

ORANGE COUNTY AUTO OUTLOOK™

3rd Quarter, 2021

Orange County New Retail Automotive Market Data - Retail Sales *Does Not Include Fleet Sales

SPECIAL REPORT

County New Vehicle Market Likely to Drop 19% in 4Q '21 Due to Supply Constraints

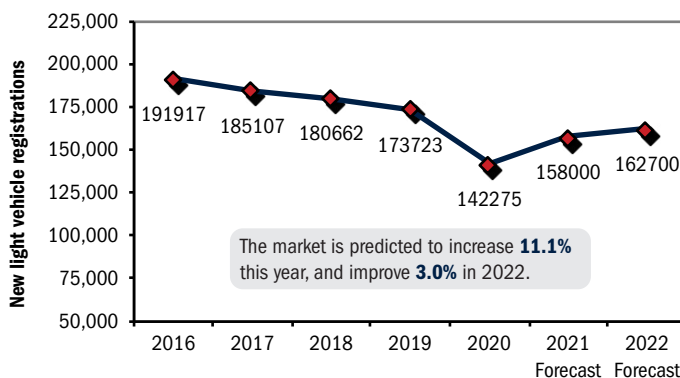
The chip shortage and other supply-related bottlenecks have turned the auto industry upside down. For most of the past 50 years, here's how it worked: key economic factors would dictate the level of demand in the marketplace, and the manufacturers would produce more than enough vehicles to accommodate demand. Most of the time, **supply exceeded demand**.

This was clearly not the case for the second half of this year, and likely lasting well into 2022. **Demand is significantly higher than supply** and sales levels will be determined based on how many vehicles can be produced. Pinpointing production volume is a complex puzzle impacted by several inter-related pieces: the chip shortage, COVID-induced labor cutbacks, tight supplies of other key components, and transportation logistics. Even if it was possible to accurately predict production, it's not feasible to directly link this to county new vehicle sales.

As a result, a different forecasting technique is needed. One that relies more on macro trends, and less on county economic factors. The most salient indicator to gauge the market is the seasonally adjusted annual rate of sales for the U.S. (SAAR). It's a top-line number, recognized across the industry, that is used as a barometer to formulate consensus on where the market is headed. The sidebar to the right presents an analysis that translates the anticipated SAAR into an equivalent level of registrations in the county. According to the baseline forecast, registrations will increase by 11.1% for all of this year, and are likely to improve again in 2022.

There is a **silver lining** to the recent slowdown in sales. As discussed in the previous release of Auto Outlook, key pillars of demand for new vehicles are bullish. Affordability is strong, and consumers have an intense need and desire to purchase new vehicles. The supply-related issues will pull sales well below anticipated levels, but most of these purchases will occur in the future. When supply issues abate, pent up demand will give a boost to the market for an extended period.

Annual Trend in County Market



The graph shows annual new retail light vehicle registrations from 2016 thru 2020 and Auto Outlook's projections for all of 2021 and 2022. Source for historical data: AutoCount data from Experian.

Outlook for Orange County new vehicle market



Forecast for county new retail registrations

Time Period	Forecast Scenarios		
	Baseline	Alternative Downside	Alternative Upside
4Q 2021 regs.	31,223	28,523	33,923
% change vs. 4Q '20	-18.6%	-25.6%	-11.5%
2021 annual regs.	158,000	155,300	160,700
% change vs. 2020	11.1%	9.2%	13.0%
2022 annual regs.	162,700	146,900	174,300
% change vs. 2021	3.0%	-5.4%	8.5%

Review of forecast methodology

- Demand will **not** be a primary driver for the county new vehicle market for perhaps the next 15 months.
- The level of sales will be dictated by production. A tangible indicator of how production will translate into county new vehicle registrations is the U.S. seasonally adjusted annual rate of sales (SAAR).
- The SAAR at the end of 3Q '21 was roughly 12.5 million units.
- Based on Auto Outlook's analysis of sales trends in the county market, a U.S. SAAR of 12.5m units in Q4 '21 would be equivalent to **31,223** new retail registrations in the county (shown as "Baseline" in above table).
- This would bring total registrations for all of 2021 to **158,000** units, up **11.1%** from 2020.
- Most projections for U.S. new vehicle sales in 2022 are in the vicinity of 15.4 million units. This would be equivalent to county registrations of **162,700** units next year, a **3.0%** increase from 2021.
- Due to the elevated uncertainty primarily related to the severity and duration of vehicle supply disruptions, the table above shows three different forecast scenarios: baseline, alternative downside, and alternative upside.

