.org/.
- Kentucky Cabinet for Economic Development. "Gov. Beshear Congratulates Toyota Motor Manufacturing, Kentucky, on 2024 CiCi Award from Trade & Industry Development Magazine." May 2, 2024. Accessed May 20, 2025. https://ced.ky.gov/Newsroom/NewsPage/20240502_ToyotaCiCi.
- Toyota Motor North America. "Toyota to Build Lexus ES 350 at Its Georgetown, Kentucky Plant." April 19, 2013. Accessed May 20, 2025. https://pressroom.toyota.com/toyota-build-lexus-es350-georgetown-ky-plant/.
- Toyota Motor North America. "Duck, GOOSE! Toyota Tagged to Receive Keystone Leadership in Environment Award." June 8, 2016. Accessed May 20, 2025. https://pressroom.toyota.com/toyota-keystone-leadership-evironment-award/.
- U.S. Environmental Protection Agency. "EPA Announces Toyota Motor Manufacturing Achieved 2015 ENERGY STAR Certification." February 24, 2016. Accessed May 20, 2025. https://www.epa.gov/archive/epa/newsreleases/epa-announces-toyota-motor-manufacturing-achieved-2015-energy-star-certification.html.

- Toyota Motor North America. "TMMK Receives Volunteer Spirit Award." May 12, 2009. Accessed May 20, 2025. https://pressroom.toyota.com/tmmk-receives-volunteer-spirit-award/.
- University of Louisville J.B. Speed School of Engineering, "2023 Alumni Awards," 2023, accessed May 20, 2025, https://engineering.louisville.edu/homecoming/2023-alumni-awards/.
- Scogin, M. "TMMK Vehicles among 1 Million Recalled by Toyota." *The News-Graphic*, August 1, 2023. https://www.news-graphic.com/news/tmmk-vehicles-among-1-million-recalled-by-toyota/article a50b5cf2-a051-11ee-8eee-d70f34746af2.html.
- Toyota Motor North America. "Toyota Produces First Car at New Kentucky Plant [1988]." Toyota USA Newsroom, May 29, 2014. https://pressroom.toyota.com/toyota-car-kentucky-plant/.
- Toyota Motor North America. "Toyota Announces Record \$1.33 Billion Investment in Kentucky Plant." Toyota USA Newsroom, April 10, 2017. https://pressroom.toyota.com/toyota-announces-record-investment-kentucky-plant/.
- Jacoby, T. "Federation for Advanced Manufacturing Education Industry-Driven Apprenticeship Case Study." *Opportunity America*. Accessed June 16, 2025. https://opportunityamericaonline.org/wp-content/uploads/2019/02/FAME-final-final.pdf
- Haskins, R., & Jacoby, T. "Kentucky Fame Fulfilling the Promise of Apprenticeship." *Opportunity America*. Accessed June 16, 2025. https://opportunityamericaonline.org/wp-content/uploads/2020/10/KY-FAME-final-final.pdf.
- Toyota Motor North America. "Toyota Transitions National Apprenticeship Program to The Manufacturing Institute." *Toyota USA Newsroom*, September 10, 2019. https://pressroom.toyota.com/toyota-transitions-national-apprenticeship-program-to-the-manufacturing-institute/.
- Federation for Advanced Manufacturing Education (FAME) USA. "About FAME USA." Accessed May 20, 2025. https://fame-usa.com/fame-program-for-manufacturers-copy-2/.
- Federation for Advanced Manufacturing Education (FAME) USA. "Students." Accessed May 20, 2025. https://fame-usa.com/fame-program-for-students/.
- Springfield-Washington County Chamber of Commerce. "Lexington AMC Info." Accessed May 20, 2025. https://www.springfieldchamber.com/assets/pdf/Lexington AMC Info/.
- Toyota Motor North America. "Toyota's Driving Possibilities Program Invests in Future STEM Leaders." *Toyota USA Newsroom*, November 14, 2023. https://pressroom.toyota.com/toyotas-driving-possibilities-program-invests-in-future-stem-leaders/.
- Toyota Motor North America, "Toyota's Driving Possibilities Program Invests in Future STEM Leaders," *Toyota USA Newsroom*, November 14, 2023, https://pressroom.toyota.com/toyotas-driving-possibilities-program-invests-in-future-stem-leaders/.
- Fayette Education Foundation. "Driving Possibilities." Accessed May 20, 2025. https://fayettefoundation.org/driving-possibilities/.
- LinkedIn. "Kerry Creech Experience." Accessed May 20, 2025. https://www.linkedin.com/in/kerry-creech-a53929125/details/experience/.
- ⁶⁵ Zippia. "Toyota Motor Manufacturing Kentucky Demographics and Statistics." Accessed May 20, 2025. https://www.zippia.com/toyota-motor-manufacturing-kentucky-careers-42073/demographics/.
- Toyota Motor North America. "Inclusivity Fuels Toyota's African American Collaborative." *Toyota USA Newsroom*, March 1, 2021. https://pressroom.toyota.com/inclusivity-fuels-toyotas-african-american-collaborative/.
- Toyota Motor North America. "African American Collaborative Celebrates 20 Years at Toyota." *Toyota USA Newsroom*, February 28, 2022. https://pressroom.toyota.com/african-american-collaborative-celebrates-20-years-at-toyota/.
- Toyota Effect. "WIIT Georgetown Chapter Inspires Next Generation of Women in STEM." Accessed May 20, 2025. https://toyotaeffect.com/stories-of-impact/wiit-stem-carnival/.
- Toyota Motor North America. "How Toyota Cultivates an Ecosystem That Supports Its Female Employees." *Toyota USA Newsroom*, March 1, 2021. https://pressroom.toyota.com/how-toyota-cultivates-an-ecosystem-that-supports-its-female-employees/.