

# Auto Industry Outlook

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Alivia Metts  
Principal Economist  
**The Metts Group**

# Overview

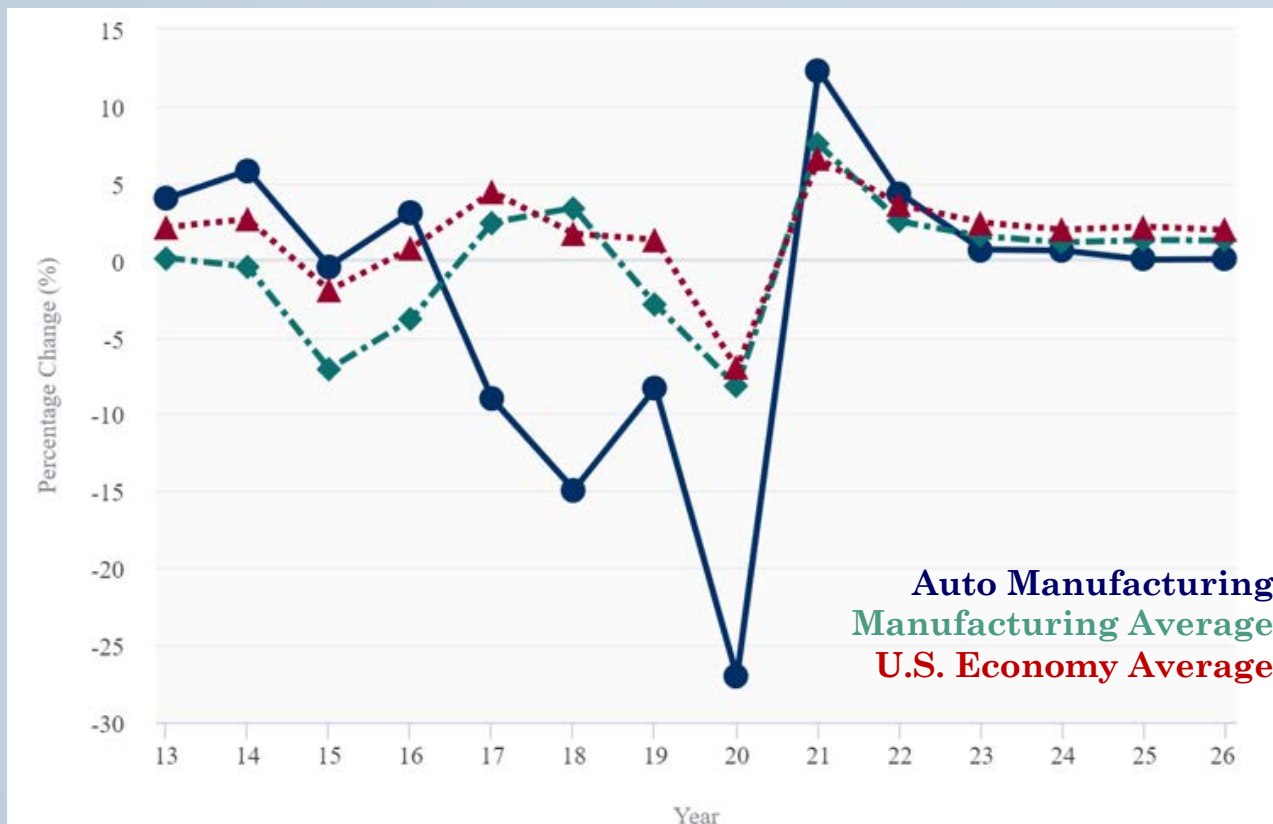
- Introduction
- State of the Industry
- Contributing Indicators and Trends
- Technologies
- Conclusion



### Missouri: Hallmark Cards Inc.

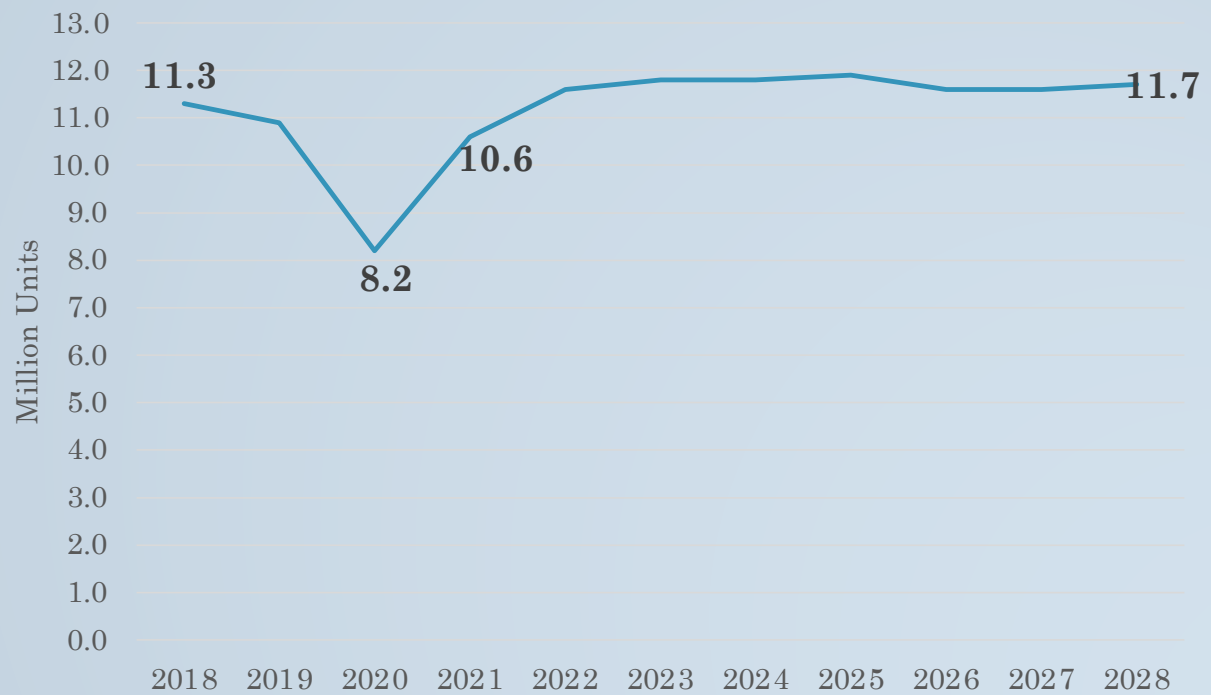
Here's a nice sentiment to share with a loved one: Most greeting cards are still manufactured in the US of A. Hallmark's home base has been Kansas City, Missouri, ever since 18-year-old J.C. Hall from Nebraska stepped off a train in K.C. with two shoeboxes of postcards and a dream. Hallmark is the largest manufacturer of greeting cards in the U.S., and manufactures most of those cards right across the river in Lawrence, Kansas. (Wrapping paper, ribbon and bows are primarily manufactured in Leavenworth, Kansas.) In 2019, Hallmark employed 5,200 people in the Kansas City area, all of whom have no excuse for forgetting to send a card on Mother's Day.