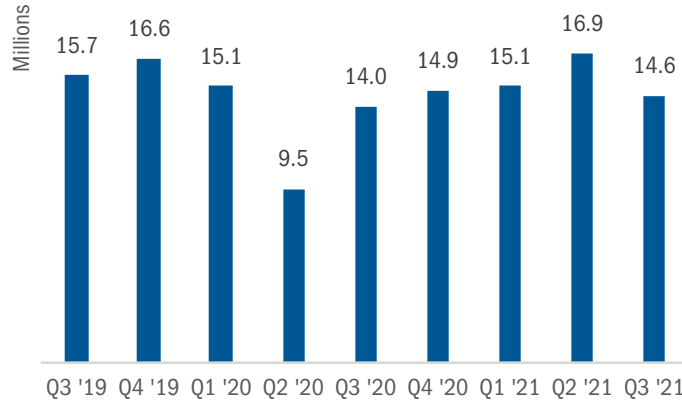


Orange County New Vehicle Market Dashboard



MARKET PERFORMANCE DURING PAST TWO YEARS

Orange County Quarterly Registrations
Seasonally Adjusted Annual Rate, Converted to Equivalent U.S. New Vehicle Market SAAR (millions of units)



Data Source: AutoCount data from Experian.

The graph on the left provides an easily recognizable way to gauge the strength of the county market. It shows quarterly registrations based on a seasonally adjusted annual rate. These figures are then indexed to SAAR sales figures for the U.S. new vehicle market. So just like in the national market, when the quarterly SAAR is above 17 million units, the county market is strong, 15 million is about average, and below 13 million is weak. Quarterly registrations in the county reached a U.S. equivalent level of 16.9 million units in the Second Quarter of 2021 and fell to 14.6 million in the Third Quarter as inventories plummeted.



COUNTY MARKET VS. U.S.

YTD 2021 thru September
% Change In New Retail Market vs. Year Earlier

Orange County
UP 22.0%

U.S.
UP 13.3%

Inventory issues had minimal impact on new light vehicle registrations for most of the first nine months of this year. And up until that time, the county market posted a larger gain than the U.S. Registrations will trail year-earlier levels for the remainder of the year, however.

Source for county registrations: AutoCount data from Experian. Source for U.S. data: Automotive News. U.S. figures include fleets.

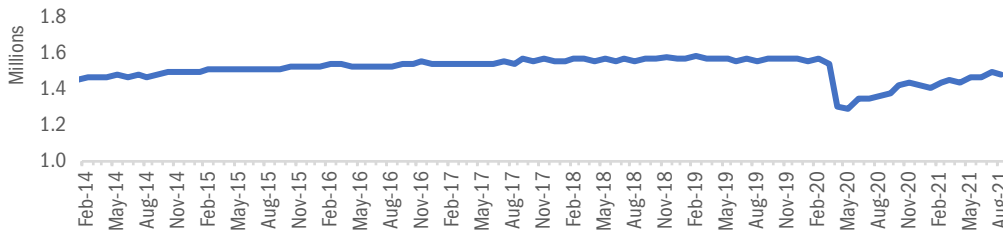
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Orange County New Vehicle Market Dashboard



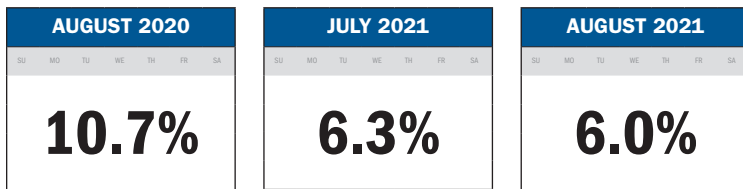
TRACKING ECONOMIC INDICATORS

Total Employment in Orange County



Total employment in the county continued to drift slightly higher during the summer of 2021. The unemployment rate was 6% in August. Consumer sentiment has moved lower due to inflationary pressures and concerns about the pandemic. Household net worth has hit record highs, which should provide a boost to new vehicle sales when supply issues abate.

Monthly Unemployment Rates in Orange County



Average Hourly Earnings for All Workers in County - Aug. 2021



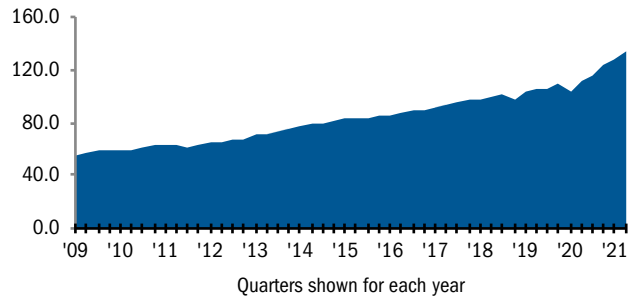
University of Michigan Consumer Sentiment (U.S.)



