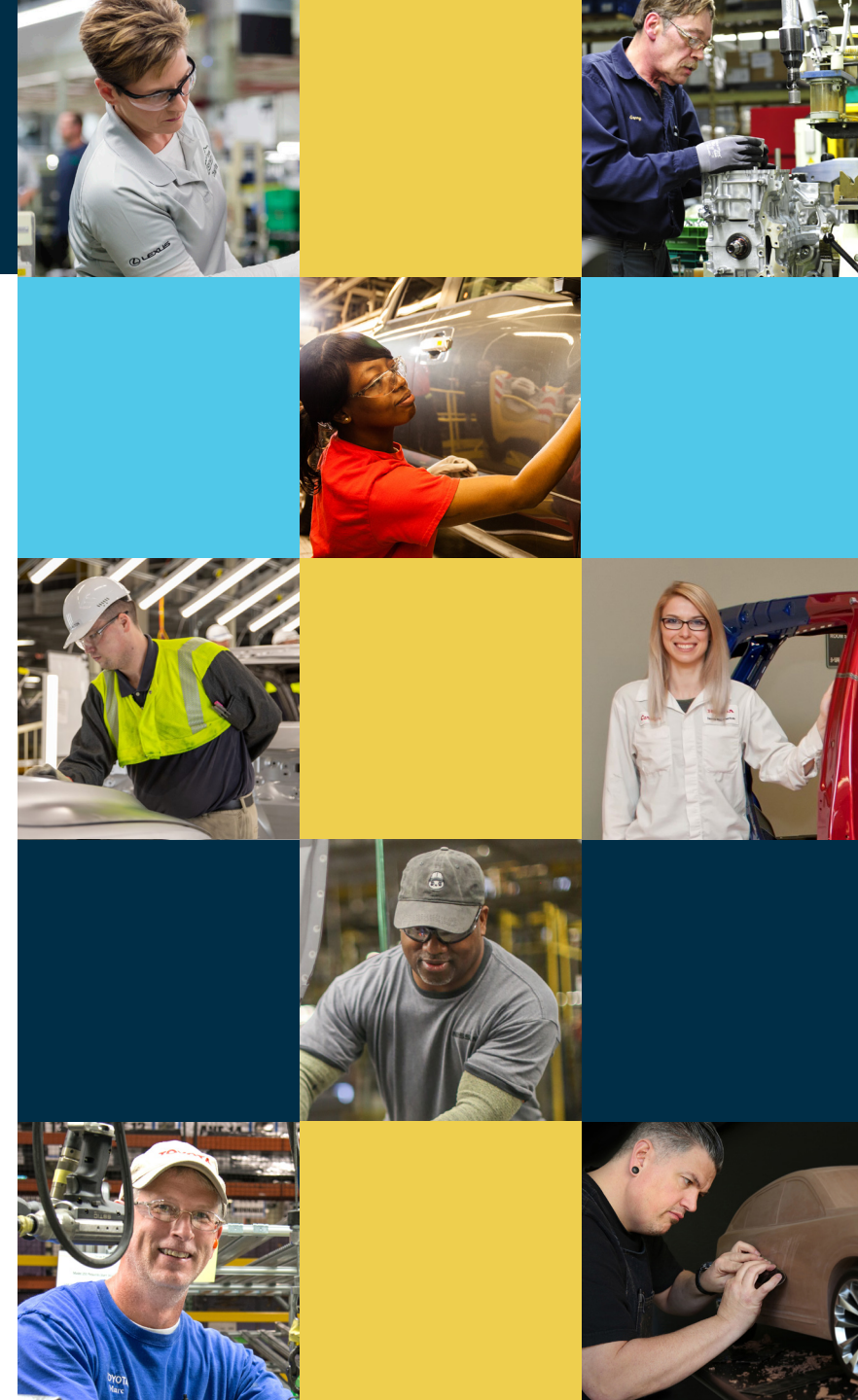


JAMA IN AMERICA

**THE
WAY
WE
WORK**

2024 IMPACT REPORT



Welcome to the Japan Automobile Manufacturers Association (JAMA) USA 2024 Impact Report!

Over the next several pages, we will introduce and explain how Japanese-brand automakers “work.” By the numbers, it is clear that JAMA members continue to do the important work of providing steady investment over 40 plus years in automotive manufacturing and research and development (R&D) and design in the United States. As of 2023, Japanese-brand automakers increased their cumulative manufacturing investment to \$61.6 billion and direct employment rose to over 109,000. These numbers illustrate a deep and sustained prioritization and commitment to American workers, consumers and the broader society.

In our report, we also showcase what good-quality foreign direct investment looks like across multiple states, such as Alabama, Indiana, Kentucky, Ohio and Tennessee, to further illustrate the impactful work of our members’ U.S. organizations. These are just some of the 27 states where Japanese-brand automakers’ manufacturing and other investments have flourished, and their legacies are being written. Historically, whenever these automakers have entered into communities to provide significant investments, it has involved thoughtful effort to reach out to and partner with community stakeholders. In each instance, the emphasis has been placed on respecting local voices and preserving and enriching the areas which have welcomed these automakers. Heart-warming stories abound thanks to Japanese-brand automakers’ consistent financial support and hours of dedication that help strengthen communities. These automakers are active members in the communities surrounding their U.S. facilities with a focus on building roots for the long-term.

Because of the way Japanese-brand automakers work, they have naturally become a part of the American landscape.

While JAMA members’ operations in the U.S. include substantial investments in training its own workforce, the work actually goes beyond the factory floor and toward helping individuals throughout the workforce pipeline identify and realize their potential. These efforts start as early as kindergarten and run through high school, post-secondary education, including technical and community colleges, and four-year universities. Ultimately, this work to build careers strengthens U.S. competitiveness and makes a positive impact on U.S. society through inspiration, mentorship and hands-on training.

Importantly, the work that Japanese-brand automakers do in their R&D and design, and or other corporate facilities, drives excellence and innovation in areas such as sustainability, safety, mobility and even reimagining the customer experience. Much of the work these automakers do involve long-term vision and a sustained commitment, which is exactly the approach that they take as the transition to electrified vehicles advances.

Although this Impact Report only scratches the surface, it still tells a compelling story of the way JAMA members work in the U.S. and puts our members’ good-quality U.S. investments on full display with all the context and details characteristic of a good story.