# Industry Performance (Revenue, 2013-2026)

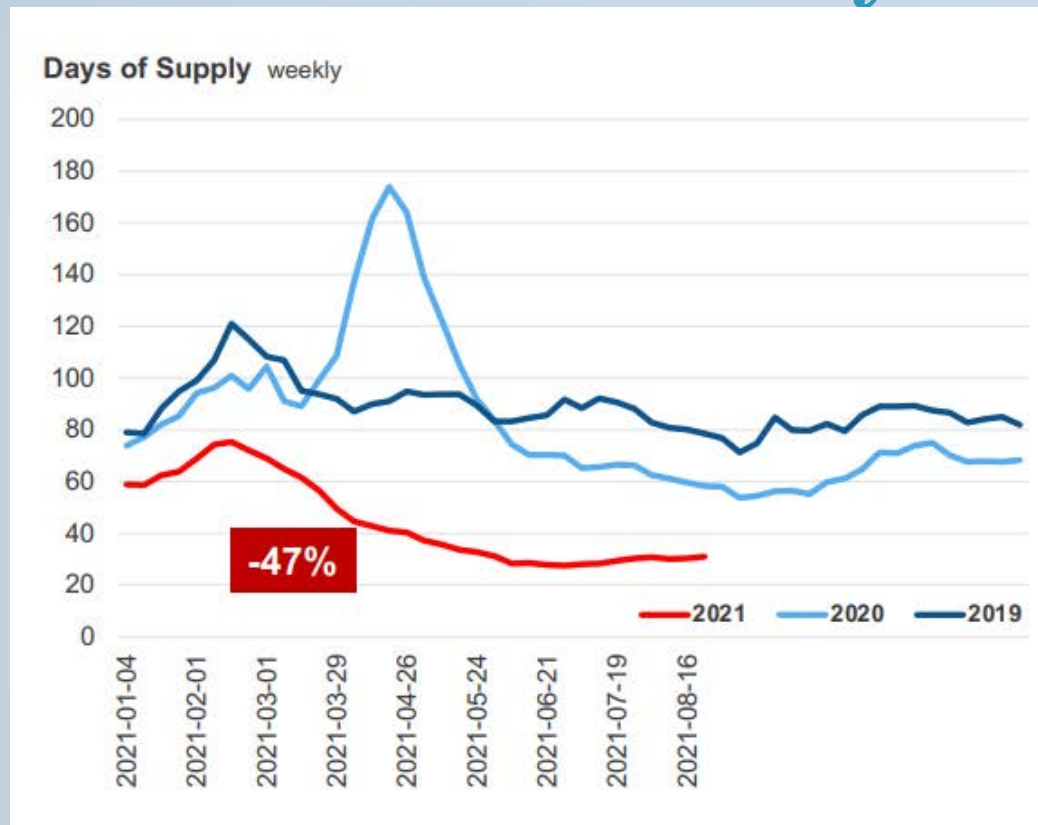


# Production

**Historical Average:**  
10.5-11.5 million  
units per year

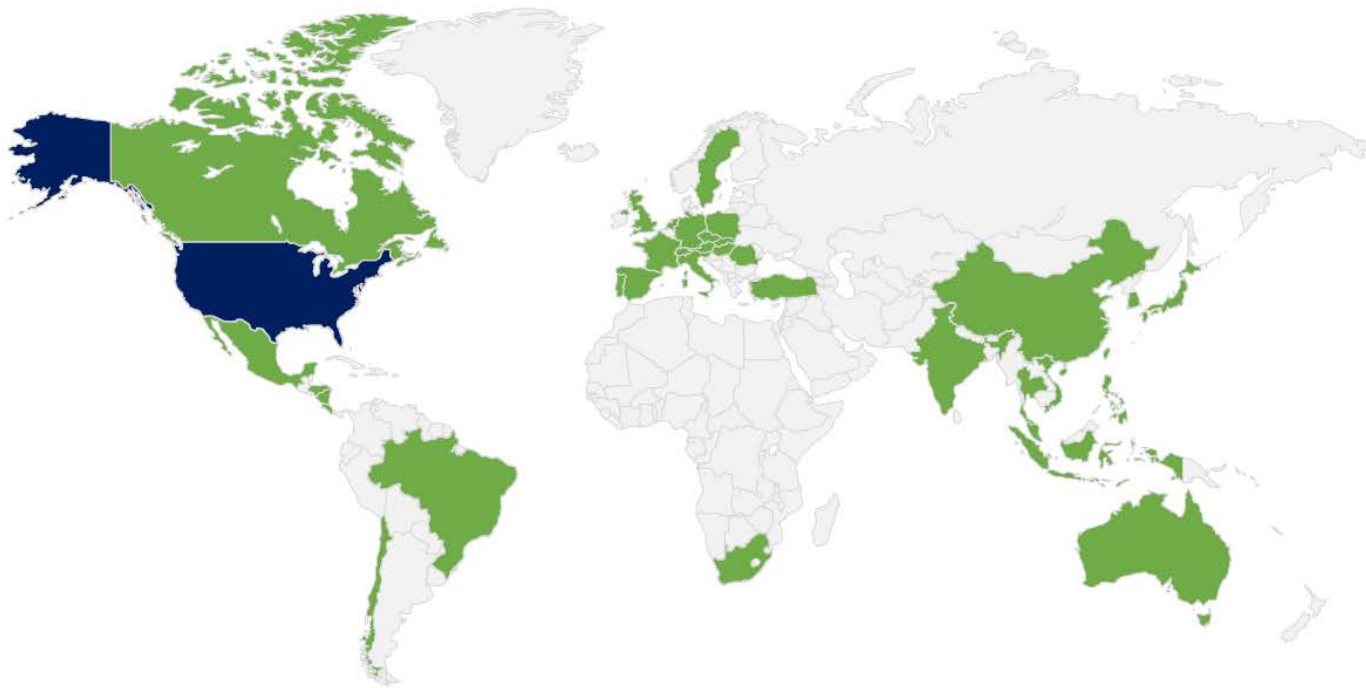


# New Vehicle Inventory



**60 days**  
supply is  
considered  
normal

# U.S. Automotive Parts Imports Sources

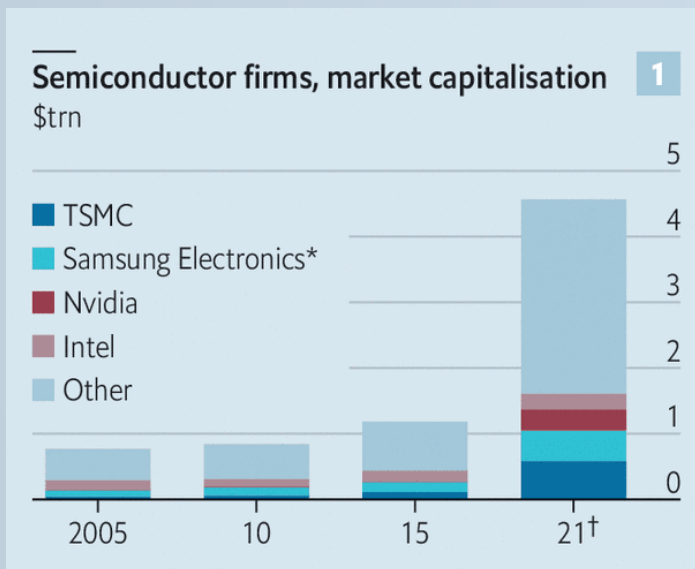


Countries in Green account for 99% of all U.S. auto parts imports

70% of U.S. parts imports from 4 countries:  
Mexico (39%)  
Canada (11%)  
China (10%)  
Japan (10%)

# The Chip Dilemma

- Low margins for chip manufacturers
- Stringent requirements by auto industry
- Redistribution of Design and Manufacturing