10 year high - 101.4 (Mar. 2018)
12 month high - 88.2 (Apr. 2021)
Most recent - 72.8 (Sep. 2021)
10 year low - 59.4 (Sep. 2011)

Key Values During Past 10 Years

Household Net Worth Trillions of \$ (U.S.)

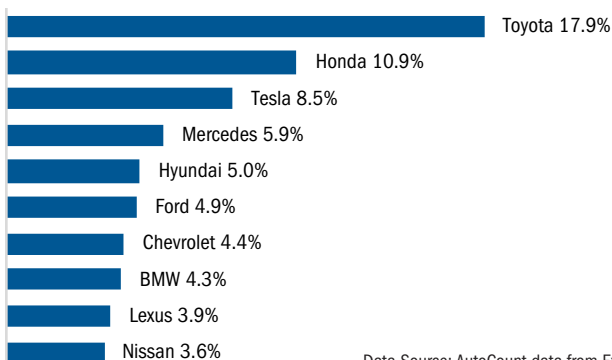


Sources: Bureau of Labor Statistics, University of Michigan, and Federal Reserve.



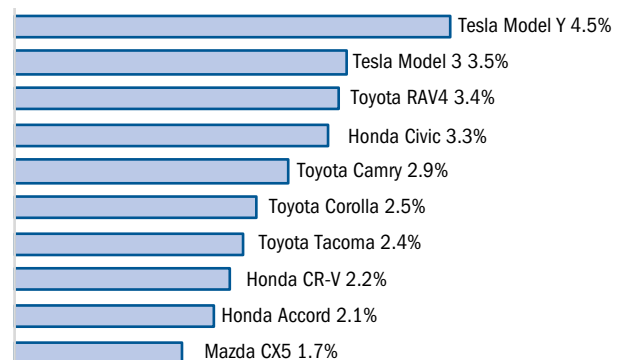
TOP TEN RANKINGS IN COUNTY MARKET

Market Share for Top Ten Selling Brands in County Market YTD 2021 thru September



Data Source: AutoCount data from Experian.

Market Share for Top Ten Selling Models in County Market YTD 2021 thru September

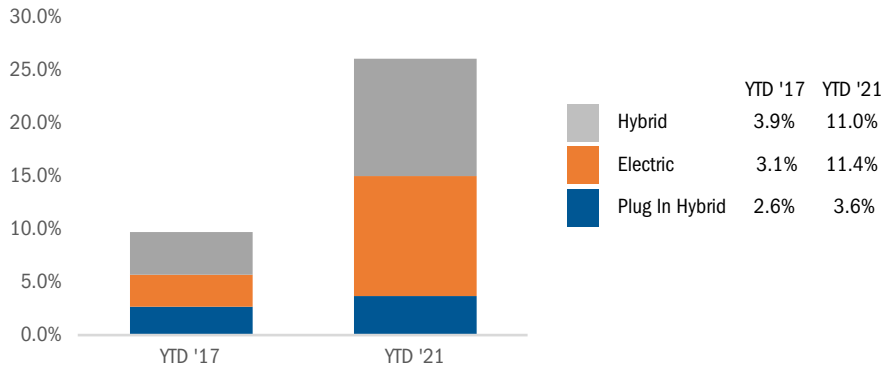


Three Long Term Trends in Orange County New Vehicle Market

Trend...	The numbers...	Primary conclusion...
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Estimated Alternative Powertrain Share*-YTD '17 and '21, thru Sept.

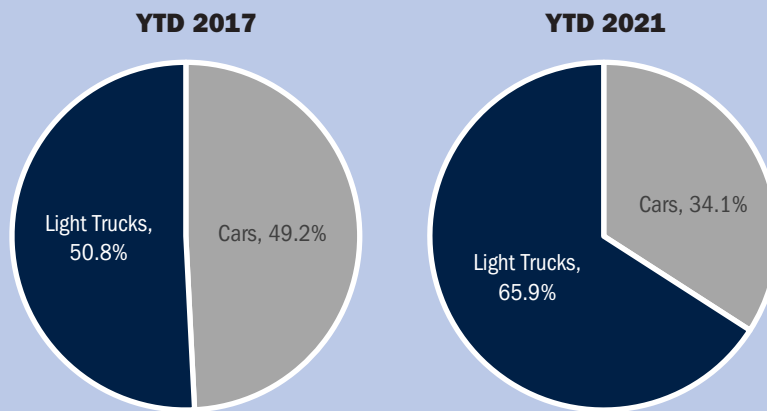
Alternative Powertrains



Hybrid vehicle market share in the county has increased by 7.1 share points during the past four years. Electric vehicle share was up 8.3 points.

