Madam Chair Castor, Ranking Member Graves and members of the Select Committee on the Climate Crisis, today I will testify on behalf of the one million active and retired members of the International Union, United Automobile, Aerospace, and Agricultural Implement Workers (UAW). Thank you for the opportunity to share our views on this important topic. It is an honor to speak before this distinguished committee.

Today, I will focus on the automotive sector and its impact on workers, the environment, and our economy at large.

The State of U.S. Auto Manufacturing

No other membership organization in the United States is more directly impacted by the health and stability of the domestic auto manufacturing industry than UAW members and retirees. The majority of our members and retirees work in or have retired from the auto industry. Changes in the industry and proposals to combat climate change have real life consequences for manufacturing workers, retirees, and their families.

The United States' motor vehicle industry is the cornerstone of American manufacturing jobs. Nearly one million people work in the auto and auto-parts manufacturing sectors.\(^1\) Of course, the economic impact of the auto industry reaches far beyond the workers employed at the plants and their families. The domestic vehicle assembly and parts industries are vital to our manufacturing base and it is imperative that we stay strong and competitive now and into the future. When jobs from other linked industries are included, the auto industry is responsible for

---

over seven million jobs nationwide. The long-term health of the industry is critically important to both workers and the economy at large.

**Employment Standards in the U.S. Auto Industry**

UAW members are proud of their important role in creating middle class jobs that have enabled countless workers to provide for their families and retire with dignity. Unfortunately, many auto jobs are not what they used to be.

Over the past fifteen years, U.S. automotive production workers’ wages have fallen significantly. When adjusting for inflation, average hourly earnings for production workers in auto assembly have declined by 23 percent, while wages in the auto parts sector have declined by 22 percent. Real wages have dropped despite remarkable increases in productivity. From 1979 to 2018, net worker productivity rose 69.6 percent, while the hourly pay of typical workers increased by only 11.6 percent over 39 years (after adjusting for inflation). To make matters worse, since 2000, the U.S. has lost over three million manufacturing production jobs.

A holistic approach is needed to address this complex problem. Congress and the Administration must fight for workers by strengthening our labor laws. Unionized workers are more likely to have health care benefits, employer provided pension plans and safer working conditions compared to their non-union counterparts.

Congress and the Administration must enact equitable tax policies that uplift working families and not reward CEO’s with massive tax breaks while incentivizing business to outsource jobs overseas.

Congress and the Administration need to put in place a strong industrial policy focused on education, workforce training, research and development, support for advanced manufacturing and technologies, building a 21st century infrastructure, balancing environmental and energy policy.

Of course, low wages and the lack of job security in U.S. manufacturing is far from the only serious challenge facing working people.

---


Tackling Our Climate Crisis
The climate crisis is real and growing. Failing to take concrete steps to address it puts us on an unsustainable course. It not only creates risks for our national security and our planet, but it is also a direct threat to our jobs, and an even bigger threat to the jobs and quality of life enjoyed by our children and grandchildren in the future.

There is no credible scientific debate on the connection between fossil fuel consumption, rising carbon dioxide levels in the earth’s atmosphere, and climate change. The impact is happening in real time as the number and strength of extreme weather and climate events such as heat waves and droughts have increased over the last several decades. UAW members and retirees throughout the continental United States and Puerto Rico have suffered from extreme weather events in recent years.

The problems created by climate change are grave and include increased risk of extinction for many species, risks to fisheries and crops, reduced access to fresh water, and more extreme storms that destroy homes and threaten to devastate coastal cities.

Protecting the environment is not inherently bad for the economy and solutions exist all around us. UAW members have proven that well-crafted regulations and policies can benefit both American workers and our environment.

Last decade UAW members reached a hard-fought consensus among a wide variety of stakeholders to significantly reduce passenger vehicle emissions and raise the Corporate Average Fuel Economy (CAFÉ) for passenger vehicles sold in the United States. This standard demonstrated that well-constructed regulations and policies can promote investment in advanced technology, create new jobs, and make our cars more attractive in foreign markets while allowing manufacturers the flexibility they need. Fuel efficiency is improving across the industry, including many vehicles and components made by UAW members.

Standards have played an important role in incentivizing the development of more energy efficient vehicles. It is not clear to what extent they will in the future. The Administration’s preferred alternative would drastically roll back fuel efficiency standards. Rolling back emissions standards risks allowing the U.S. auto industry to fall behind on advanced vehicle technology and sustainable innovation, just as other nations are promoting increased efficiency and lower emissions. It could also lead to years of litigation and uncertainty. This would not be a good outcome for workers, the economy, or the environment.
We urge the Administration to not adopt the preferred alternative.

The Future of EVs
A strong, forward looking industrial policy is needed to promote the manufacturing of EVs in the United States. Again, our trade, tax, labor, and environmental policies must work in tandem to promote the manufacturing of EVs in the United States. We can promote high quality manufacturing jobs that make vehicles of the future in the U.S. in a myriad of ways, such as: advancing trade policies that strengthen U.S. manufacturing, investing in clean energy infrastructure, supporting worker training, and advancing pro-worker policies that enable workers’ to collectively bargain free of employer intimidation.5

EVs are currently only one percent of the U.S. market but are projected to rise to 10 percent of the market in the mid-2020’s and over 50 percent by 2040.6 EVs will increase their market share, it is just a matter of how quickly. This change will not come without serious challenges.

The shift to EVs involves a fundamental change in the components that power the vehicle. We could see changes in where the most valuable auto components are made, decreased employment in powertrain manufacturing, and the entrance of corporate actors without a manufacturing base.