Anita Rajan

General Director, JAMA USA

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\$61.6
BILLION

in Cumulative U.S.
Manufacturing Investment



2.2+
MILLION
U.S. Jobs Supported*

900,000*
SPIN-OFF JOBS

910,000*
INTERMEDIATE JOBS

357,098
NEW VEHICLE DEALER JOBS


109,699
DIRECT JOBS

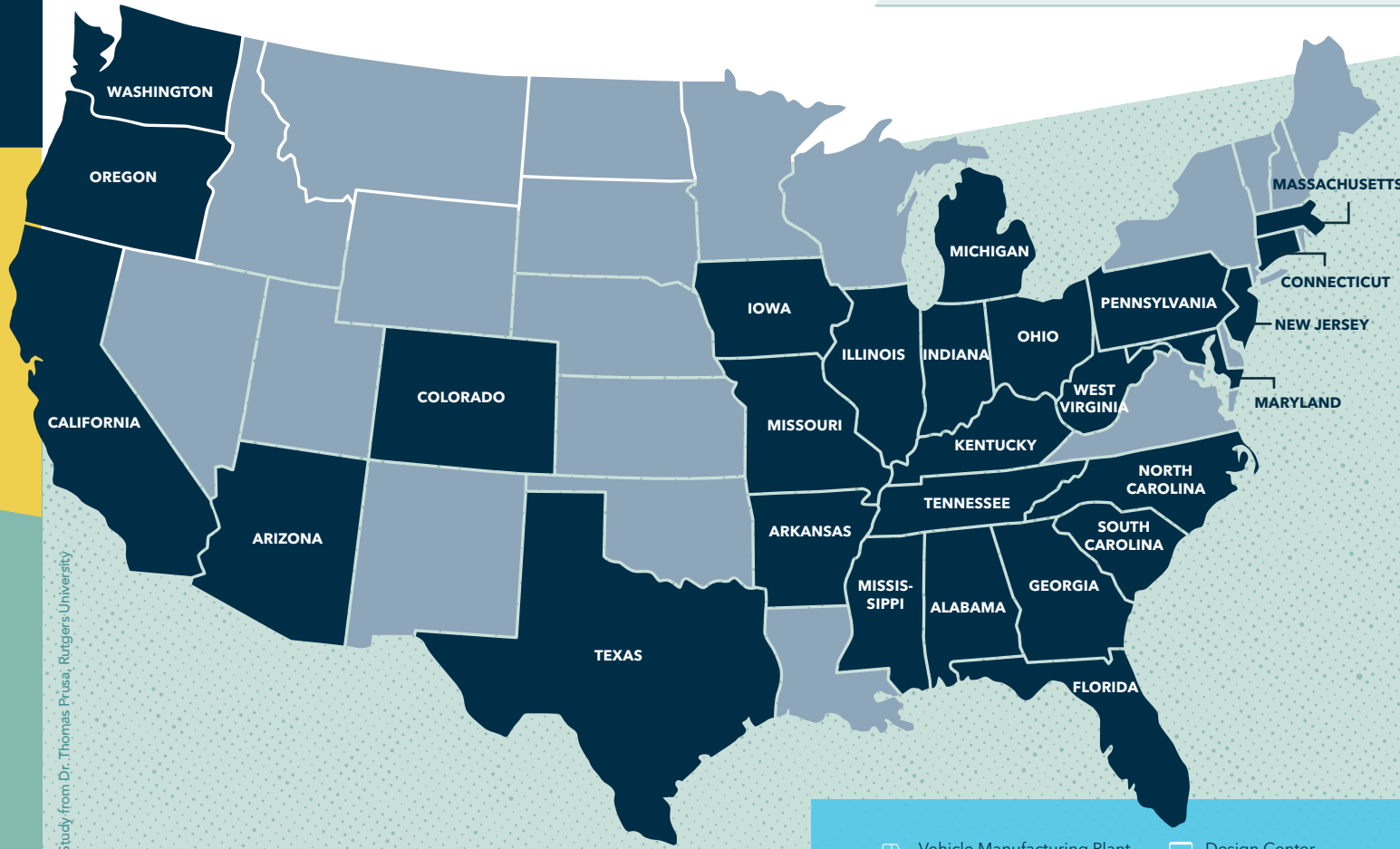
*Source: 2023 Jobs Study from Dr. Thomas Prusa, Rutgers University

Investment IN 27 STATES

MANUFACTURING PLANTS: **24**   






R&D AND DESIGN FACILITIES: **45**  **R+D**



DISTRIBUTION CENTERS: **69** 
























-  Vehicle Manufacturing Plant
-  Parts Manufacturing Plant
-  Engine Manufacturing Plant
-  R&D Center
-  Design Center
-  Distribution Center*
-  Headquarters

*Number of distribution centers indicated inside circle

ALABAMA ²
Mazda 
Mazda-Toyota 
Toyota 
Honda  

ARIZONA ¹
Toyota 
Nissan 

ARKANSAS
Hino 

CALIFORNIA ¹⁷
Honda     
Isuzu  
Mazda  
Nissan  
Subaru  
Toyota        





COLORADO ¹
Honda 

CONNECTICUT ¹

FLORIDA ²

GEORGIA ⁴
Honda 

ILLINOIS ³







INDIANA ²
Subaru  
Honda 
Toyota 

IOWA ¹

KENTUCKY ²
Toyota  

MARYLAND ³
Toyota 

MASSACHUSETTS ¹
Toyota 

MICHIGAN
Hino  
Honda    
Isuzu 
Mazda 
Mitsubishi Motors 
Nissan 
Subaru 
Toyota      

MISSISSIPPI ²
Nissan 
Toyota 

MISSOURI ¹
Toyota 

NEW JERSEY ⁵
Subaru  






NORTH CAROLINA
Toyota 




OHIO ⁴
Honda        

OREGON ⁴

PENNSYLVANIA ²

SOUTH CAROLINA ¹

TENNESSEE ⁴
Mitsubishi Motors 
Nissan   
Toyota 

TEXAS ⁵
Toyota    

WASHINGTON ¹

WEST VIRGINIA
Hino 
Toyota   

All data in this release is as of December 31, 2023.



3.2+
MILLION

vehicles produced
in 2023



3.9
MILLION

engines built in 2023



99.4
MILLION

vehicles produced
since 1982

Nearly

1/3



of all vehicles produced
in the U.S. are made by
Japanese-brand automakers



\$4.4 BILLION

in cumulative R&D capital
investments since 1977

52



Models designed or
developed in the U.S.



\$1.47 TRILLION

in U.S. parts purchased
since 1986



166,622

Vehicles exported
from Japanese-brand auto
plants in the U.S. in 2023

JAMA MEMBERS' U.S. *Economic Impact*

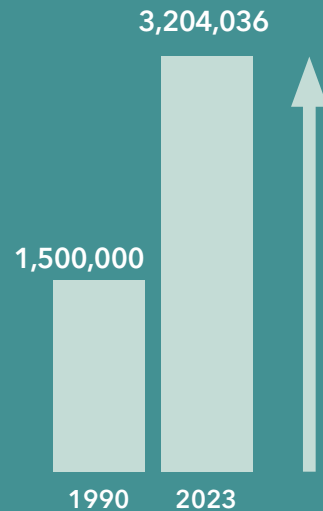
Cumulative Manufacturing
Investment (USD)

+890%



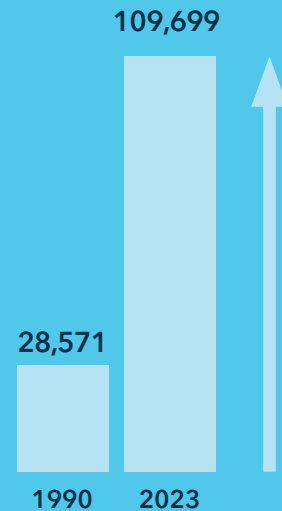
Vehicle Production
(Units)

+114%



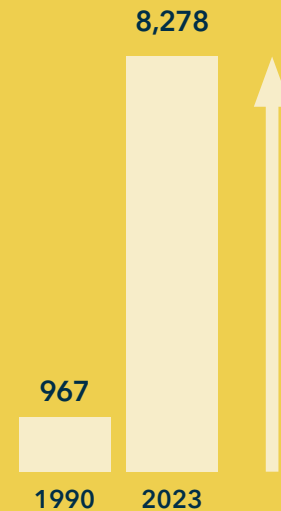
Direct
Employment

+284%



R&D/Design
Employment

+756%



Decades OF ADVANCING U.S. MANUFACTURING

1982

Honda Vehicle Plant in **Marysville, Ohio**

1983

Nissan Vehicle Plant in **Smyrna, Tennessee**

1985

Honda Engine Plant in **Anna, Ohio**

1989

Honda Vehicle Plant in **East Liberty, Ohio**

Toyota Engine Plant in **Georgetown, Kentucky**

Subaru Vehicle Plant in **Lafayette, Indiana**

1988

Toyota Vehicle Plant in **Georgetown, Kentucky**

1993

Toyota Parts Plant, **Troy, Missouri**

1997

Nissan Engine Plant in **Decherd, Tennessee**

1996

Honda Transmission Plant in **Russells Point, Ohio**

1998

Toyota Engine Plant in **Buffalo, West Virginia**

1999

Toyota Vehicle Plant in **Princeton, Indiana**

1980

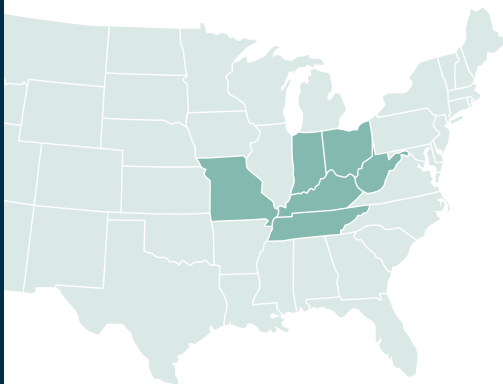
1990

2000

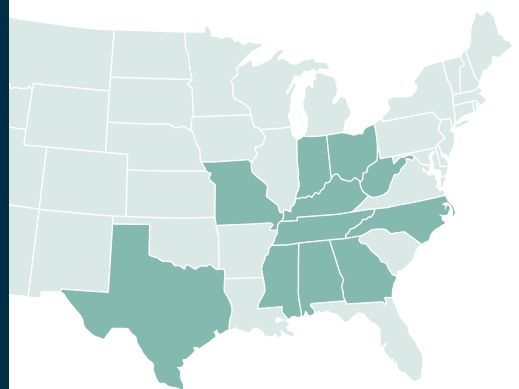
2010

2020

2025



1980
1990
2000
2010
2020
2025



Honda Vehicle Plant in **Greensburg, Indiana**

2008

Toyota Vehicle Plant in **Blue Springs, Mississippi**

2011

Toyota Lexus Production Launch in **Georgetown, Kentucky**

2015

Hino Vehicle Plant, **Williamstown, West Virginia**

2007

Toyota Vehicle Plant in **San Antonio, Texas**
Honda Transmission Plant **Tallapoosa, Georgia**