Light Truck and Passenger Car Share - YTD '17 and '21, thru Sept.

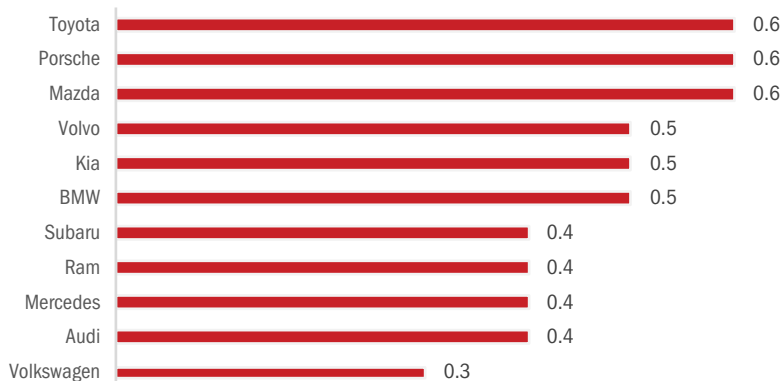
Light Trucks



Light truck market share increased to 65.9% during the first nine months of 2021, up 15.1 points from 2017.

Brands with Largest Market Share Increases - YTD '17 to YTD '21

New Vehicle Brands



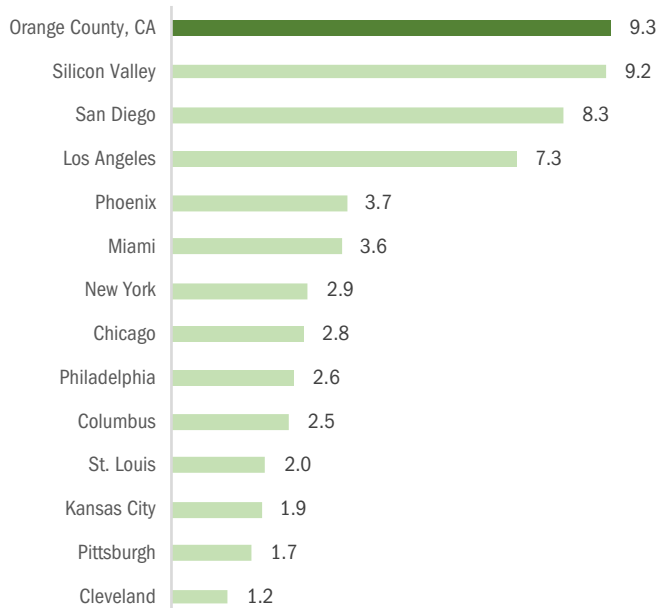
Six brands had market share increases of 0.5 of a point or higher: Toyota, Porsche, Mazda, Volvo, Kia, and BMW.

Data Source: AutoCount data from Experian. *Registrations by powertrain for vehicles equipped with multiple engine types were estimated by Auto Outlook. The estimates are based on model registrations compiled by Experian, and engine installation rates collected from other sources. The graph above showing largest market share increases excludes Tesla, since the Model 3 was introduced during 2017.

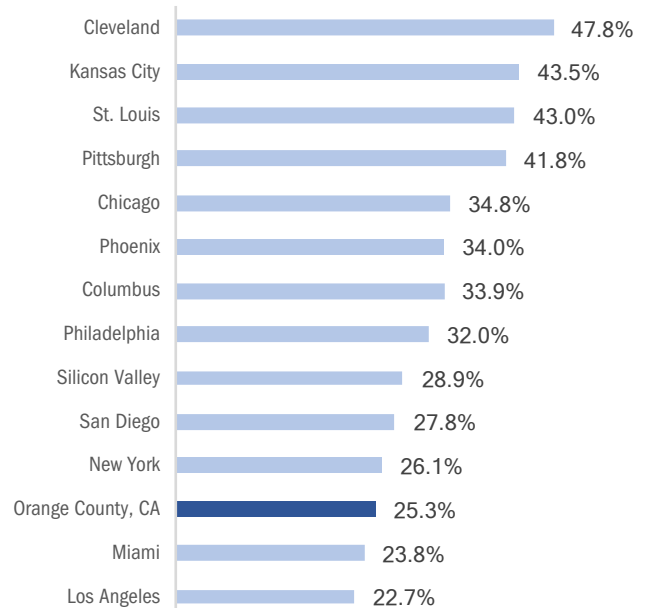
Comparison of Selected Metro Area Markets

The graphs and table below compare three primary indicators for selected metro area markets: change in electric and plug in hybrid vehicle market share between 2017 and this year, domestic brand market share, and the top five selling models during the first nine months of this year. Orange County was ranked first out of the 14 markets for growth in electric/plug in hybrid market share, and 12th for domestic brand share.

