



SASAKAWA USA
Sasakawa Peace Foundation USA

Understanding the Role of Japanese Automakers and Suppliers in the U.S. Automotive Industry

Abstract

On Thursday, September 16, 2021, Sasakawa Peace Foundation USA (Sasakawa USA) hosted a virtual event, “Understanding the Role of Japanese Automakers and Suppliers in the U.S. Automotive Industry,” featuring remarks by Mr. Manny Manriquez, General Director of the Japan Automobile Manufacturers Association (JAMA) U.S. Office, and Ms. Jennifer Heckmann, Senior Manager at DENSO. Mr. Manriquez provided insights from the perspective of JAMA members, which provide nearly 95,000 direct U.S. jobs and support investments in 28 states. Ms. Heckmann introduced innovative measures taken by DENSO to address evolving challenges and opportunities in the automotive manufacturing industry, from pursuing carbon neutrality by 2035 to cultivating the next generation of skilled American technicians. Both speakers emphasized the robustness and complexity of the relationships Japanese automakers and suppliers have with American communities, transcending economic ties to improve educational opportunities, address environmental concerns, and support local humanitarian efforts.

This talk was presented by Sasakawa USA’s Policy Briefing Series and was held virtually via Zoom. Attendees included distinguished guests from the Washington, D.C. policy community, representatives from the automotive manufacturing sector, and leaders from American and Japanese business and government. Introductory remarks were provided by Dr. Satoshiro Akimoto, Chairman and President at Sasakawa USA, who also facilitated the event and moderated the Q&A discussion.

Japanese Automakers in the United States: An Economic Success Story

Dr. Akimoto opened the event by observing that Japan continues to be a global leader in the auto industry. Japan and the United States have mutually benefited from the strong relationship they have cultivated through decades of close cooperation. He noted that Japanese automotive manufacturers and suppliers have become deeply integrated with the U.S. industrial landscape by building complex networks of supply chains, producing and hiring locally, and initiating grassroots efforts to improve and invest in the futures of American communities. Dr. Akimoto expressed his hope that this economic success story can provide valuable insights and encouragement to support the expansion of economic and community-building relationships between these two countries.

Remarks from Mr. Manriquez

JAMA Members' Economic Impact in the United States

Following Dr. Akimoto's introduction, Mr. Manny Manriquez, General Director of the Japan Automobile Manufacturers Association (JAMA) U.S. Office, began his remarks by highlighting newly released data that demonstrates the significant economic impact made by JAMA members operating in the United States.¹ Notably, in 2020 JAMA members were responsible for providing 94,960 direct U.S. jobs across 28 states and cumulatively invested \$55.8 billion in their U.S. manufacturing operations. The total number of U.S. jobs supported by Japanese automakers in 2020 climbed to over 1.6 million, when including upstream and downstream firms and other jobs, which are offshoots of JAMA members' presence in local communities.

The longevity of the relationship between JAMA members and the U.S. automotive industry is also notable. Since 1986, JAMA members have purchased more than \$1.3 trillion in U.S. parts and are responsible for manufacturing a third of all vehicles produced in the United States. Thus, when automobile sales declined precipitously in the U.S. and around the world in 2020, U.S. employment numbers in the industry remained robust.

¹ The statistics supplied by Mr. Manriquez can be found on the JAMA U.S. Office's website (<http://jamainamerica.org/>), as well as in this [briefing document](#).

Investing in the U.S. Workforce

Another key component of the presence of Japanese automakers in the United States is their engagement with the American workforce. Mr. Manriquez described the following key areas where JAMA members have exhibited their commitment to forming lasting relationships in the United States through:

- Partnerships with the U.S. auto industry and high-tech sectors,
- Collaboration with private and public research institutions, and
- Investment in American workforce development and STEM education programs.

Some examples Mr. Manriquez cited included the Subaru Technical Training Center that opened in Lafayette, Indiana in 2019; a Toyota partnership with universities and technical colleges in Kentucky providing \$1.7 million in scholarships for underrepresented students in engineering; and a \$1.5 million donation from Nissan to Mississippi's Historically Black Colleges and Universities to support STEM education.

High-tech Innovation, R&D, and Eco-friendly Technologies

In addition to partnerships with American universities and research institutions, Mr. Manriquez pointed out that JAMA members are invested in establishing new U.S.-based R&D and design facilities, thus supporting the development of regional innovation hubs throughout the United States. He noted that in Santa Clara, California, Toyota and Iwatani Corporation are collaborating to expand the number of hydrogen fueling stations in Southern California by 25%; and in Ann Arbor, Michigan, Honda and Verizon are working together at the Mcity automated vehicle testing facility to explore how 5G can be employed in fast and reliable pedestrian detection, emergency vehicle warnings, and red-light warnings. These investments have culminated in a 75% increase in R&D/design employment by JAMA members over the last decade. In 2020, JAMA members were responsible for nearly 7,000 direct U.S. jobs just in the fields of R&D and design.