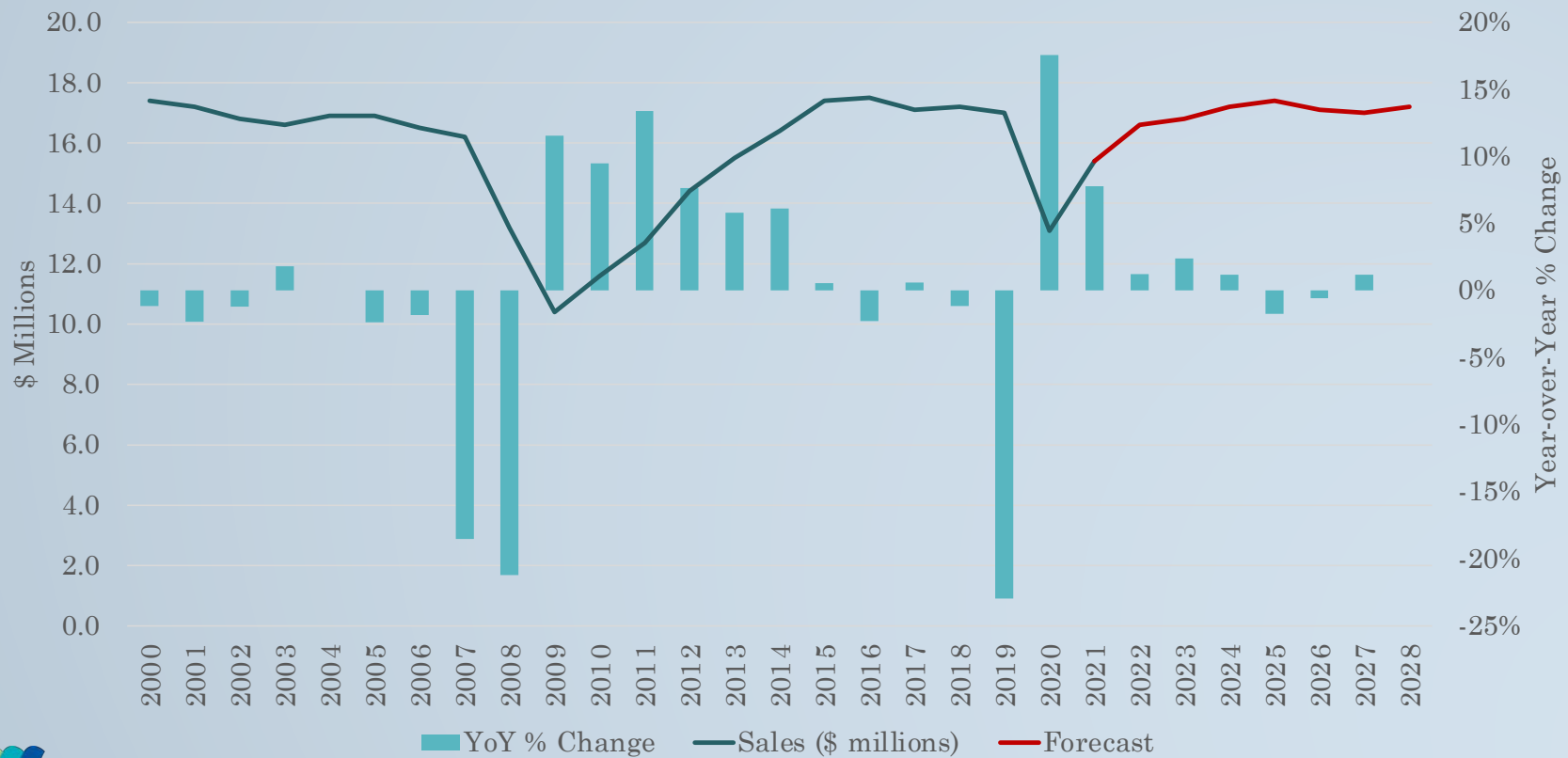
Source: The Economist, Intel



# Sales

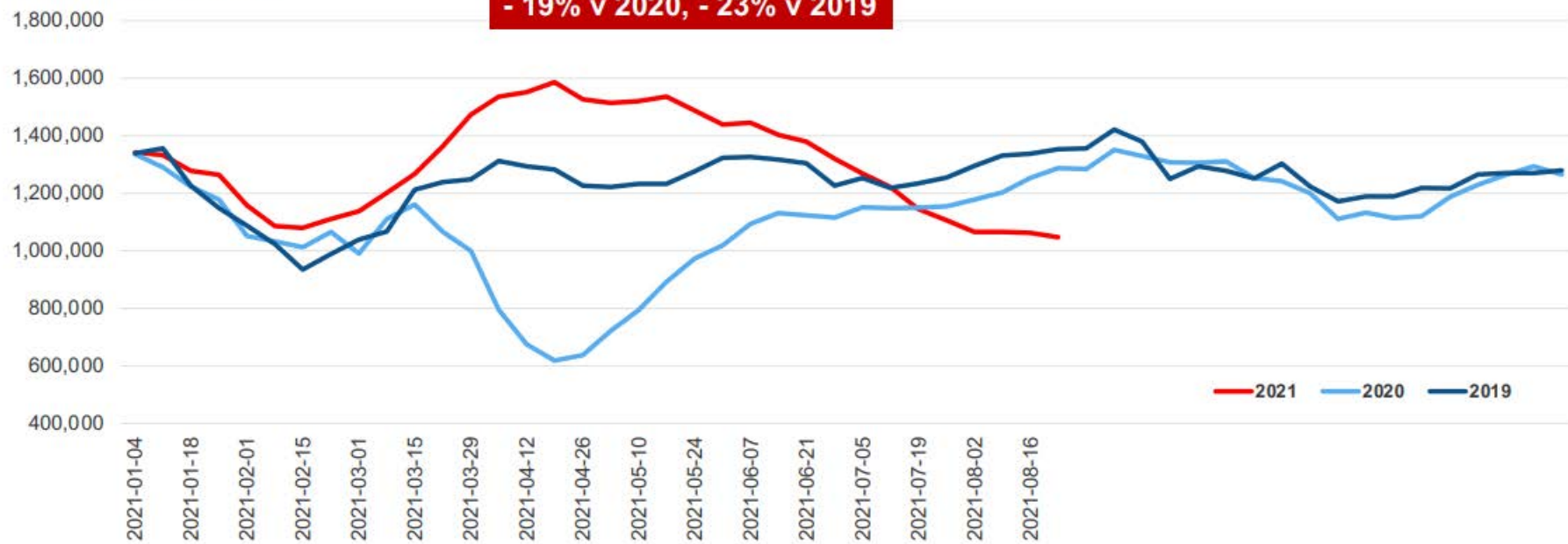
# Sales & Sales Forecast

**\$15.5M**  
2021 Sales  
Forecast



# New Vehicle Rolling Sales

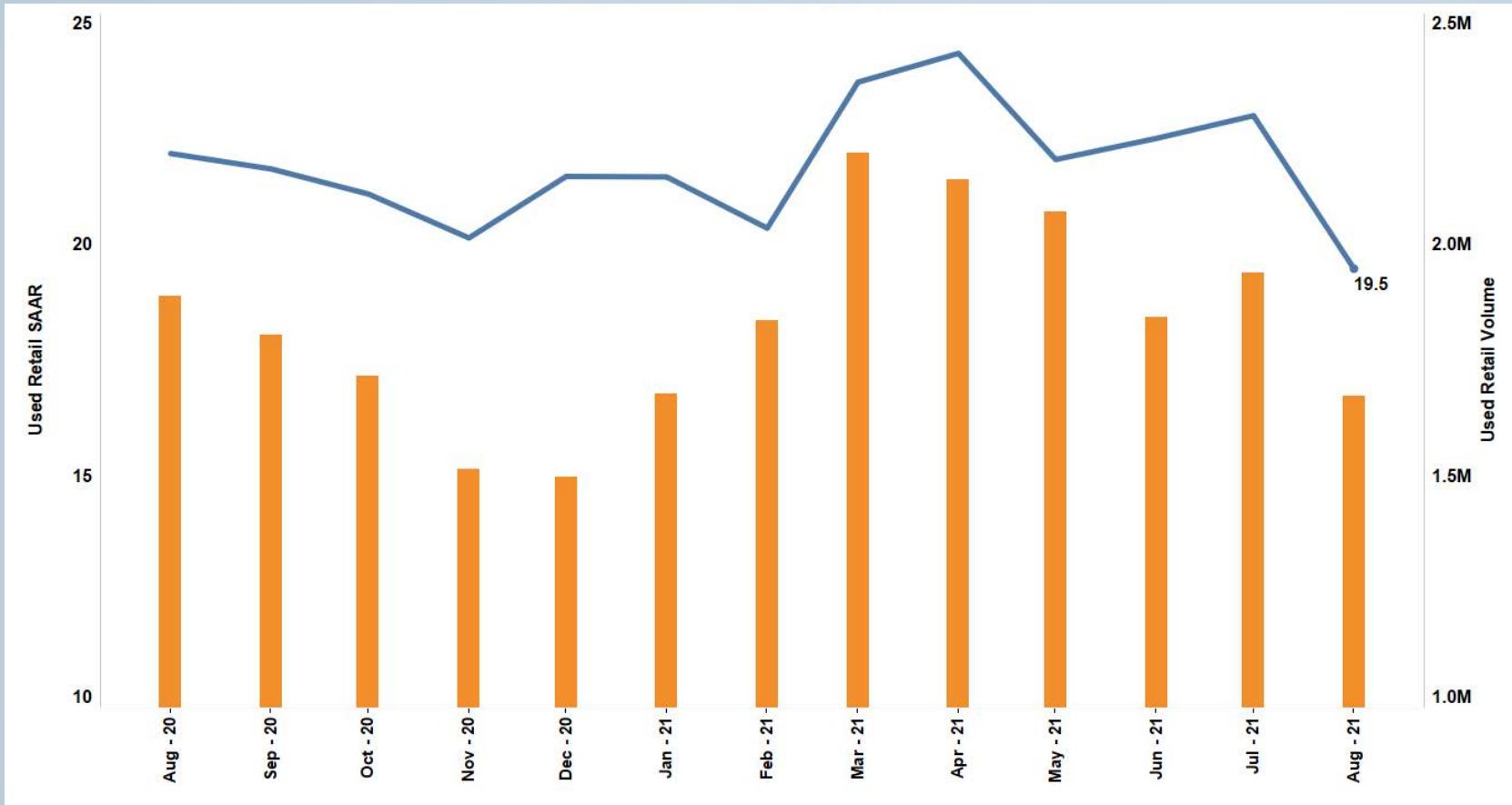
30-Day Retail Sales weekly



# Sales by Brand

Brand	YTD 2021	Versus 2019	Versus 2020	YTD 2021 Share	Market Share % Change Versus 2020
Toyota	1,878,701	5.6%	29.4%	16.0%	1.5%
GM	1,794,200	-16.4%	1.5%	15.3%	-2.1%
Stellantis (FCA)	1,347,531	-18.9%	2.0%	11.5%	-1.0%
Hyundai/Kia	1,172,819	19.1%	32.8%	10.0%	1.6%
Honda	1,188,934	-1.4%	21.2%	10.1%	0.9%
Ford	1,334,118	-26.2%	-10.8%	11.4%	-2.6%
Nissan	791,940	-24.2%	20.7%	6.8%	0.6%
Subaru	462,594	-11.9%	6.0%	3.9%	-0.3%
VW	508,016	5.5%	28.5%	4.3%	0.4%
ALL BRANDS	11,724,870	-8.1%	13.0%	100.0%	0.0%