Growth in Combined Electric/Plug In Hybrid Vehicle Market Share 2017 to 2021 (YTD thru Sept.)



Domestic Brand Market Share YTD 2021 thru September



Note: registrations by powertrain for vehicles equipped with multiple engine types were estimated by Auto Outlook. The estimates are based on model registrations compiled by Experian, and engine installation rates collected from other sources. Domestic brands consist of vehicles sold by GM, Ford, Stellantis (excluding Alfa and FIAT), and Tesla. Data Source: AutoCount data from Experian.

Top Five Selling Models in Selected Metro Area Markets - YTD 2021 thru September

Chicago		Cleveland		Columbus		Denver		Kansas City	
Model	Share	Model	Share	Model	Share	Model	Share	Model	Share
Honda CR-V	3.7	Ram Pickup	5.4	Honda CR-V	5.4	Ram Pickup	3.6	Ford F-Series	4.4
Toyota RAV4	2.6	Ford F-Series	3.6	Honda Civic	4.0	Toyota RAV4	3.4	Ram Pickup	3.7
Chevrolet Equinox	1.9	Honda CR-V	3.1	Chevrolet Silverado	3.0	Ford F-Series	3.2	Honda CR-V	3.3
Ford F-Series	1.8	Chevrolet Silverado	3.0	Ford F-Series	2.8	Honda CR-V	2.9	Chevrolet Silverado	3.1
Honda Civic	1.8	Chevrolet Equinox	2.7	Ram Pickup	2.4	Toyota 4Runner	2.8	GMC Sierra	2.3
Los Angeles		Miami		New York City		Orange County, CA		Philadelphia	
Model	Share	Model	Share	Model	Share	Model	Share	Model	Share
Honda Civic	4.4	Toyota Corolla	3.7	Honda CR-V	3.6	Tesla Model Y	4.5	Honda CR-V	3.2
Toyota Camry	3.5	Toyota RAV4	3.2	Jeep Grand Cherokee	3.0	Tesla Model 3	3.5	Chevrolet Silverado	3.1
Toyota RAV4	3.3	Toyota Camry	2.9	Nissan Rogue	2.8	Toyota RAV4	3.4	Toyota RAV4	2.9
Tesla Model Y	3.0	Honda Civic	2.5	Toyota RAV4	2.8	Honda Civic	3.3	Ram Pickup	2.6
Toyota Corolla	3.0	Honda CR-V	2.2	Toyota Highlander	2.3	Toyota Camry	2.9	Ford F-Series	2.6
Phoenix		Pittsburgh		San Diego		Silicon Valley		St. Louis	
Model	Share	Model	Share	Model	Share	Model	Share	Model	Share
Ram Pickup	3.8	Ram Pickup	4.2	Toyota RAV4	4.1	Tesla Model Y	6.7	Honda CR-V	3.2
Chevrolet Silverado	3.2	Ford F-Series	3.5	Honda Civic	3.4	Tesla Model 3	4.8	Ford F-Series	3.1
Ford F Series	2.9	Chevrolet Silverado	3.2	Tesla Model Y	3.4	Toyota RAV4	4.0	Chevrolet Silverado	3.1
Toyota RAV4	2.7	Honda CR-V	3.1	Toyota Tacoma	3.1	Honda Civic	3.1	Ram Pickup	2.6
Toyota Tacoma	2.6	Toyota RAV4	2.1	Tesla Model 3	2.8	Toyota Camry	3.0	Chevrolet Equinox	2.2

Data Source: AutoCount data from Experian. Note: figures for some areas are thru August of 2021.

BRAND SCOREBOARD

Toyota Registrations Increased by More Than 5,000 Units

The graph below presents a comprehensive picture of brands that are gaining (or losing) ground in the county market. It shows both the unit and percent change in registrations during the first nine months of this year versus a year earlier. Viewing both measures on the same graph provides a more clear-cut signal on how each brand is doing.