A significant part of the Japanese automakers' pursuit of advanced technology involves innovating eco-friendly vehicle technologies to address climate change. Notably, the first alternative-powered vehicles to enter the U.S. market were the Honda Insight, Toyota Prius, and Nissan LEAF. Today, JAMA members represent 60% of all eco-friendly vehicles on the road, and electrification continues to be a key area of focus in JAMA members' innovation efforts.

Mr. Manriquez continued by stating that Japanese-brand automakers have gone beyond integrating eco-friendly concepts into their product designs to pursue greener manufacturing operations and investments in sustainability initiatives. These efforts include Honda's donation of 90 acres to the Nature Conservancy in Marysville, Ohio; Subaru's Garden for Good to combat food insecurity in Camden, New Jersey; Toyota's conservation efforts to protect migratory butterfly populations; and Mitsubishi's support for a documentary film project to catalog sustainability efforts across the United States.

Supporting Local Communities

A final component of Japanese automakers' activities in the U.S. is their investment in K-12 education as well as donations to local nonprofit organizations in their communities. Mr. Manriquez included examples such as Nissan's partnership with Habitat for Humanity to provide vehicles, grants, and employee volunteer hours to address housing insecurity, as well as Mitsubishi's "Small Batch—Big Impact" initiative to provide vehicle loans to small nonprofits. JAMA members like Mazda, Subaru, and Hino have also provided grants and financial donations to schools, food banks, and other local nonprofit organizations across the United States.

The collective efforts by JAMA members to address humanitarian, environmental, and equity-related issues demonstrate how Japanese automakers' ties to the United States transcend economics and embody the two countries' strong friendship based on mutual understanding.

Remarks from Ms. Heckmann

Next, Dr. Akimoto introduced Ms. Jennifer Heckmann from DENSO to offer insights on the actions taken by one of the world's largest mobility suppliers to support their community and auto industry partners in the United States.

Ms. Heckmann began by explaining the key themes of DENSO's Long-term Policy for 2030 which are:

- Securing lasting vitality for the environment ("Green"),
- Providing a sense of wellbeing by developing safe and secure products and responding to humanity's most pressing concerns ("Peace of Mind"), and

- Making a difference in the communities touched by DENSO (“Inspiring”).

In addition to its overarching strategy for 2030, there are four primary “focus fields” where DENSO is investing in innovation: electrification, advanced safety and automated driving, connected driving, and non-automotive businesses.

DENSO’s Impact in the United States

Following her introduction, Ms. Heckmann provided some context for DENSO’s impact in the United States. According to data from fiscal year 2020, DENSO totaled \$9.7 billion in U.S. sales and maintained 17,000 employees at eleven manufacturing locations across eight states—for scale, DENSO’s total sales last year amounted to \$44.6 billion. DENSO’s history in the United States begins in 1966, when it established its first overseas sales and service office in Chicago. DENSO went on to establish its first overseas manufacturing plant in Battle Creek, Michigan, in 1984, and in the following year created its first overseas technical center in Detroit. In recent years, DENSO has established innovation centers in Silicon Valley, Texas, and Michigan.

DENSO’s major North American customers include names that Americans will be familiar with, such as GM, Ford, Harley-Davidson, BMW, Mercedes-Benz, Toyota, Subaru, Honda, Nissan, and John Deere. Ms. Heckmann emphasized that a guiding idea for DENSO’s supply base operations in the United States is “manufacture in the region, for the region,” meaning to source materials and components from the U.S. for use in the U.S.

Key Areas for Innovation: Carbon Neutrality and Electrification

Next, Ms. Heckmann introduced two key areas where DENSO is focusing its innovation efforts: the pursuit of carbon neutrality and electrification. DENSO has a target to achieve complete carbon neutrality by 2035. This target will encompass all facets of DENSO’s operations, including its energy use, manufacturing processes and materials, and its mobility products. DENSO achieved a major success in its pursuit of this goal in April 2021, when it opened a new demonstration facility designed to capture and recycle CO₂ at its Anjo Plant’s Electrification Innovation Center in Aichi, Japan. Ms. Heckmann noted that DENSO plans to commercialize and implement this technology across the globe.

A second area where DENSO is leading innovation is in the development of electrification elements. It is developing a diverse range of propulsion systems

such as hybrid, battery, fuel cell, and urban air mobility systems in anticipation of future mobility needs. Ms. Heckmann highlighted urban air mobility systems as an exciting new frontier for DENSO. In May of 2021, the company established an alliance with leading aerospace manufacturer, Honeywell, to develop electric propulsion units that can be used for air taxis and delivery vehicles. DENSO has also made significant investments in electrification research in the United States, such as its 2017 \$1 billion investment in its Maryville, Tennessee location to transform it into DENSO's primary manufacturing center in North America for electrification and safety systems.