2006

Toyota Parts Plant in **Jackson, Tennessee**

2005

Hino Vehicle Plant Relocates to **Mineral Wells, West Virginia**

2019

Honda Vehicle and Engine Plant in **Lincoln, Alabama**

2001

Toyota Engine Plant in **Huntsville, Alabama**

Nissan Vehicle Plant in **Canton, Mississippi**

2003

Mazda-Toyota Vehicle Plant in **Huntsville, Alabama**

2021

Toyota Battery Plant in **Liberty, North Carolina**

Honda and LG Energy Solution Joint Venture Battery Plant in **Jeffersonville, Ohio**

2025

THE JAMA LEGACY

Marysville, Ohio



Est. 1982

Honda's flagship operations in Ohio encompasses nearly every facet of its automotive manufacturing business, and has expanded its manufacturing facilities across the United States. This incredible story started over 40 years ago when the first Honda Accord rolled off the assembly line in 1982.

What began as an automotive plant in a rural Ohio town of only 7,000 people grew significantly to over 27,000 people and the initial investment from Honda served as a catalyst for additional investments as suppliers moved in to help support the new facility. This created even more opportunities for workers in the community and helped establish Honda as a major economic driver in Southwest Ohio.

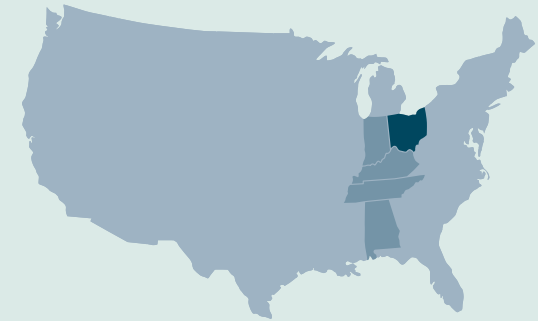
Honda itself has steadily grown its own local production capabilities and now employs more than 30,000 associates at 18 plants all across the United States producing products from cars, to ATVs, to light jets. In 2021, more than 95% of all U.S.-sold Honda and Acura automobiles were made in North America, using domestic and globally-sourced parts. Cumulatively, Honda has invested nearly \$24.6 billion in its North

American manufacturing operations, including more than \$3.6 billion over the past five years alone.

And while Honda's economic benefits to the region and the country cannot be overstated, the direct enrichment of the Marysville area can be viewed through another meaningful lens. Through over four decades of cross-cultural exchange, the Japan-America Society of Central Ohio (JASCO) has stood out as one of the most actively engaged chapters of the National Association of Japan-America Societies (NAJAS). In part due to Honda's strong connections with JASCO, Marysville's ties to Japanese culture have flourished through the establishment of language-learning schools and the development of many opportunities for people in the area to form genuine friendships.

Honda has also made significant efforts to support local students, recognizing their potential to become the future engineers and leaders that can help uplift the region and the country as a whole as they prepare to design and build not just the vehicles of tomorrow but the vehicles of 50 years from now. Honda's support in this area has taken many forms over the years through its partnerships with the Center of Science and Industry (COSI) to support STEM education and collaboration with students at Ohio State University on a wide variety of automotive-related research.

Finally, as we look to the present day and the near future, Honda is investing in the long-term future of the region through its new, multibillion dollar investment to make Ohio their "EV Hub." Through this profound effort, Honda is actively transforming their Marysville facility to be ready for the next four decades.



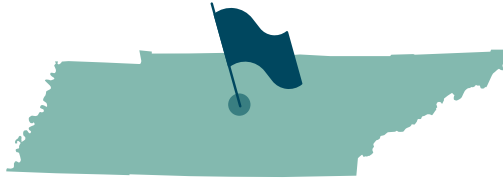
1982



2020

THE JAMA LEGACY

Smyrna, Tennessee



Est. 1983

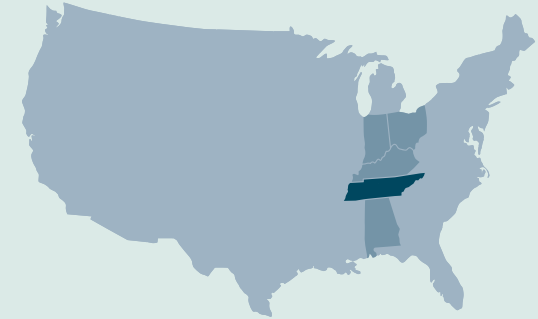
In 1983, when Nissan opened the Smyrna, Tennessee facility, the New York Times described Smyrna as a “collection of houses and one-story businesses thrown up in the sun along the Louisville and Nashville railroad tracks.” At the time, Nissan’s investment in the community was the single largest investment by a non-U.S. headquartered automaker in the U.S. and an extremely consequential one for Nissan who has called the state home for over 40 years.

Early media coverage of the facility was filled with unwarranted concern over Japanese business practices and office culture typical in Japan, such as the participation in traditional morning exercises, and whether it would be mandatory for American workers to participate in such activities. But those reports were also filled with a lot of hope for jobs and new opportunities. And in this regard Nissan has certainly delivered.

Since the first white pickup rolled off the assembly line, Nissan has expanded its U.S. footprint to include a powertrain plant in Decherd, Tennessee in 1997 and a vehicle assembly plant in Canton, Mississippi in 2003. Collectively, these facilities have proudly built nearly 20 million vehicles and 13 million engines in the U.S. for customers around the globe.

Nissan’s impact has also extended beyond the factory floor to greater Tennessee. Over the past 40 years, they have consistently demonstrated the priority placed on community engagement. This includes 43,000 volunteer hours by their employees, 38 homes constructed in partnership with Habitat for Humanity, nearly \$26 million in United Way donation, nearly \$2 million in education scholarships, and 36,000 pints of blood donated to the American Red Cross.

With Nissan’s presence being felt today more than ever, the company is continuing to deepen its commitment to the region through new investments, reskilling, and preparing the next generation of workers. With this kind of dedication, Nissan will continue to play a pivotal role in the prosperity and growth of Tennessee for many more years to come.



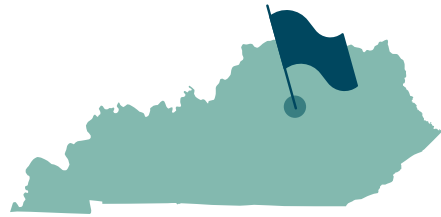
1983



2024

THE JAMA LEGACY

Georgetown, Kentucky



Est. 1988

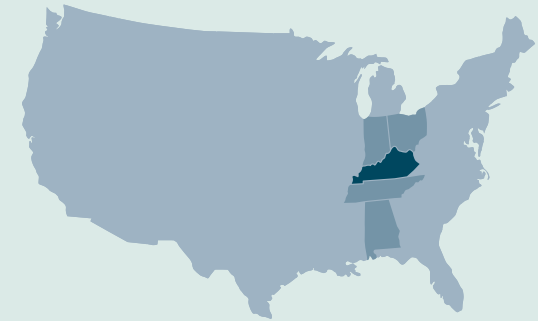
Toyota Motor Manufacturing, Kentucky (TMMK) prominently stands out globally for the company since TMMK is Toyota's largest vehicle manufacturing plant in North America, capable of producing 550,000 vehicles and more than 600,000 engines annually. Toyota broke ground in Georgetown, Kentucky, in May of 1986, and two years later, produced its first Camry. Since then, Toyota has manufactured more than 13 million vehicles in Kentucky, including Lexus vehicles starting in 2015, as well as four-cylinder and V-6 engines.