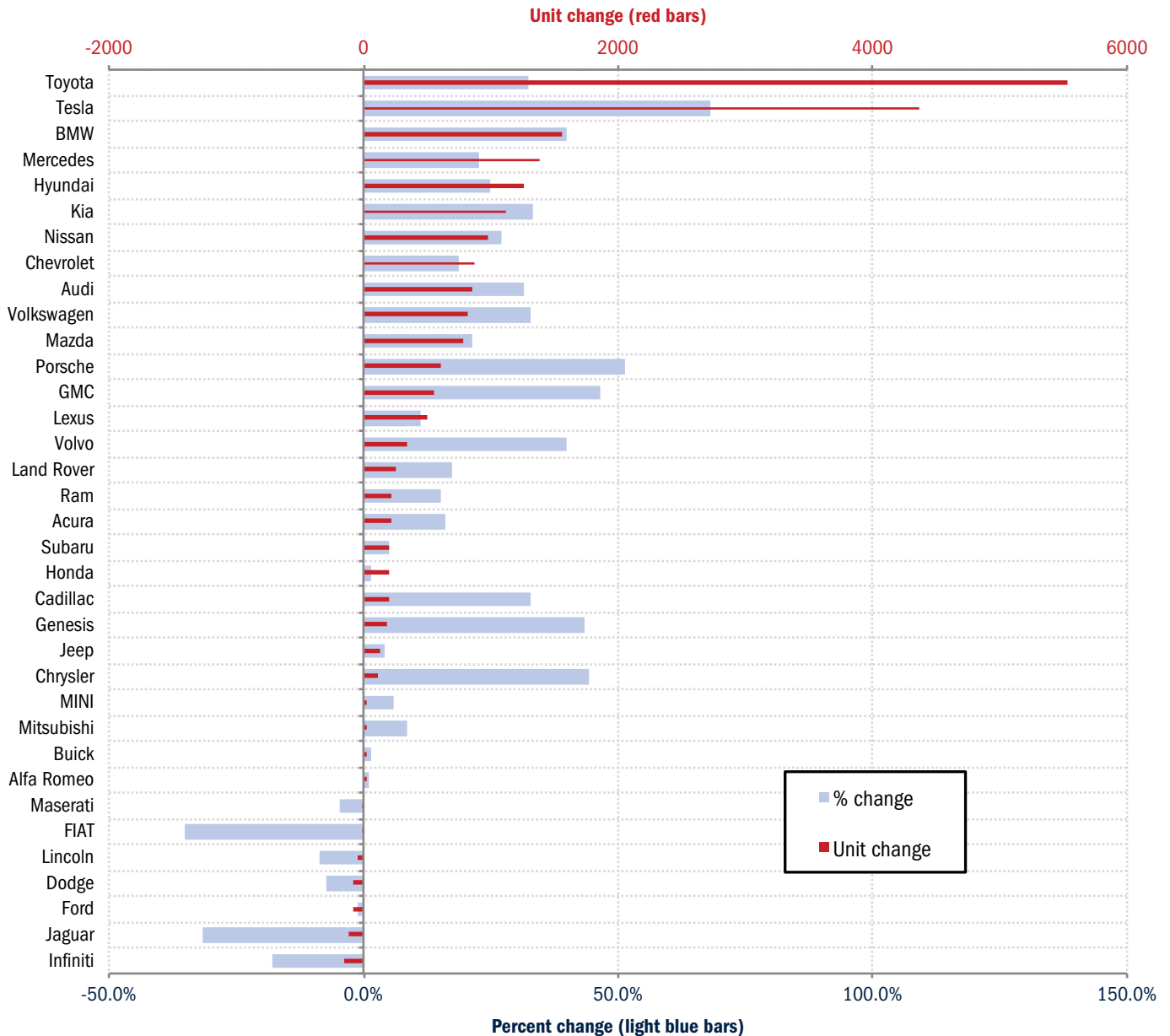
30 percent

12 brands had increases of greater than 30%: Tesla, Porsche, GMC, Chrysler, Genesis, BMW, Volvo, Kia, Volkswagen, Cadillac, Toyota, and Audi.

800 units

Ten brands had increases of greater than 800 units: Toyota, Tesla, BMW, Mercedes, Hyundai, Kia, Nissan, Chevrolet, Audi, and Volkswagen.

Change in New Retail Light Vehicle Registrations (YTD 2021 thru September vs. YTD 2020)



Source: AutoCount data from Experian.

COMPARISON OF ORANGE COUNTY AND U.S. MARKETS

Percent Gain In Orange County Market Exceeds U.S.