# Used Vehicle Retail Sales and Volume

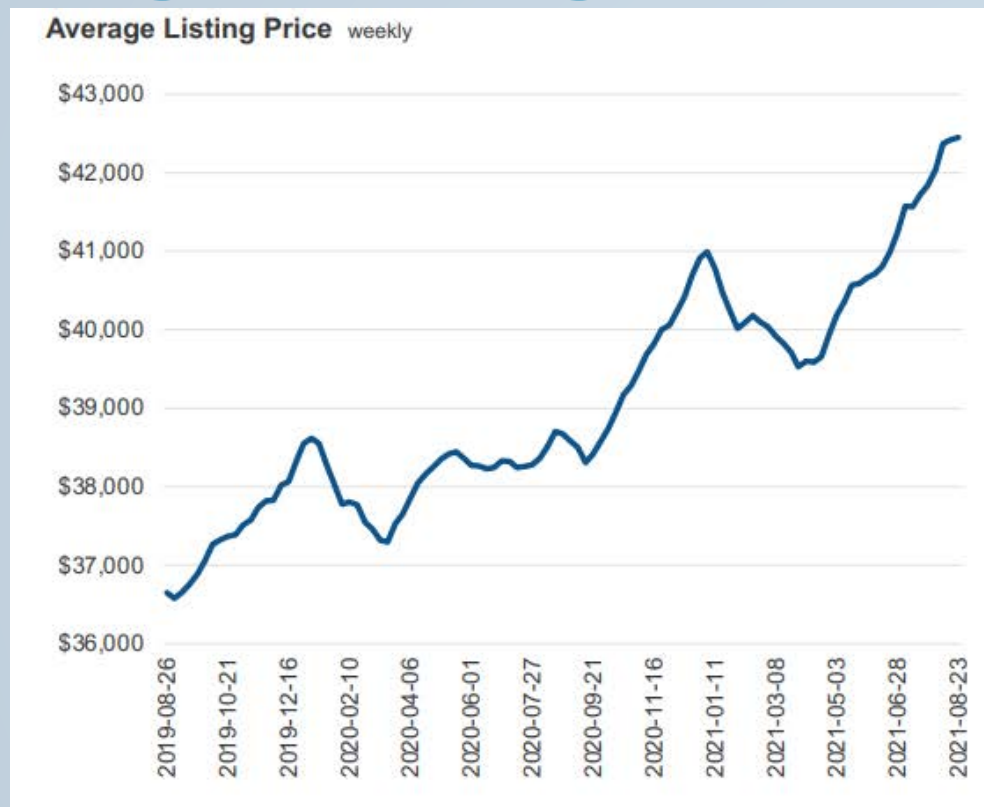


2021  
Sales  
Forecasts:

**\$15.5M**  
New Car  
Sales

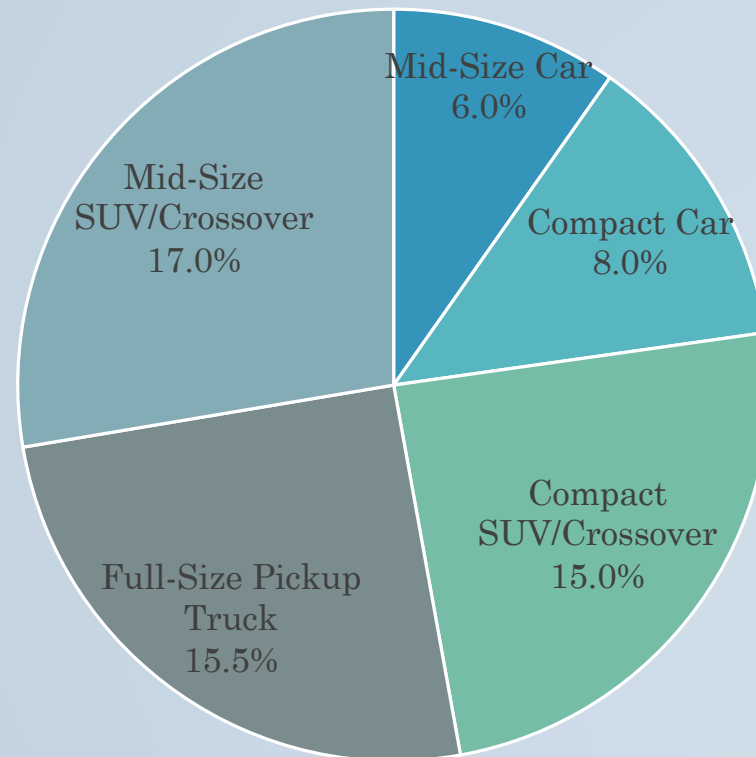
**\$39.2M**  
Used Car  
Sales

# Average Listing Price



At a New Peak  