Similar to many of JAMA members' facilities in the United States, Toyota's impact is not just measured by its direct investment in one facility. In fact, Toyota works with 400+ different parts and commodities supplier locations in the U.S. with more than 120 of those just in the state of Kentucky. This has led to more jobs and opportunities not only for those in the immediate community, but also in the state and throughout the country.

Over the years, Toyota has also innovated to reduce the overall impact of its operations on the environment. In 2015, Toyota partnered with a local landfill to collect methane gas, a by-product of trash decomposition, and convert it into energy. TMMK's on-site generator converts collected methane into energy, which is then fed to the plant via a 6.5-mile underground line. In addition, to support water conservation efforts, TMMK uses recycled water for many of its manufacturing processes. The plant receives over 1 million gallons of water each day, cleans it at on-site processing plants, uses it in various processes, cleans it once more and routes it back to the local water utility.

The Toyota facility has also had a deep, meaningful and long-lasting impact on local communities. Since 1986, the company has invested more than \$154 million in various philanthropic and educational initiatives including a number of initiatives benefiting the community around the Georgetown facility.



THE JAMA LEGACY

Lafayette, Indiana



Est. 1989

In 2022, Subaru of Indiana Automotive (SIA) celebrated its 35th anniversary and subsequently produced its 5 millionth vehicle. This milestone is the result of a legacy that is multiple decades in the making and a story that Subaru continues to write as it leaves its mark on the local community and Indiana more broadly.

When Subaru initially chose the Lafayette area as its new home there were many questions from the local community about whether or not the facility would survive as the automaker was a household name in the U.S. at the time. But even as the facility and its workers faced challenges and changes, they have persisted and flourished. Today, as Subaru's only facility outside of Japan, SIA boasts over 6,700 employees, exclusively producing Subaru vehicles nearly around the clock mostly for the North American market, and represents an investment of almost \$3 billion in the state of Indiana.

While these numbers are impressive, the initial investment in 1989 proved to be much more consequential to Indiana than a single

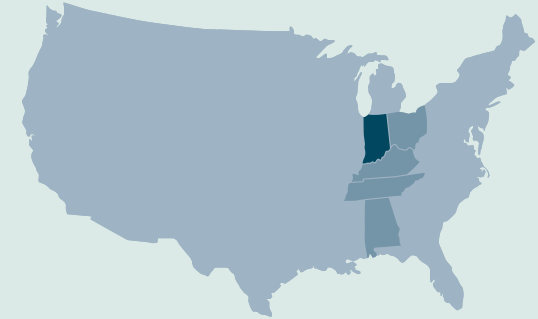
automotive facility. The decision to open a facility in Indiana has been credited with starting an economic revival in the state and kickstarting a now long-standing relationship between Indiana and Japanese industry. Since 1989, billions of dollars have flowed into the state from Japan-based companies, many of which are automotive and include facilities from Honda and Toyota. The relationship is so strong in fact that Japan is perennially Indiana's top foreign investment and trading partner.

But this kind of good-quality FDI is only possible with local buy-in, a dedicated and engaged workforce, and a strong sense of community and the loyalty of employees—all things Subaru stands for and continues to foster. The SIA Foundation annually supports numerous local charities with thousands of dollars in grant money. The facility itself is the first zero landfill automotive facility in the country and has become a model for many others. The company also regularly engages the local community through educational programs, charity drives, and other programming.

All these efforts demonstrate that Subaru is clearly in it for the long-haul. For its workers, and for their community, in addition to being a good neighbor, SIA is a focal point of growth, support, and positive change in the greater Lafayette area.



SUBARU



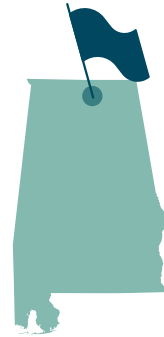
1989



2023

THE JAMA LEGACY

Huntsville, Alabama



Est. 2021

In 2018, Mazda and Toyota joined forces to help propel the legacy of Japanese-brand automakers forward. So when Mazda and Toyota chose the Huntsville, Alabama, area for their new manufacturing facility, they were looking to make a commitment that would be a centerpiece of the community for years to come. For the locals in Huntsville, this new facility also represented a new opportunity for workers in an area of the country that is growing and is increasingly important for the automotive supply chain.

Construction began in 2019 and starting in 2021, the very first Toyota Corolla Cross left the assembly line. Since then, the facility also began producing the Corolla Cross Hybrid-Electric Vehicle (HEV) and the Mazda CX-50. In 2023, the facility produced over 150,000 vehicles. All told, the companies have invested a combined \$2.31 billion in the facility and now employ over 4,500 hard-working Americans.

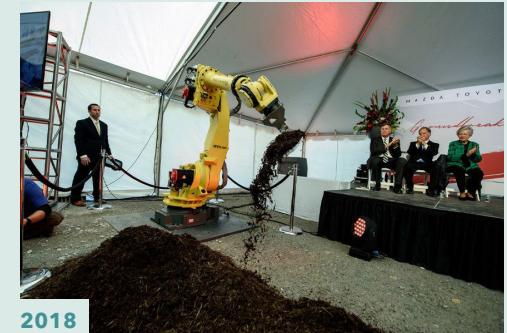
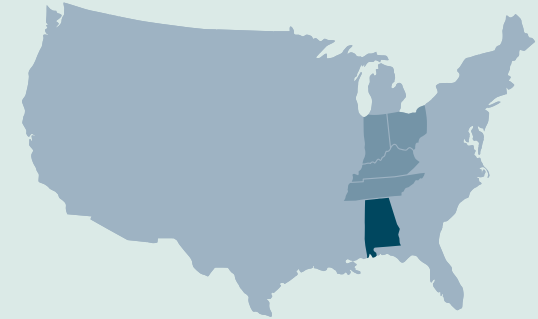
But the work is not just on the factory floor, it's also out in the community where Mazda-Toyota continually looks to make an impact.

In 2022, the company opened its doors for a community appreciation event. As part of the event, the Mazda-Toyota team provided tours to assembled guests, highlighting the state-of-the-art automotive facility. The companies also handed out a number of grants through their partnership with the Community Foundation of Greater Huntsville totalling over \$180,000 as part of this event. The grants went to organizations that serve the local community through education, economic impact and quality of life programming. Awardees for this first round of grants included Huntsville Hospital Foundation, Drake State Technical College, Limestone County Career Technical Center, Madison City Schools, Athens State University Foundation, the Cap and Gown Project, and KTECH. Many of these partnerships have continued and the Mazda-Toyota Manufacturing grant fund in 2023, awarded an additional \$150,000 to local organizations.

As an ongoing legacy, when our members invest in U.S. manufacturing, they lead with their commitment to the success of local communities. Whether it's through supporting STEM/STEAM education, workforce training, or sponsoring a local event, these are the ways Japanese-brand automakers make their impact known in ways both big and small. Mazda-Toyota Manufacturing is just the latest in a long legacy of this commitment and one we're looking forward to highlighting for decades more to come.



MAZDA TOYOTA
MANUFACTURING



Strengthening Communities

Good-quality foreign direct investment by Japanese-brand automakers transcends the dollars and cents that go into operating a business. At its core, it values people. For over four decades, these automakers have prioritized partnering with communities across the United States. They take pride in being good neighbors and corporate citizens. In fact, **since 1957, Japanese-brand automakers have provided over \$1 billion in charitable contributions, including \$150 million in 2023.** Japanese-brand automakers have established themselves as committed, long-standing community partners and conscientious stewards of the places they call home and they continue to build upon this legacy.

Strengthening communities takes many forms and the following examples are just some of the many ways in which Japanese-brand automakers look to give back to the people and communities that make what they do possible.