Creating a Sustainable Workforce for the Future

Finally, Ms. Heckmann stated that the core of DENSO's success is its skilled, engaged, and well-cared-for workforce. She explained that DENSO's production values and professional growth culture are deeply shaped by the Japanese concepts of *monozukuri*— “the making of things” with skill and precision—and *hitozukuri*— “the making of people,” referring to human resource development and character-building.

Ms. Heckmann explained that there are many facets to DENSO's embodiment of *hitozukuri* in its workforce development measures, listing tuition reimbursement, internships and co-op programs, and family health care centers. Another key part of developing a sustainable future workforce is investing in further technical training for DENSO employees. The company currently has technical training centers in Merryville, Tennessee, and Battle Creek, Michigan, where technical staff receive customizable learning plans to achieve their educational goals, while DENSO simultaneously improves its production quality.

DENSO's plan for a sustainable future workforce expands beyond its circle of employees and their family members to include the wider community. The company has given \$49 million in charitable contributions in North America alone, and DENSO employees have donated 91,000 hours of volunteer work in their local communities. DENSO North America Foundation, for example, has provided over \$13 million in grants to over 53 institutions of higher education. DENSO also supports mentorship opportunities for students interested in pursuing careers in STEM. It sponsors individual robotics teams and competitions across the United States, and serves as the lead sponsor for RoboFest, a robotics competition held with Lawrence Technological University.

Ms. Heckmann concluded that the relationship between Japanese auto suppliers and manufacturers and the U.S. auto industry exemplifies how these two

countries have worked together to achieve cooperative success and positive outcomes for the environment, the future workforce, and local communities.

Moderated Q&A Discussion

Maintaining a Competitive Future Workforce in the United States

Dr. Akimoto began the Q&A discussion with a question regarding the future of the auto industry workforce. With the development of novel and sophisticated technologies, such as the urban air mobility systems Ms. Heckmann mentioned, the American workforce will also have to become sophisticated to progress with the industry's innovation goals. Considering this environment, he asked what requirements Japanese automakers and suppliers are looking for in the U.S. workforce of the future and what measures these automakers are taking to help Americans acquire these skills.

Mr. Manriquez began by affirming that the purpose of workforce development and STEM education initiatives is to secure a pipeline of "homegrown" talent in the United States to sustain the future of the U.S. auto industry. He mentioned that these initiatives provide STEM learning opportunities for students from pre-kindergarten to the university level. Mr. Manriquez noted that while products become more sophisticated, the manufacturing process does too. Thus, automakers will need highly skilled hands throughout the line of production, particularly in computer programming and software engineering. He emphasized that it is imperative for automakers to make long-term investments in the education of their future workforce, as technology will only advance with talented workers steering development.

Ms. Heckmann agreed with Mr. Manriquez's remarks on the importance of workforce development initiatives, particularly manufacturing technologies like high-speed video cameras, internet-connected mobility devices, and robotics. In DENSO's case, workforce development initiatives are pursued both within the company, through their technical training centers, as well as in the wider community, by collaborating with educators and community leaders.

Supporting Minority Communities

Next, Dr. Akimoto asked what kind of support and training Japanese automakers and suppliers are providing to expand access to employment opportunities and to help minorities in the workforce become more active in the automotive industry.

Mr. Manriquez stated that based on his own experiences of visiting JAMA member facilities across the country, the workforce on the manufacturing floor resembles the local community. He added that JAMA members are sensitive to the needs of the individual communities they work within and that they are proud to promote racial, ethnic, and gender diversity in their facilities to ensure that all community members can reap the benefits of employment with JAMA members.

Ms. Heckmann said that DENSO has taken steps to directly support minority members of its workforce, citing the establishment of its expansive North American diversity and inclusion initiatives in 2019 under the leadership of DENSO Vice President Denise Carlson. She added that DENSO has looked to Historically Black Colleges and Universities (HBCUs) for engineer recruitment. They are exploring resource groups in their facilities so that DENSO can expand opportunities for these communities.

Dr. Akimoto followed up his initial question by asking Ms. Heckmann about her personal experience observing the workforce at DENSO from her past role at DENSO's career office. Ms. Heckmann replied that she has seen many positive changes in the makeup of DENSO's workforce, especially regarding gender diversity. She is happy to see more women working for the company, particularly in management positions.

Priority Policy Areas for Auto Manufacturers and Suppliers

The next question came from an audience member who asked what the priority policy areas are for auto manufacturers and suppliers today.

Ms. Heckmann responded that workforce development and training the workers of the future is a priority area where DENSO is devoting significant time and resources. She added that supply chain and logistics issues, particularly for semiconductors, are of critical importance in the automotive industry.