	Orange County Retail Market	U.S. Market
% change in registrations YTD 2021 thru September vs. YTD '2020	22.0%	13.3%
Car share of industry retail light vehicle market YTD 2021 thru September	34.1%	23.2%
Domestic brand share of industry retail light vehicle market YTD 2021 thru September	25.3%	40.3%

Brand	New Retail Registrations and U.S. New Vehicle Sales- YTD thru September				Market Share (YTD '21 thru September)		
	Orange County		U.S.		Orange	U.S.	Variance
	Regs.	% ch. vs. YTD '20	Sales	% ch. vs. YTD '20	County		
Acura	1,539	16.2%	126,939	32.7%	1.2	1.1	0.1
Alfa Romeo	253	1.2%	14,193	13.6%	0.2	0.1	0.1
Audi	3,530	31.5%	162,854	31.2%	2.8	1.4	1.4
BMW	5,452	40.0%	243,613	35.4%	4.3	2.1	2.2
Buick	230	1.3%	151,010	27.4%	0.2	1.3	-1.1
Cadillac	780	32.9%	95,946	10.8%	0.6	0.8	-0.2
Chevrolet	5,600	18.6%	1,137,766	-5.9%	4.4	9.7	-5.3
Chry Dodge Jeep Ram	6,350	6.4%	1,349,580	3.4%	5.0	11.5	-6.5
Chrysler	352	44.3%	74,139	-2.3%	0.3	0.6	-0.3
Dodge	985	-7.3%	175,361	-14.2%	0.8	1.5	-0.7
Jeep	3,296	3.9%	604,670	4.0%	2.6	5.1	-2.5
Ram	1,717	15.3%	495,410	11.7%	1.4	4.2	-2.8
Fiat	13	-35.0%	2,107	-41.0%	0.0	0.0	0.0
Ford	6,194	-1.3%	1,321,653	-7.0%	4.9	11.2	-6.3
Genesis	599	43.6%	34,320	204.1%	0.5	0.3	0.2
GMC	1,758	46.6%	381,518	8.0%	1.4	3.2	-1.8
Honda	13,805	1.5%	1,052,485	18.9%	10.9	8.9	2.0
Hyundai	6,346	25.0%	585,635	32.1%	5.0	5.0	0.0
Infiniti	666	-17.9%	47,603	-19.3%	0.5	0.4	0.1
Jaguar	262	-31.8%	12,232	-24.9%	0.2	0.1	0.1
Kia	4,468	33.3%	555,525	29.7%	3.5	4.7	-1.2
Land Rover	1,783	17.3%	59,800	14.3%	1.4	0.5	0.9
Lexus	4,959	11.2%	238,805	31.1%	3.9	2.0	1.9
Lincoln	402	-8.8%	65,962	-11.3%	0.3	0.6	-0.3
Maserati	148	-4.5%	5,915	32.4%	0.1	0.1	0.0
Mazda	4,403	21.5%	273,213	34.4%	3.5	2.3	1.2
Mercedes	7,460	22.8%	253,543	9.9%	5.9	2.2	3.7
MINI	388	6.0%	22,070	12.7%	0.3	0.2	0.1
Mitsubishi	192	8.5%	77,176	6.3%	0.2	0.7	-0.5
Nissan	4,622	27.1%	735,053	23.1%	3.6	6.2	-2.6
Porsche	1,811	51.3%	51,615	29.9%	1.4	0.4	1.0
Subaru	4,419	5.0%	462,802	6.0%	3.5	3.9	-0.4
Tesla	10,765	68.2%	235,700	65.2%	8.5	2.0	6.5
Toyota	22,698	32.2%	1,619,078	27.5%	17.9	13.8	4.1
Volkswagen	3,282	33.0%	290,694	25.6%	2.6	2.5	0.1
Volvo	1,176	40.0%	95,366	29.6%	0.9	0.8	0.1
Other	424	1.9%	10,670	24.6%	0.3	0.1	0.2

The two tables above provide a comparison of the Orange County and U.S. new light vehicle markets. *U.S. figures include fleet transactions
 Data Source for Orange County registrations: AutoCount data from Experian. Source for U.S. data: Automotive News.