**\$42,000**

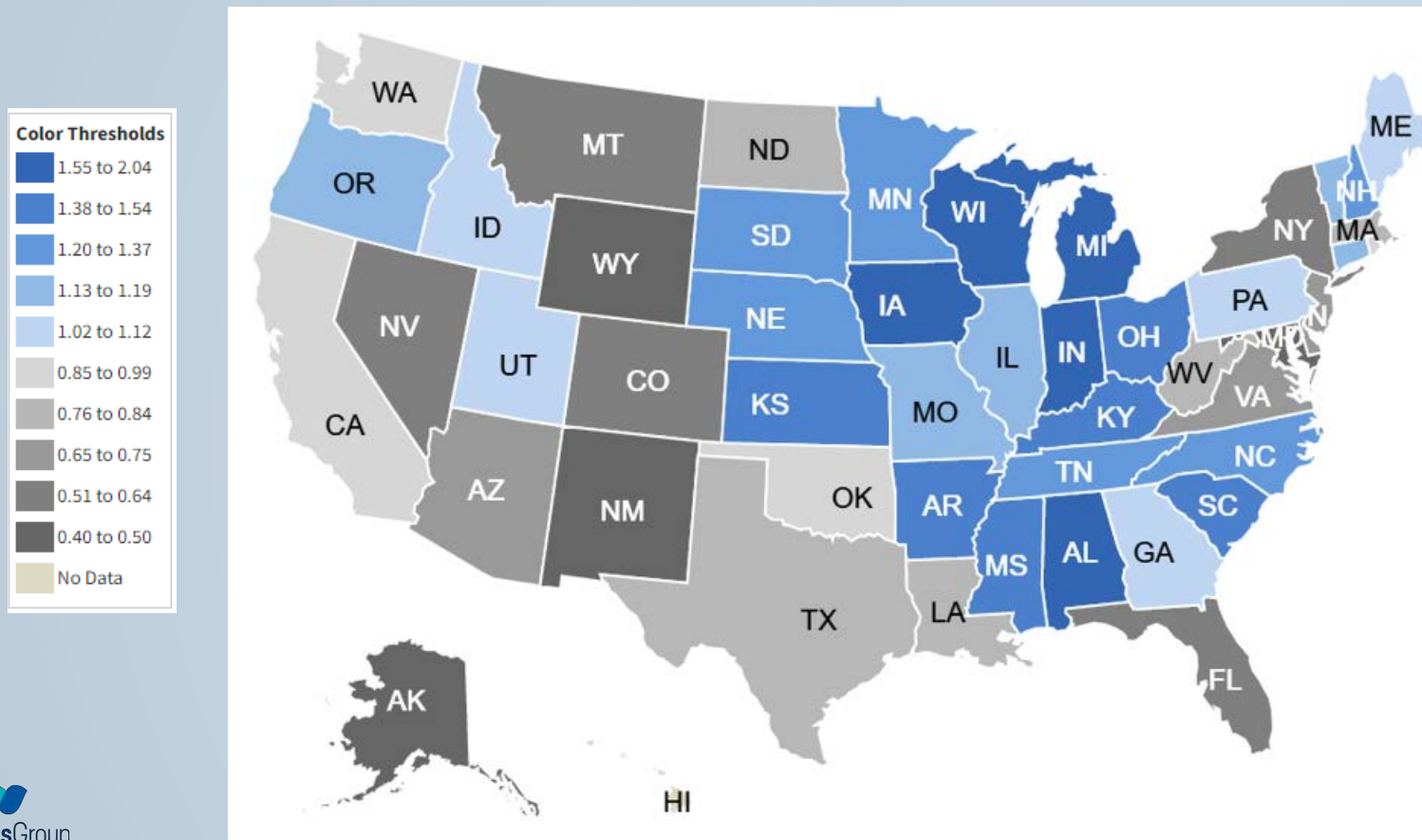
# Market Share by Segment



# Employment impact on Income Tax Revenue

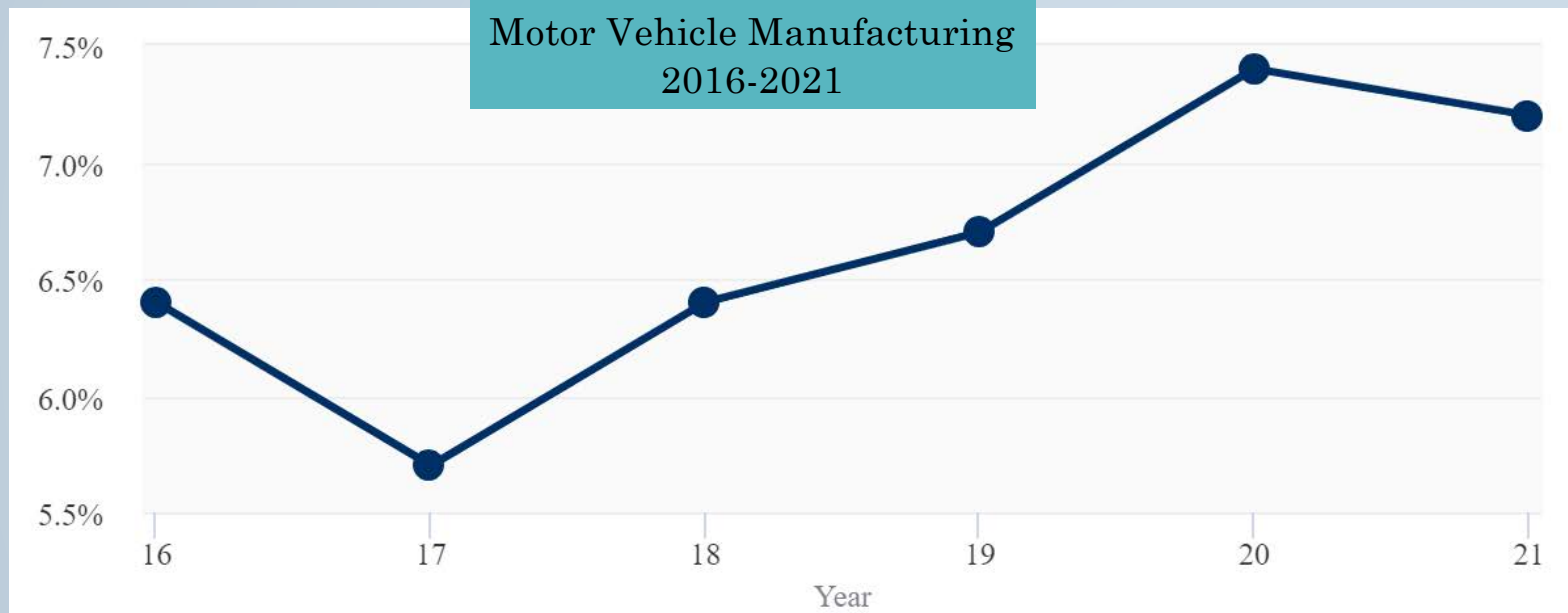


# Concentration of Manufacturing Employment, Q1 2021

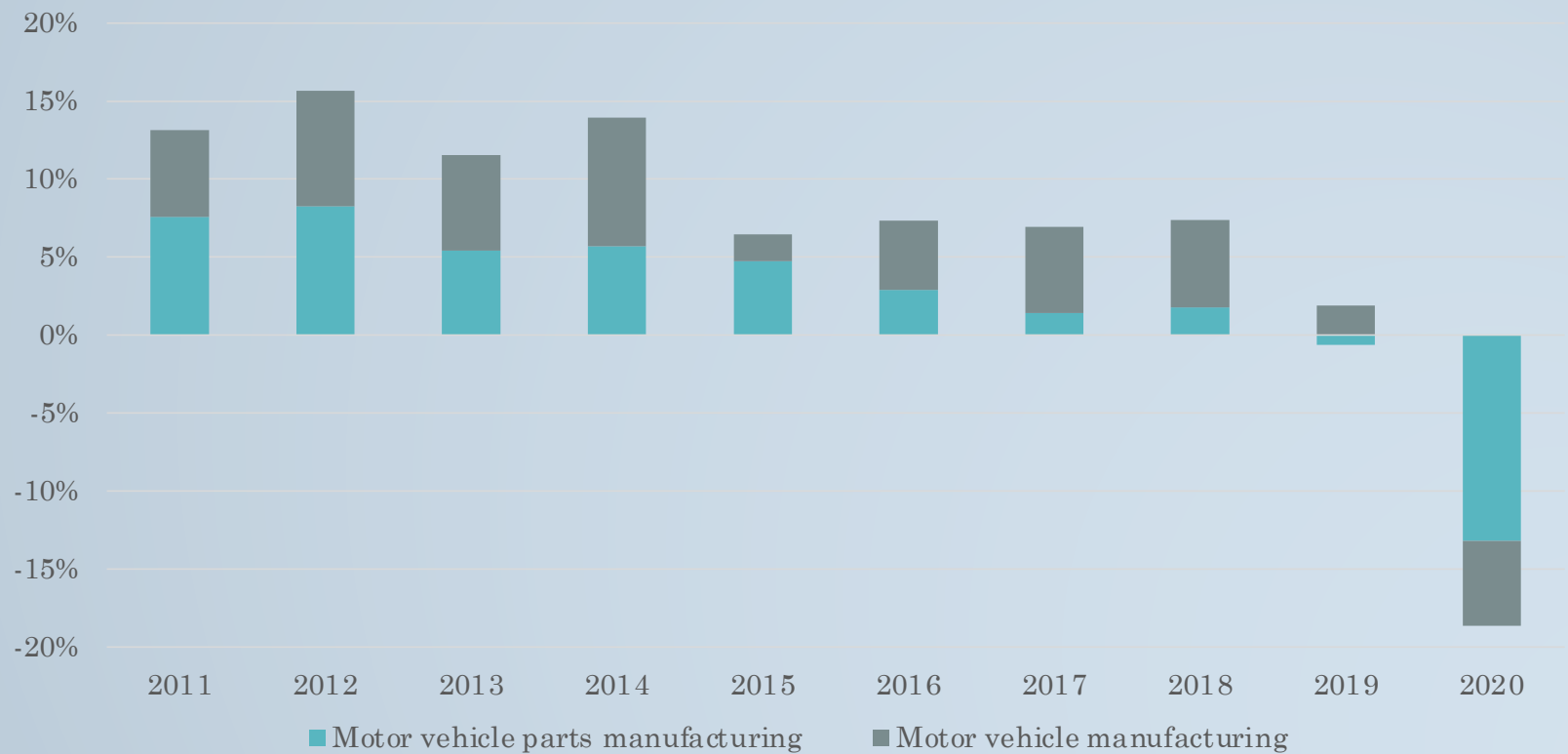