Mr. Manriquez agreed with Ms. Heckmann's point about the importance of supply chains. He stated that JAMA member companies in the United States often draw from local suppliers—both in-state and from the region—adding that some of these supply chains have had over four decades to mature. Through developing these robust local supply chains within the United States and North America, JAMA members have been able to challenge the idea of what it means to produce an “American car.”

Investing in the Future of Mobility

The next question explored the future of mobility devices. As the auto industry has evolved to encompass an ever-widening industry segment, to include technologies such as air taxis and other urban air mobility systems, Dr. Akimoto asked how this changing industry environment has affected the kinds of investments auto manufacturers and suppliers are making to shape the future of mobility in the United States.

Mr. Manriquez responded that investments to shape future mobility are a cornerstone of JAMA members' operations in the United States. In shaping future mobility, JAMA members invest in eco-friendly vehicle technologies, advanced safety features, and autonomous driving. JAMA members have partnered with American R&D groups and have established their own R&D facilities in Silicon Valley and across the United States. He cited Honda's partnership with the Transportation Research Center in Ohio—the largest independent vehicle test facility and proving grounds in the United States—to test out new technologies. Subaru, another JAMA member, has collaborated with Purdue University in Indiana to test advanced autonomous technologies like V2X (“vehicle-to-everything”) communications systems, which support several features like collision warnings and lane departure alerts.

Ms. Heckmann stated that DENSO considers how quickly the auto industry is evolving and expanding and looks to accelerate the manufacturing and development processes. She cited as an example DENSO's recent investment in Seurat Technologies, which has developed additive manufacturing technology allowing for fast, precise, reliable, and cost-effective printing of metal parts at scale. These kinds of investments will not only reduce development and production time for auto manufacturers but will also positively impact other industrial manufacturers.

Global Supply Chain Strategy

An audience member then asked how Japanese automakers and suppliers are addressing supply chain disruptions, for example, strategies to reduce redundancies or increase localization.

Mr. Manriquez answered that the key to supply chain strategy is developing resilience. He stated that JAMA members are working toward optimal supply chain resiliency through requiring diverse sources of suppliers and constantly reviewing existing supply chains. He said that one strength JAMA members share is that so many of their supplies come from the United States and

the North American region. Mr. Manriquez concluded by stating that any policies the Biden Administration or Congress pursues should support JAMA member companies' deep investments in R&D and in workforce development—areas in which JAMA members have made significant contributions over the past four decades.

Ms. Heckmann stated that for some of the supply chain issues faced by DENSO, they are tackling this issue with a mindset of *kaizen*—striving for continuous gradual improvement at all levels of business activity, from those at the production line to DENSO's executives. She mentioned that DENSO learned many lessons from the Great East Japan Earthquake in March 2011, which prompted them to implement countermeasures to strengthen and increase resilience in their supply chains. Ms. Heckmann remarked that for semiconductors specifically, this is a long-term concern which DENSO will continue to track as it pursues autonomous systems and electrification.

Upcoming Challenges for U.S.-Japan Collaboration in the Auto Industry

Dr. Akimoto concluded the Q&A session by asking both speakers what they deem to be an upcoming challenge facing the United States and Japan as they pursue collaboration in the auto industry.

Mr. Manriquez stated that key challenges within the industry are staying on top of technological innovation and investing in electrification and autonomous vehicle technology. These activities are capital-intensive and considering the rapid rate at which new technologies are evolving, it will be a considerable challenge to consistently maintain a high degree of investment in the most cutting-edge technologies.

Ms. Heckmann remarked that in addition to investing in innovation, it is critical that automakers invest in developing their own workforces, as these people will be the ones to envision and execute the future of mobility. Mr. Manriquez concurred, stating that investment in the automotive industry workforce becomes even more important as competition from other industries with advanced workforces increases. He also said it is important to engage with younger generations to inspire and empower them to design safer, cleaner, and more sophisticated mobility technologies to be produced in the United States.

Dr. Akimoto closed the event by thanking Ms. Heckmann and Mr. Manriquez for shedding light on the great social and economic benefits reaped through collaboration between the United States and Japan in the automotive

industry. He also thanked them for their thoughtful Q&A responses, which provided great insight into how the United States and Japan may continue to cooperatively pursue cutting-edge mobility technologies while maintaining a sustainable domestic workforce in the United States.

Sasakawa USA is grateful to Mr. Manny Manriquez and Ms. Jennifer Heckmann for their insightful remarks on the important role that Japanese automakers and suppliers play in the U.S. automotive industry.

The summarized views of the speakers expressed herein are entirely the work of Sasakawa USA and do not represent the official positions of any of the speakers.

For more information about Sasakawa USA's Policy Briefing Series, click [here](#).