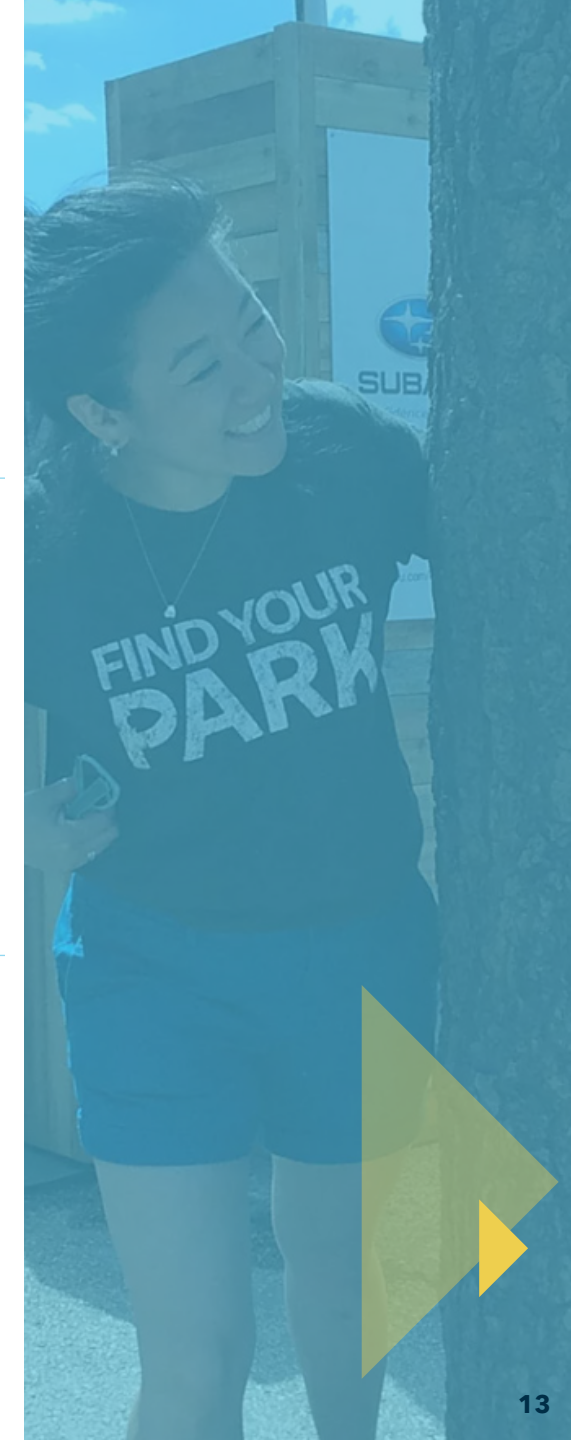
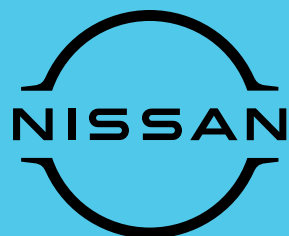




In January 2024, Toyota Motor North America announced the awardees of grants through its Way Forward Fund, a multi-year initiative aimed at strengthening access to care and injury recovery support for individuals and their families, with an initial focus on children with traumatic brain injuries. This is the second round of grants awarded through the Way Forward Fund. More than \$8 million in grants was made available to the selected institutions, with an emphasis on raising the quality of healthcare in communities with the greatest need.

In October 2023, Honda and Discovery Education launched a new multi-year safety initiative to help address the nearly one-third of annual traffic fatalities in the U.S. involving drivers under the age of 25. Honda Safety Driven is a new national safety program and education initiative that empowers students nationwide to use safe driving skills as a roadmap to become responsible decision-makers.

In June 2023, the Nissan Foundation awarded more than \$1 million in grants to 39 nonprofits promoting the value of cultural diversity. The grant recipients are based in communities surrounding Nissan facilities in Southern California, Middle Tennessee, Central Mississippi, Dallas/Ft. Worth, Southeast Michigan, New York City and Atlanta. Among 2023 grantees is the Native American Indian Association of Tennessee, a nonprofit agency established to help improve the quality of life for Native American people in the state.

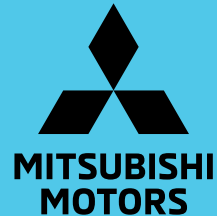




In February 2024, the Mazda Foundation (USA) Inc., awarded funding for seven programs this year, renewing the organization’s commitment to addressing food insecurity and some of its many root causes, particularly equitable access to education and job opportunities. In total, the Mazda Foundation awarded over \$500,000 to organizations across the United States. This year’s awards again includes the Second Harvest Food Bank of Orange County in California, which collects food and distributes it to more than 400 local member charities. This marks the 18th year the Mazda Foundation has supported this organization.



Subaru believes all pets deserve a loving home and that’s why they are the largest corporate donor to the American Society for the Prevention of Cruelty to Animals (ASPCA). Through the Subaru Loves Pets® initiative, Subaru and their retailers have been committed to improving the lives of as many shelter animals as possible. Subaru is proud to help make the world a better place for them with over \$52 million donated to national and local organizations, which has supported the adoption, rescue, transport, and health of over 480,000 animals.



Mitsubishi Motors North America, Inc. (MMNA) celebrates dealer partners who go above and beyond for their communities. They provide more than just a great place to buy a car - they help their hometowns thrive in the good times and heal in the challenging times.



Building Careers

Since first establishing production back in 1982, Japanese-brand auto-makers' good-quality foreign direct investment continues to bolster U.S. competitiveness through their long-term commitment to the U.S. workforce. JAMA members' dedication to this mission is demonstrated through various initiatives spanning the talent pipeline, from K-12 education, technical training schools, community college partnerships to collaboration with four-year universities. These programs are proven pathways toward developing a competitive workforce and are the building blocks to meaningful jobs and enduring careers.

Over the next several pages **we explore how JAMA members support strengthening this talent pipeline at every level.**





K-12

The Toyota 4T Academy is a national high school pathway program designed to provide high school juniors and seniors with an innovative education experience, pairing hands-on learning with on-the-job training at Toyota. The program originally started in Indiana in 2020, later expanding to West Virginia. In 2023, Toyota brought its 4T Academy to Mississippi, further expanding an important program for developing the local workforce.



K-12

In October 2023, Honda hosted Manufacturing Day (MFG Day) activities for students and teachers at nine of its U.S. production facilities, highlighting a remarkably broad array of exciting career opportunities in modern manufacturing whether at Honda, within the company's supplier network or at other manufacturing companies across America. Honda's MFG Day events included more than 1,600 students from 40 different schools in Alabama, Georgia, Indiana, Ohio and the Carolinas.



K-12

In February 2023, Nissan hosted 62 African American high school students from around the country as part of the annual Nissan Ready program. The Nissan Ready program, which first began in 2014, is an initiative in partnership with 100 Black Men of America that works to educate and inspire students through interactive career-building workshops, dynamic presentations, and building camaraderie.





K-12

In 2023, Mazda continued supporting its College Track program, which aims to equip students confronting systemic barriers to earn a bachelor's degree in pursuit of a life of opportunity, choice, and power. At the core of College Track's program model is the 10-year commitment they make to each student, from ninth grade through college graduation. The Mazda Foundation's funding supports programming at College Track's Los Angeles area program centers, located in Watts, Boyle Heights, and Crenshaw.