# Wages as a Share of Revenue

## The Great Resignation

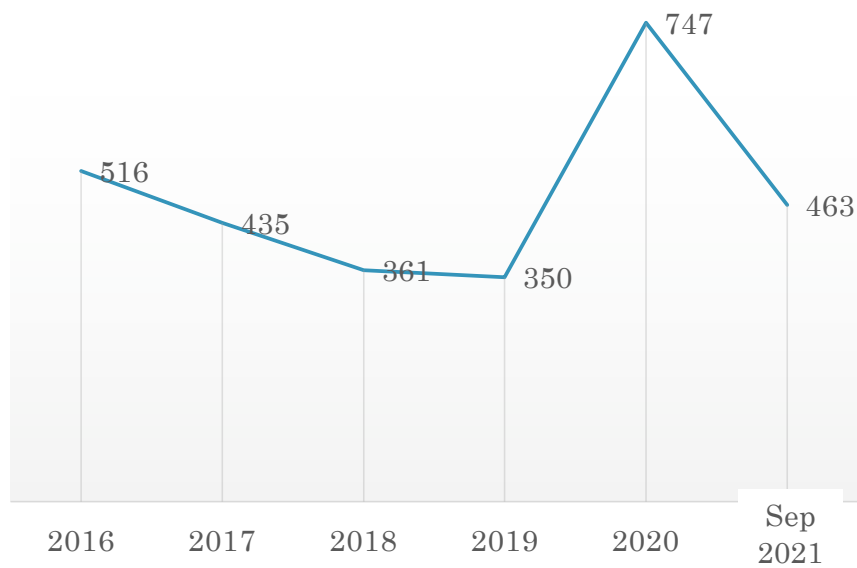


# Y-o-Y % Change in Employment

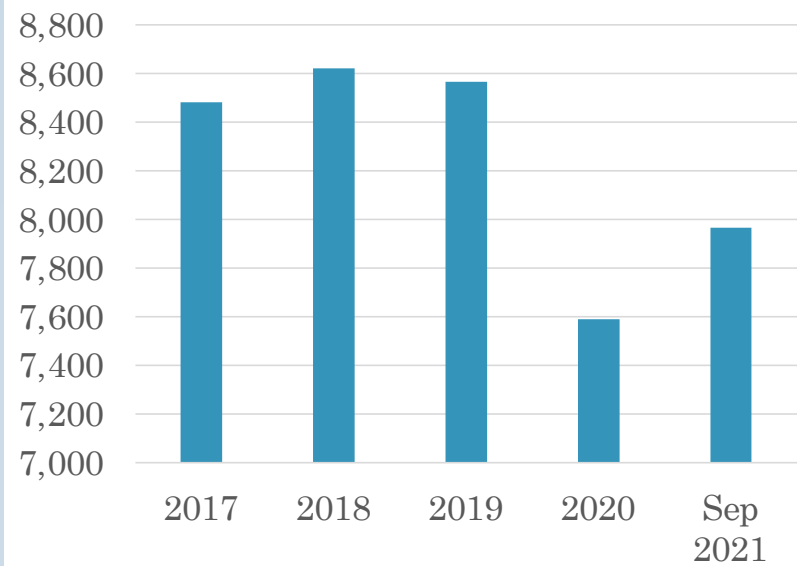


# Production Occupations

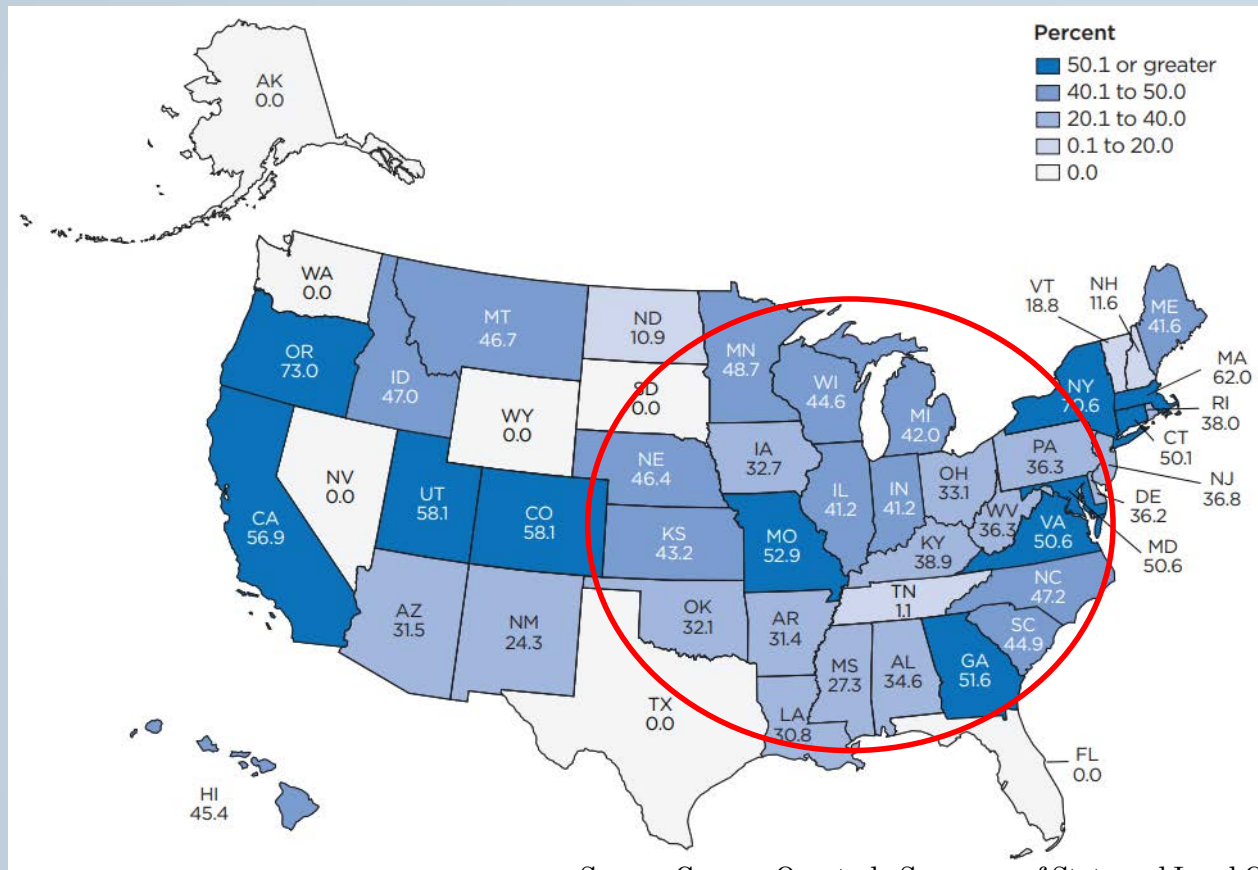
Production Occupations, Number of Unemployed (in 000s)