If the EV manufacturing footprint takes root outside the US, it will be extremely difficult for the U.S. to recapture that work in the future. The capital intensity and long manufacturing lead times in auto, makes the possibility of reshoring the EV market once it has left, all the less likely.

As consumer demand grows and technologies evolve, it is essential that we are building EVs in the United States. This opportunity will be lost if EV components are imported or made by low road suppliers who underpay workers. We must have an industrial policy that fosters the creation of high-quality manufacturing jobs making EVs and their components.

Most of the production footprint for tomorrow’s advanced automotive technology is being developed overseas. It is projected that by 2021, 56 percent of the battery manufacturing capacity will be in China and another 19 percent will be in Europe. The U.S. will only have 14 percent of global battery production capacity. The U.S. is currently falling behind its Asian and European counterparts.

6 https://about.bnef.com/electric-vehicle-outlook/
EVs and Plug-in Hybrid Vehicles made up approximately 2 percent of US passenger vehicle sales in 2018. Given that production volumes are still relatively small, automakers are in the process of developing their EV strategies. Policy incentives at this early stage could influence where and under what conditions the cars are made.

Some automakers have made commitments to build EVs on U.S. soil, illustrating we could expand the number of America workers in high quality jobs building the cars that will help meet our climate goals.

For example:
- Ford’s plans to make EVs in Flat Rock, MI
- GM’s plans to build a new EV in Orion Township, MI
- Fiat Chrysler will build a Jeep Wrangler PHEV in Toledo, OH

At the same time, some production has moved overseas.

For example:
- GM ended production of the Chevy Volt plug-in hybrid in February 2019. The Chevy Volt was made at GM’s Detroit-Hamtramck plant, which GM has declared “unallocated.”

As consumer demand grows and technologies evolve, it is essential that we are building EVs in the United States. This opportunity will be lost if EV components are imported or made by low road suppliers who underpay workers.

---

7 http://www.ev-volumes.com/country/usa/
12 https://www.autonews.com/article/20180508/BLOG06/180509813/a-final-goodbye-to-the-ford-focus-c-max
Countries around the globe continue to promote greater efficiency and lower emissions. The greener vehicles of the future are going to be made somewhere and other countries are preparing for these new technologies. We could see the U.S. auto industry fall behind on advanced technology, hurting the American economy and American workers.

The global market is moving towards ever more efficient vehicles, including hybrids and electric vehicles. It has been projected that by 2040, over 50 percent of new car sales globally will be electric and over 30 percent of cars on the road will be powered by batteries. Yet, where will the batteries that power these vehicles be made? As it stands today, most of the production footprint of tomorrow’s advance automotive technology will be overseas.

In addition, the demand for raw materials such as cobalt and lithium to make EV batteries often come at troubling cost. 60 percent of the world’s cobalt is mined in the Democratic Republic of Congo (DRC), where child labor and other labor abuses are prevalent, and injury and death are common. Congress should not ignore this part of the supply chain. Congress should take measures to hold companies accountable that exploit workers throughout the entire supply chain.

EVs and autonomous vehicles (AVs) of the future will be heavily reliant on semiconductors. It is estimated that an EV/AV will have over a thousand dollars’ worth of semiconductors. This increase in semiconductor usage comes at a time when U.S. semiconductor manufacturing has been in decline. The total number of U.S. fabrication plants have decreased from 123 in 2007 to 95 today, while the industry employs 100,000 fewer production workers than it did at the turn of the century. Currently, U.S. manufacturers account for only 13 percent of the global semiconductor supply. This is because the U.S. is no longer attracting new fabrication plants. In 2011, of 27 high-volume fabrications plants built worldwide, only one was in the U.S.; 18 were in China and 4 in Taiwan. In 2018, 20 new fabrication projects had been announced in China, with total investment exceeding $10 billion.

**Next Steps**

Federal policy must strongly incentivize investment in and production of advanced technology components and vehicles in the U.S. If the U.S. falls behind on this front, it will erode our

---

13 [https://about.bnef.com/electric-vehicle-outlook/](https://about.bnef.com/electric-vehicle-outlook/)
16 BLS, Quarterly Census of Employment and Wages (QCEW) for NAICS 334413, [http://www.bls.gov/cew/](http://www.bls.gov/cew/).
competitive advantages in manufacturing and research. We all have an obligation to not cede the jobs and technology of the future to other countries.

The U.S. is in a race with other advanced countries to develop the automobiles and technologies of the future. While Germany and other industrialized countries have developed policies that are investing in its citizenry and infrastructure, the U.S. has instead taken a low-road approach. Corporations may develop new products in the U.S., but they have increasingly outsourced manufacturing to low-cost countries. Maintaining the status quo is not an option.

Special attention must be paid to key components that are important for the U.S. to remain relevant in vehicle parts manufacturing.

Safeguards should be put in place to ensure domestic production of strategic parts. Technologies that have been developed, primarily thanks to American R&D (for example, AVs) and regulatory requirements (emissions and fuel efficiency standards), should be manufactured in the U.S. Protecting strategic parts will help ensure U.S. manufacturers will remain industry leaders, and that all American workers will share in that prosperity.

**Conclusion**

American workers have a proud history of building the equipment and technologies that have made the U.S. a global leader.

As we confront the climate crisis, we urge Congress to support policies that invest in U.S. manufacturing and promote U.S. leadership in advanced auto technology. Our policies to fight climate change must promote investment in building diverse fleets of vehicles on U.S. soil with high quality jobs that contribute to stronger communities for generations to come.

We stand ready to work with you and all other stakeholders on crafting policies that are good for working people, environment, and national economy.

I look forward to answering your questions.