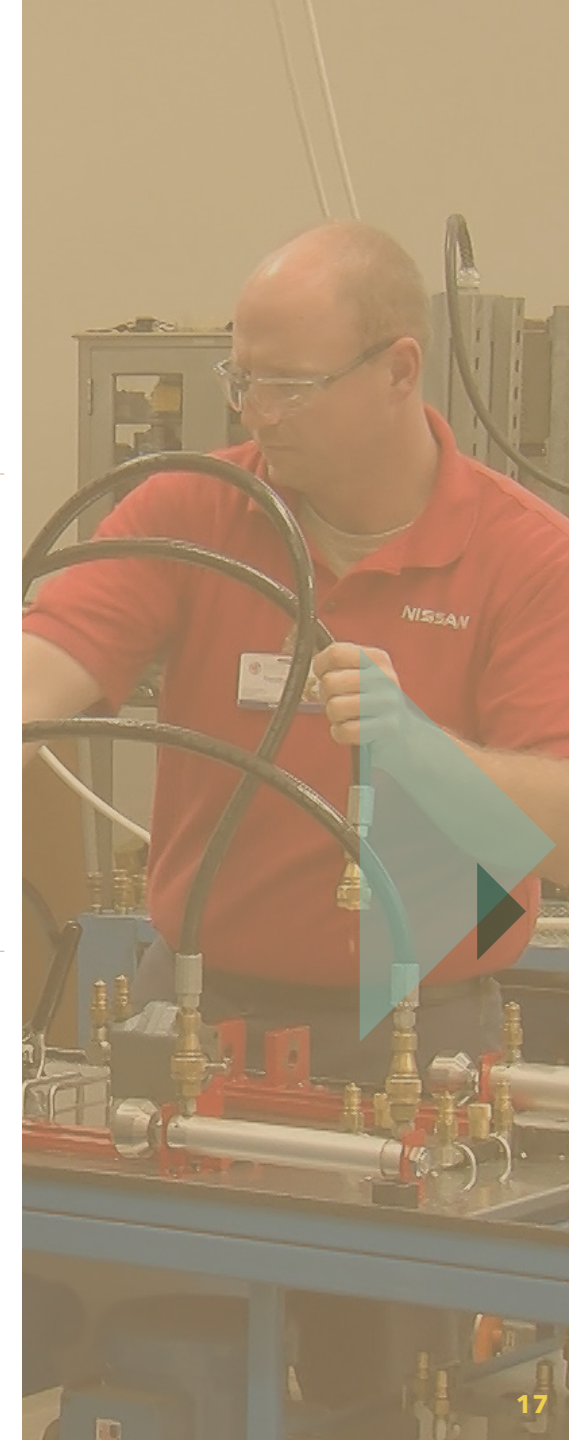
K-12

In September 2023, Subaru announced that as part of its Subaru Loves Learning initiative it would adopt all classrooms at high schools on the Camden High Campus. Subaru will also support the development of a graphic arts lab at Eastside High School with funding and materials donations, allowing the students to learn valuable technical skills and concurrently serve as a revenue generator for Eastside by creating branded gear for the school store. This new lab further enhances a grant from the Subaru of America Foundation to support career and technical efforts (CTE) through its partnership with 12Plus that connects students to a range of meaningful workforce development opportunities.



K-12

In 2023, The Manufacturing Institute and Honda brought the industry-leading Creators Wanted campaign to central Ohio in collaboration with the Ohio Manufacturers' Association and FactoryFix. Creators Wanted showcases the exciting career opportunities available, and technologies used, in modern manufacturing. As part of the event, Honda hosted more than 300 Ohio students on a tour of the Honda Heritage Center in Marysville. The students were able to experience Honda's history of innovation through various exhibits and tour the Honda Technical Development Center, where Honda associates have the opportunity to advance their skills for high-tech manufacturing.





COMMUNITY COLLEGE/TECHNICAL TRAINING

The Mazda Foundation supports the Vehicles for Change's Full Circle Auto Repair and Training Program, which helps fund paid internships and auto mechanic training for people with multiple barriers to employment, including those recently released from prison.



COMMUNITY COLLEGE/TECHNICAL TRAINING

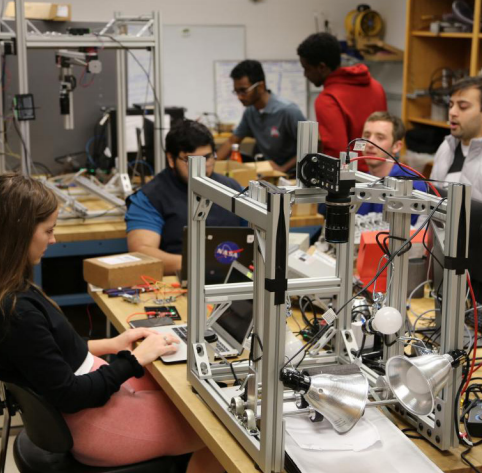
The Advanced Manufacturing Maintenance Training (AMMT) Program at Subaru of Indiana Automotive (SIA) is a two-year program that combines 26 weeks of classes at Vincennes University with on-the-job training. The program covers a number of areas vital to advanced automotive manufacturing including electrical, programmable logic controllers (PLCs), mechatronics, hydraulics, pneumatics, and print reading.



COMMUNITY COLLEGE/TECHNICAL TRAINING

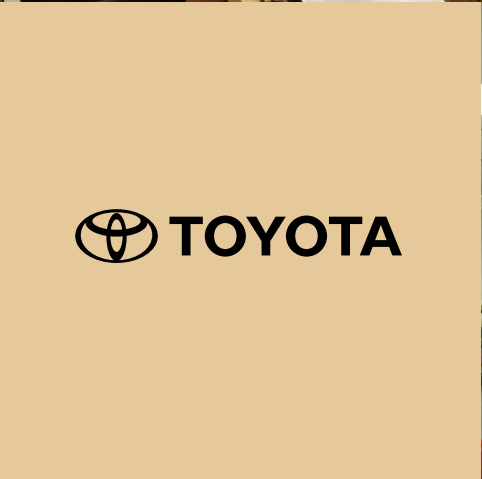
In January 2017, Nissan opened its training center in partnership with the College System of Tennessee at the Tennessee College of Applied Technology (TCAT) Murfreesboro campus. Both public TCAT students and employees from the Nissan Smyrna plant are enrolled at the education and training facility and learn various skills that are vital to the success of the region and in demand with employers. This includes automotive technology, collision repair, electrical maintenance, mechatronics and welding.





4-YEAR UNIVERSITY

Honda and Ohio State University have had a formal partnership since 2000, but have long worked together with much of the effort centered on cooperation around the use of the Transportation Research Center (TRC). Over the years, the relationship has grown to cover many areas including a unique capstone project for Ohio State engineering students. Through the program students are encouraged to push boundaries and deliver new designs and products in a real-world setting.



4-YEAR UNIVERSITY

Since 1994, Toyota and the University of Kentucky (UK) have partnered to create True LEAN, a Toyota-sponsored program that teaches students how to operate within and utilize the Toyota Production System (TPS). Housed in the UK College of Engineering, True Lean maintains an ongoing relationship with Toyota including a Toyota Executive-in-Residence. True Lean provides on-campus or onsite sessions and coaching. On-campus sessions include instruction in a specially-designed lab, and a leadership session includes a Toyota walking tour.



4-YEAR UNIVERSITY

In January 2022, Nissan and Vanderbilt University launched the Vanderbilt-Nissan Collaboration Accelerator. This program is designed to fuel a talent pipeline and identify opportunities for research and innovation between Nissan and the university. As part of this partnership, in 2023, Nissan worked with students and tasked them with creating an ideal customer journey for electric vehicle (EV) charging. The groups pitched ideas ranging from installing portable chargers in the EVs, to installing software to provide EV drivers with entertainment, such as TV shows and games while they charge up.



JAMA STATE SPOTLIGHT: Centers of Innovation and Design

California



SACRAMENTO

Toyota Motor North America R&D

SAN FRANCISCO

Calty Design Research, Inc. (Toyota) R&D

PALO ALTO

Toyota Research Institute R&D

MOUNTAIN VIEW

Honda Innovations, Inc. R&D
Toyota InfoTechnology Center, U.S.A., Inc. R&D

SILICON VALLEY

Toyota Motor North America R&D

SANTA CLARA

Nissan Technical Center North America R&D

SAN JOSE

Honda Research Institute USA, Inc. R&D

CANTIL

American Honda Motor Co., Inc., R&D

TORRANCE

American Honda Motor Co., Inc., U.S. Headquarters
American Honda Motor Co., Inc., R&D

GARDENA

Toyota Motor North America R&D

LONG BEACH

TABC, Inc. (Toyota) Manufacturing

CYPRESS

Subaru Research and Development, Inc. R&D

ANAHEIM

Isuzu North America Corporation U.S. Headquarters

TUSTIN

Subaru Research and Development, Inc. R&D

IRVINE

Mazda North American Operations, U.S. Headquarters
Mazda North American Operations, Inc. R&D

COSTA MESA

TRD, U.S.A., Inc. (Toyota) R&D

NEWPORT BEACH

Calty Design Research, Inc. (Toyota) R&D

SAN DIEGO

Nissan Design America R&D

Torrance, California - Starting in March 2023, Honda began demonstration testing a stationary fuel cell power station at its Torrance, California campus. This marked the company's first step toward future commercialization of zero-emission backup power generation. The fuel cell power station supplies emergency backup power to Honda's data center. Backup power systems utilizing hydrogen fuel cells offer a promising future for clean, reliable and high-quality power generation, especially when operating on "green hydrogen" from renewable sources with water vapor as the only emission.