Production Occupations, Employed (in 000s)



# Individual Income Tax as a Percentage of Total State Taxes Collected, Q2 2021

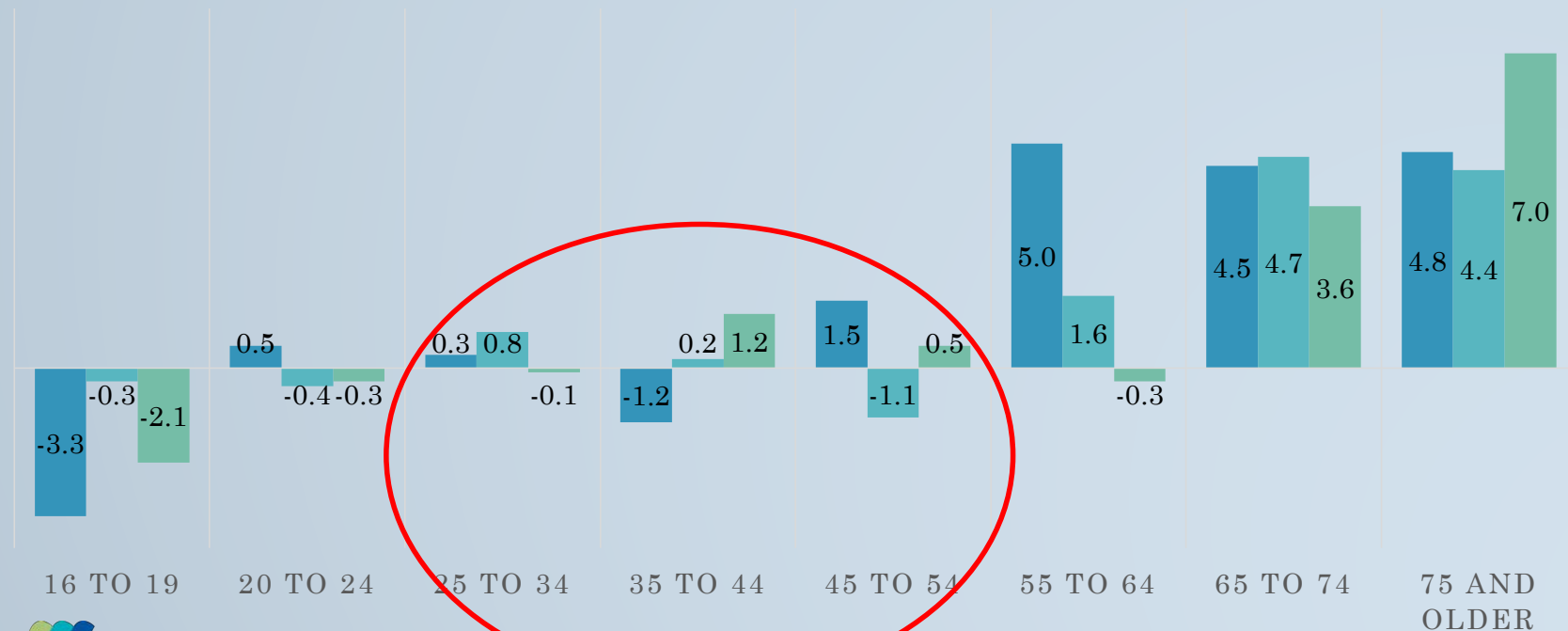


Source: Census, Quarterly Summary of State and Local Government Tax Revenue

# Labor Force Participation

AVERAGE ANNUAL GROWTH RATE (%)

■ 2000-10 ■ 2010-20 ■ 2020-30



# BEV impact on Motor Fuel Tax Revenue

# The Future of Transportation

Multi-modal  
Transportation



Vehicle  
Communications



Autonomous  
Vehicles



Electric  
Vehicles



- 1,000-1,400 chips / car
- \$427 chip value / car in 2020



# What are States doing?

Some of the many active states working to advance self-driving/autonomous vehicles include:

- Michigan
- Washington
- Colorado
- Rhode Island
- Virginia
- Pennsylvania
- Oregon
- Ohio
- North Carolina
- Nevada
- Minnesota
- Maryland
- Florida
- Delaware

Many states are working hard to promote the development of electric vehicles, connected and autonomous.

- Supporting research at universities
- Increasing workforce development programs and training
- Outreach and funding of startups – particularly in high-tech arenas
- Implementing testing friendly DOT programs
- Upgrading infrastructure, including charging
- Incentives for consumers, infrastructure

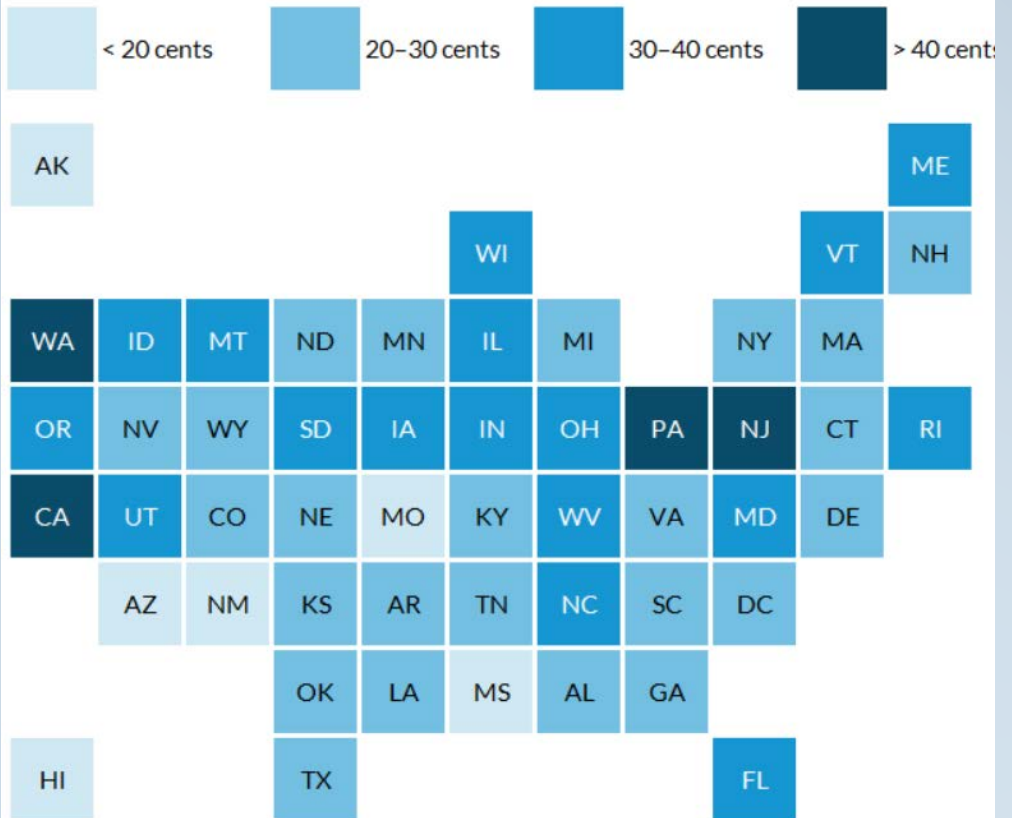


# Local Impact

State and local motor fuel tax revenue accounts for roughly 27% of highway and road spending.