Carson, California - In April 2024, California State University, Dominguez Hills (CSUDH) and Toyota Motor North America (TMNA) launched a multipronged program focused on transportation equity for the university and its surrounding communities based on the idea of "Mobility for All." The initial phase of the program will establish the Center for Resilient, Equitable, and Sustainable Transportation (CREST) at CSUDH, made possible by a \$1.2 million grant from Toyota. CREST will engage faculty and students in research, curriculum building, and paid internships to find solutions to the myriad of mobility challenges faced by members of the university and the wider community.



Garden Grove, California - For several years the Mazda Foundation has supported Bracken's Kitchen and their mission to rescue, repurpose and restore both food and lives by boosting food security, providing culinary training, and nourishing the community. The Mazda Foundation's funding also supports Bracken's Kitchen's Culinary Training Program, which provides at-risk young adults with the introductory skills needed for employment in a professional kitchen.



Michigan

- Facility
- Spotlight Story

- Auburn Hills
- Warren
- Farmington Hills
- Novi
- Wixom
- Plymouth
- Van Buren
- Ann Arbor
- Saline

- York Township
- Detroit
- Brownstown

AUBURN HILLS

Honda Development and Manufacturing LLC

WARREN

Honda Development and Manufacturing LLC

FARMINGTON HILLS

Nissan Technical Center, North America

NOVI

Hino Motors Manufacturing U.S.A., Inc.
R&D and Design Centers
U.S. Headquarters

WIXOM

Mazda North American Operations, Inc.

PLYMOUTH

Isuzu Technical Center of America, Inc.

VAN BUREN

Subaru R&D, Inc.

ANN ARBOR

Caly Design Research, Inc. (Toyota) R&D
Honda Development and Manufacturing LLC
Honda Research Institute, USA, Inc
Mitsubishi Motors R&D of America, Inc.
Toyota Motor North America R&D
Toyota Research Institute R&D

SALINE

Toyota Motor North America R&D

YORK

Toyota Motor North America R&D

YPSILANTI

Toyota Motor North America R&D

York Township, Michigan

Toyota recently announced a \$50 million investment to create a new automotive battery laboratory on the same campus as its R&D headquarters. The lab will be designed to evaluate and certify batteries for battery electric and other electrified vehicles. As part of its evaluation process, the new Michigan battery lab will ensure that Toyota's batteries meet North American customer requirements by confirming the performance, quality and durability of its automotive batteries. Operations at the new battery lab are expected to begin in 2025.



Detroit, Michigan

Every year, the Nissan Foundation awards a number of grants to nonprofits, libraries, and museums that are working to promote the value of cultural diversity and in 2023, two Detroit area projects were award recipients. One of the awardees was the Detroit Education Television Foundation to produce a program called "Stronger Together: One Detroit, Many Voices," which explores the history of the city and the other was the Interfaith Leadership Council of Metropolitan Detroit to support a religious diversity education program. All told, the foundation donated more than \$100,000 to various organizations around the state of Michigan in an effort to celebrate diverse cultural community perspectives, experiences, and voices.



Brownstown, Michigan

As part of their long-standing partnership, Honda and GM announced the creation of a new fuel cell development joint venture known as the Fuel Cell System Manufacturing LLC. The two companies have been working to develop fuel cell technology since 2013. This recent, positive step forward is part of a renewed investment and the restart of production that was delayed due to the pandemic. This plant officially started its production earlier this year.



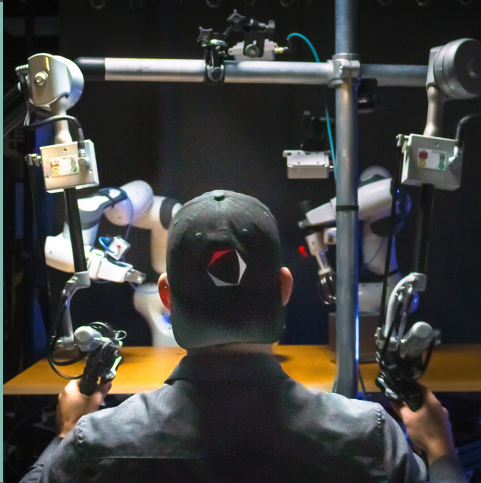
Driving Excellence

Japanese-brand automakers' research and development (R&D) and design roots in the United States run deep and even predate the start of manufacturing. Understanding and meeting the needs of all U.S. consumers continues to be a priority, and doing so in new and improved ways is the goal. As vehicles quickly become more connected, safe, and increasingly electrified, Japanese-brand automakers' investments in R&D and design are working hard to ensure their vehicles fit every consumer's needs. At the end of the day **JAMA members' investments in innovation and the creation of cutting-edge products help to boost U.S. competitiveness. This is good-quality foreign direct investment at work today and into the future.**





In April 2024, Honda developed an innovative web application utilizing AI technology to help expand the joy of the journey to the blind and visually impaired by creating and narrating nuanced real-time scenic audio descriptions of the world outside their car window. The Honda Scenic Audio app uses a combination of computer vision, generative AI, satellite imaging, and a multitude of other technologies and sources, including geotargeting and weather reports, to create a meticulously detailed, scenic narrative of what is taking place outside of the car window on a road trip or scenic drive, going beyond the basics of dictating the scenery.



In 2023, the Toyota Research Institute (TRI) in Silicon Valley and Cambridge Massachusetts, announced a breakthrough generative AI approach based on Diffusion Policy to quickly and confidently teach robots new, dexterous skills. Previous state-of-the-art techniques to teach robots new behaviors were slow, inconsistent, inefficient, and often limited to narrowly defined tasks performed in highly constrained environments. TRI has already taught robots more than 60 difficult, dexterous skills using the new approach, including pouring liquids, using tools, and manipulating deformable objects. Building on this success, TRI has set an ambitious target of teaching hundreds of new skills by the end of the year and 1,000 by the end of 2024.



In 2023, Nissan enhanced their headlight technology as part of its mission to protect people and help drivers avoid risky situations. The increased illumination of LED (light-emitting diode) headlights have created a dilemma: It allows drivers to see more clearly ahead, but can cause additional glare for drivers in the oncoming lane. At the Nissan Technical Center North America in Farmington Hills, Michigan, the company has been working on innovative new designs that allow for better positioning of the brightest portion of the light and even interesting and creative styling.





On September 19, 2023, Subaru announced it partnered with Discovery Education, a worldwide leader in education solutions, along with a few other organizations to launch the Sustainability Education Coalition. This first-of-its-kind initiative is focused on empowering over 10 million students by 2030 to serve as ambassadors for sustainability by providing the digital resources K-12 students need to make informed decisions and take responsible actions supporting sustainability.



In 1991, Mazda and Bose began a technology partnership that has spanned three decades and numerous vehicle models. Since Mazda and Bose first started working together on the third-generation Mazda RX-7, the two companies have continued to collaborate on innovative premium sound solutions that contribute to a superior driving experience. Put together, the power of sound and the joy of driving deliver an outstanding and engaging customer experience that lets passengers feel all the acoustic detail and emotional impact of a live concert inside their own car.

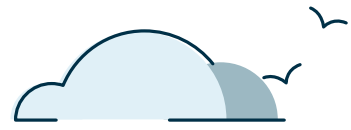


In February 2024, Mitsubishi Motors announced the release of ClickShop 2.0, an industry-first digital solution that connects the car-buying journey from Mitsubishi Motors' Tier-1, and its dealer partner's Tier-3, websites directly to the Mitsubishi Motors dealer showrooms. All of this ensures that consumers have the tools they need to find the right car for them and within their budgets. Innovation isn't just limited to the vehicle, it can also be about the consumer retail experience.



\$30 Billion* in Investments since 2017

THE *Electrified Vehicle Transition*



Battery Manufacturing

JAMA members are supporting their U.S. electrified vehicle manufacturing operations by investing in developing U.S. battery manufacturing capacity. This includes the \$13.9 billion Toyota investment for a new battery facility in North Carolina expected to come online in 2025 that will produce batteries for both hybrid electric vehicles and battery electric vehicles. With a projected investment of over \$4 billion, the joint venture between Honda and LG Energy Solutions in Ohio to build a battery plant aims to start mass production of batteries in 2025 to supply Honda's U.S. EV Hub.

R&D

Due to decades of contributions to R&D and design in the U.S., Japanese-brand automakers are well-positioned to help drive innovation and support the build-out of the U.S. battery supply chain. This includes the \$50 million battery research lab Toyota is building in Michigan and, through its long standing partnership, Honda and Ohio State University will open a \$22 million battery cell research and development center in Ohio.

Workforce Training

Japanese-brand automakers' long history of workforce preparedness and continuous improvement are foundational to the transition to electrified vehicles and the strength of the U.S. automotive workforce. JAMA members with current or future U.S. electrified vehicle manufacturing are integrating software, robotics and electrical engineering know-how, the advancement of electro-mechanical and mechatronics technicians' skills, along with training in areas including proper safety precautions when working with or near high voltage components.

Infrastructure

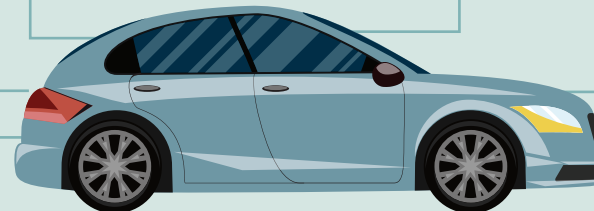
An electrified future requires a multitude of charging solutions to meet consumer needs. The partnership between Toyota and the San Diego Gas and Electric company or Nissan's work with Fermata Energy to explore vehicle-to-grid technology, and Honda's collaboration with other automakers to establish a series of electric vehicle chargers under a new joint venture called IONNA, exemplify Japanese-brand automakers' efforts to help meet this need.

Battery Recycling

Manufacturing vehicle batteries in the U.S means identifying a secure, clean, and reliable supply chain of critical minerals, and battery recycling may play a major role in supporting this effort. To that end, Toyota and Redwood Materials together continue to explore ways to reuse cathode active material and anode copper foil from batteries that have already reached their end of life. Similarly, Honda is working with Ascend Elements and Cirba Solutions, both U.S.-based companies, to create a sustainable circular supply chain for electric vehicle battery materials.

Vehicle Production

Japanese-brand automakers have been expanding their 40+ year U.S. manufacturing legacy into electrified vehicle production. Nissan continues to expand its battery electric vehicle (BEV) production operations in Tennessee and Mississippi. Meanwhile, Honda's conventional hybrid production in Ohio and Indiana and Toyota's conventional and plug-in hybrid production in Indiana, Kentucky and Texas also continue to advance forward as Honda simultaneously embarks on its journey to create an EV Hub in Ohio and Toyota prepares for BEV production in Kentucky and Indiana.



*Represents electrification investments and commitments.

ELECTRIFIED VEHICLES

Central to the electrified vehicle transition is the consumer. Japanese-brand automakers remain committed to providing electrified vehicle options that fit every consumer's needs and importantly remain fun to drive. Below are just some of the electrified vehicles Japanese-brand automakers offer to U.S. consumers.



HINO ME5 (BEV)



HONDA ACCORD (HYBRID)



HONDA CRV (FCEV)



HONDA PROLOGUE (BEV)



MAZDA CX70 (PHEV)



MAZDA CX90 (PHEV)



MITSUBISHI OUTLANDER (PHEV)



NISSAN ARIYA (BEV)



NISSAN LEAF (BEV)



SUBARU SOLTERRA (BEV)



TOYOTA BZ4X (EV)



TOYOTA HIGHLANDER (HYBRID)



TOYOTA RAV4 PRIME (PHEV)

**Total Vehicles
Produced in 2023**

3,204,036

**Total Engines
Produced in 2023**

3,906,408

**Total Manufacturing
Employees in 2023**

73,552

**Total Cumulative
Manufacturing Investment**

\$61.6 B

	Name of Company	Location	Products	Units Produced in 2023	Employees	Total Investment (\$ Million)
Hino	Hino Motors Manufacturing U.S.A., Inc.	Marion, AR	Differential, Rear Axle & Suspension Related parts for Toyota vehicles	451,702	1,180	690
		Mineral Wells, WV	L series, XL series	5,836	411	
Honda	Honda of America Manufacturing, Inc.	Marysville, OH	Accord, Accord hybrid, Acura Integra, Acura TLX, Acura TLX Type S	269,912	4,600	5,400
		Marysville, OH	PMC Edition Acura TLX Type S	373	100	70
		East Liberty, OH	CR-V, CR-V hybrid, Acura MDX, Acura RDX	206,940	2,800	1,900
		Anna, OH	4-cyl. and V-6 Engines	944,835	2,800	2,900
	Honda Transmission Mfg. of America, Inc.	Russels Point, OH	CVT-HEV transmissions Gearsets 4WD Systems 4WD Transfers	770,466 1,414,743 Rear diff - 301,625 Co-axial - 207,481 99,117	1,100	1,100
Honda Manufacturing of Alabama, LLC	Lincoln, AL	Odyssey, Passport, Pilot, Ridgeline	306,787	4,500	3,000	
		V-6 Engines	306,426			
Honda Precision Parts of Georgia, LLC	Tallapoosa, GA	V-6 Transmissions	341,796	450	485	
Honda Manufacturing of Indiana, LLC	Greensburg, IN	CR-V, CR-V Hybrid, Civic	234,250	2,600	1,300	

Mazda- Toyota	Mazda Toyota Manufacturing,US, Inc (MTM)	Huntsville, AL	Mazda CX-50	61,503	4,780	2,311
			Toyota Corolla Cross, Toyota Corolla Cross HEV	94,535		
Nissan	Nissan Smyrna Vehicle Assembly Plant	Smyrna, TN	Rogue, Pathfinder, Murano, LEAF, QX60	358,140	7,400	8,300
	Nissan Decherd Powertrain Plant	Decherd, TN	Engines	710,677	2,100	1,900
	Nissan Canton Vehicle Assembly Plant	Canton, MS	Altima, Frontier, Titan	247,162	5,000	4,000
Subaru	Subaru of Indiana Automotive, Inc.	Lafayette, IN	Ascent, Crosstrek, Impreza, Legacy, Outback	350,820	6,748	2,606
Toyota	TABC Inc. (TABC)	Long Beach, CA	Sub-assemblies	611,192	276	544
			Stamping parts	6,289,595		
			Front arms	282,100		
	Toyota Motor Manufacturing Kentucky, Inc. (TMMK)	Georgetown, KY	Camry, Camry HEV, RAV4 HEV, Lexus ES, Lexus ES HEV	433,849	9,863	8,181
			Engines	687,286		
	Toyota Motor Manufacturing Missouri, Inc. (TMMMO)	Troy, MO (TMMMO)	Cylinder heads	2,379,216	982	1,010
		Jackson, TN (TMMTN)	Engine blocks, Transmission	1,965,294	447	
			Transmission Case & Housing	1,153,353		
	Toyota Motor Manufacturing, West Virginia, Inc. (TMMWV)	Buffalo, WV	Engines	478,361	2,145	1,703
			Transmissions	210,380		
			Transaxles	210,400		
	Toyota Motor Manufacturing, Indiana, Inc. (TMMI)	Princeton, IN	Sienna HEV, Highlander, Highlander HEV, Grand Highlander, Lexus TX	363,060	7,619	7,301
	Toyota Motor Manufacturing, Alabama, Inc. (TMMAL)	Huntsville, AL	Engines	778,823	1,984	1,418
	Toyota Motor Manufacturing, Texas, Inc. (TMMTX)	San Antonio, TX	Tundra, Tundra HEV, Sequoia HEV	114,650	3,655	3,934
	Toyota Motor Manufacturing, Mississippi, Inc. (TMMMS)	Blue Springs, MS	Corolla	156,219	2,212	1,594



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