## Motor Fuel Tax Rates by State

Cents per gallon, 2021



**Source:** Federation of Tax Administrators (FTA), Tax Rates (as of January 1, 2021).

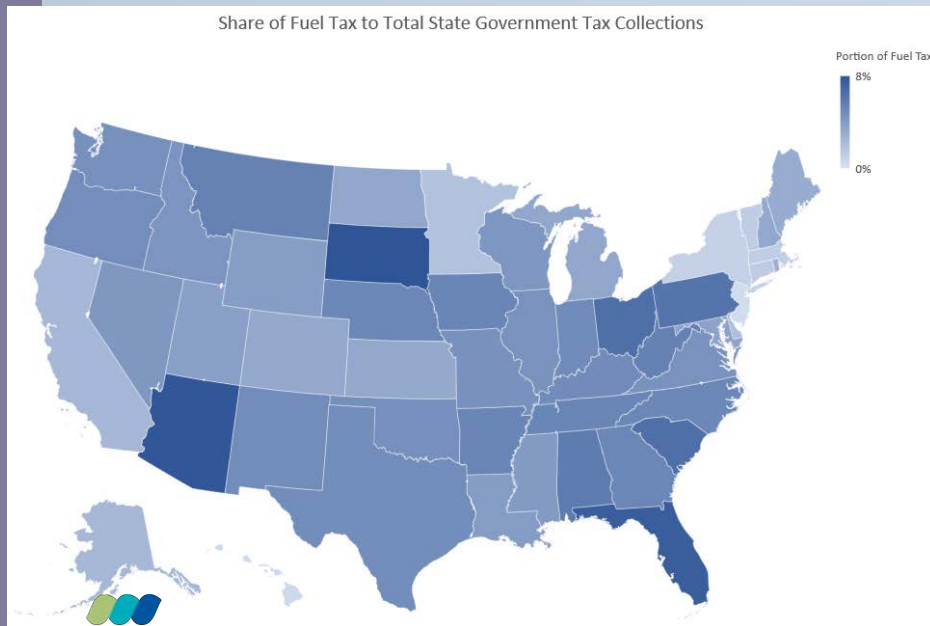
**Note:** Motor fuel tax rates include gasoline excise tax and related state fees, but not local taxes. Some states have different rates for diesel and gasohol.

# State Government Tax Collections

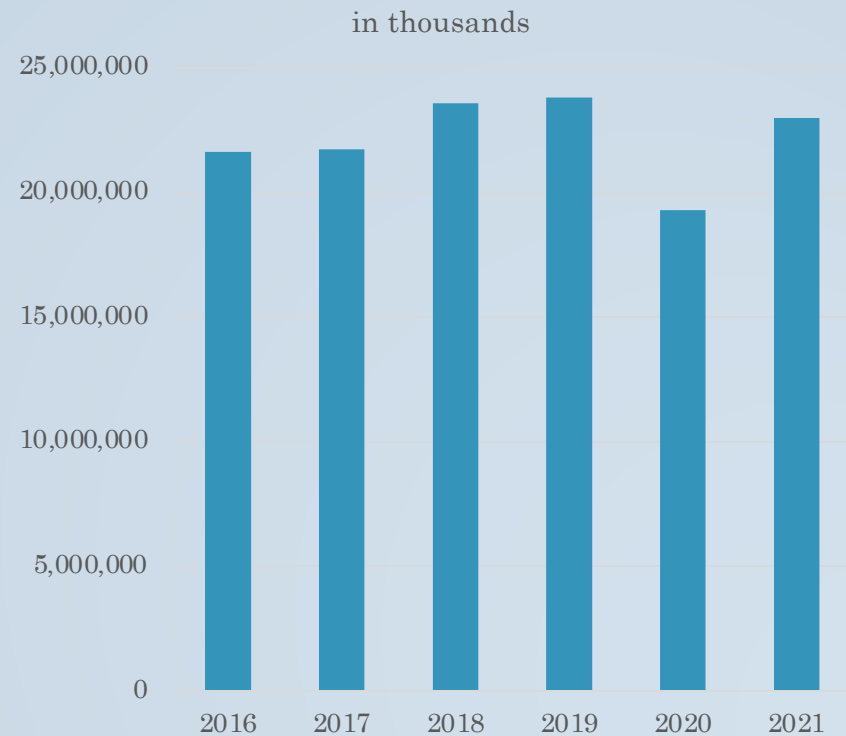
## Motor-related Taxes

### Share of Total Sales

- Motor fuel sales: **4.2%**
- Motor vehicle sales tax, registration and licensing: **2.6%**



### Motor-related Tax Collections (adjusted \$2021)



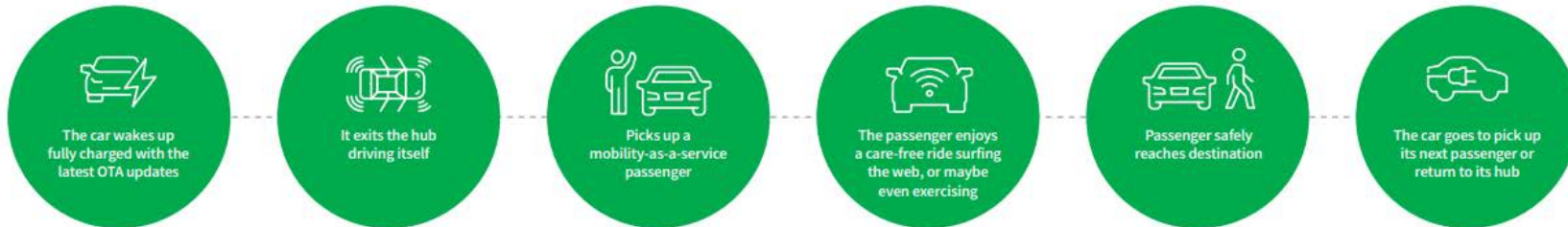
Source: Census, Quarterly Summary of State and Local Government Tax Revenue

# What can states do?

- Raise their gas tax rates
- Tie the gas tax rate to the price of gasoline
- Tie the gas tax rate to inflation or population
- Use another revenue source
- Tax miles traveled instead of gasoline

# Takeaways

- Affordability
- Technologies disrupting supply chains
- Labor will continue to be an issue



**350 million** vehicles on the road globally will have over-the-air updates capabilities in 2025

In 2030, **1 in 3** vehicles sold globally will feature an automated driving system

By 2030, nearly **6%** of all vehicle miles travelled globally could be via mobility services

**26%** of new vehicles sold globally in 2025 will offer 5G built-in connectivity

About **1.25 million** people died in road crashes globally in 2016\*

By 2030, over **40%** of alternative propulsion vehicles\* will feature charging capability

\*Association for Safe International Road Travel

\*Including MHEVs, HEVs, BEVs and FCEVs

# Thank You

Alivia Metts  
Principal Economist  
[ametts@themettsgroup.com](mailto:ametts@themettsgroup.com)  
(208) 277-6940