Orange County New Retail Car and Light Truck Registrations												
	September			Third Quarter			YTD thru September			YTD Market Share (%)		
	2020	2021	% chg.	3Q '20	3Q '21	% chg.	YTD '20	YTD '21	% chg.	YTD '20	YTD '21	Chg.
MARKET SUMMARY												
TOTAL	14,437	11,081	-23.2%	36,896	39,292	6.5%	103,932	126,777	22.0%			
Cars	4,934	3,754	-23.9%	12,854	13,550	5.4%	38,741	43,216	11.6%	37.3	34.1	-3.2
Light Trucks	9,503	7,327	-22.9%	24,042	25,742	7.1%	65,191	83,561	28.2%	62.7	65.9	3.2
Domestic	3,274	2,632	-19.6%	9,180	9,581	4.4%	25,818	32,079	24.3%	24.8	25.3	0.5
European	2,778	2,241	-19.3%	7,225	7,909	9.5%	20,268	25,982	28.2%	19.5	20.5	1.0
Japanese	7,071	5,127	-27.5%	17,278	17,842	3.3%	48,999	57,303	16.9%	47.1	45.2	-1.9
Korean	1,314	1,081	-17.7%	3,213	3,960	23.2%	8,847	11,413	29.0%	8.5	9.0	0.5
BRAND REGISTRATIONS												
Acura	151	170	12.6%	421	541	28.5%	1,324	1,539	16.2%	1.3	1.2	-0.1
Alfa Romeo	18	24	33.3%	81	78	-3.7%	250	253	1.2%	0.2	0.2	0.0
Audi	357	258	-27.7%	911	953	4.6%	2,684	3,530	31.5%	2.6	2.8	0.2
BMW	501	552	10.2%	1,267	1,734	36.9%	3,893	5,452	40.0%	3.7	4.3	0.6
Buick	31	27	-12.9%	84	78	-7.1%	227	230	1.3%	0.2	0.2	0.0
Cadillac	73	53	-27.4%	207	197	-4.8%	587	780	32.9%	0.6	0.6	0.0
Chevrolet	743	353	-52.5%	1,681	1,508	-10.3%	4,723	5,600	18.6%	4.5	4.4	-0.1
C/D/J/R	893	516	-42.2%	2,216	1,780	-19.7%	5,967	6,350	6.4%	5.7	5.0	-0.7
Chrysler	32	15	-53.1%	88	46	-47.7%	244	352	44.3%	0.2	0.3	0.1
Dodge	141	55	-61.0%	326	248	-23.9%	1,063	985	-7.3%	1.0	0.8	-0.2
Jeep	476	292	-38.7%	1,225	1,003	-18.1%	3,171	3,296	3.9%	3.1	2.6	-0.5
Ram	244	154	-36.9%	577	483	-16.3%	1,489	1,717	15.3%	1.4	1.4	0.0
FIAT	2	1	-50.0%	5	4	-20.0%	20	13	-35.0%	0.0	0.0	0.0
Ford	867	516	-40.5%	2,118	1,492	-29.6%	6,275	6,194	-1.3%	6.0	4.9	-1.1
Genesis	46	81	76.1%	122	274	124.6%	417	599	43.6%	0.4	0.5	0.1
GMC	208	161	-22.6%	433	478	10.4%	1,199	1,758	46.6%	1.2	1.4	0.2
Honda	1,759	1,208	-31.3%	4,479	4,132	-7.7%	13,596	13,805	1.5%	13.1	10.9	-2.2
Hyundai	747	579	-22.5%	1,941	2,095	7.9%	5,078	6,346	25.0%	4.9	5.0	0.1
Infiniti	93	50	-46.2%	252	183	-27.4%	811	666	-17.9%	0.8	0.5	-0.3
Jaguar	41	15	-63.4%	125	62	-50.4%	384	262	-31.8%	0.4	0.2	-0.2
Kia	521	421	-19.2%	1,150	1,591	38.3%	3,352	4,468	33.3%	3.2	3.5	0.3
Land Rover	200	151	-24.5%	498	471	-5.4%	1,520	1,783	17.3%	1.5	1.4	-0.1
Lexus	704	477	-32.2%	1,631	1,574	-3.5%	4,459	4,959	11.2%	4.3	3.9	-0.4
Lincoln	77	33	-57.1%	164	84	-48.8%	441	402	-8.8%	0.4	0.3	-0.1
Maserati	16	14	-12.5%	38	58	52.6%	155	148	-4.5%	0.1	0.1	0.0
Mazda	576	475	-17.5%	1,437	1,592	10.8%	3,624	4,403	21.5%	3.5	3.5	0.0
Mercedes	846	578	-31.7%	2,344	2,118	-9.6%	6,075	7,460	22.8%	5.8	5.9	0.1
MINI	62	24	-61.3%	154	135	-12.3%	366	388	6.0%	0.4	0.3	-0.1
Mitsubishi	17	33	94.1%	50	83	66.0%	177	192	8.5%	0.2	0.2	0.0
Nissan	482	359	-25.5%	1,232	1,445	17.3%	3,636	4,622	27.1%	3.5	3.6	0.1
Porsche	199	155	-22.1%	468	551	17.7%	1,197	1,811	51.3%	1.2	1.4	0.2
Subaru	640	370	-42.2%	1,507	1,353	-10.2%	4,209	4,419	5.0%	4.0	3.5	-0.5
Tesla	382	973	154.7%	2,277	3,964	74.1%	6,399	10,765	68.2%	6.2	8.5	2.3
Toyota	2,649	1,985	-25.1%	6,269	6,939	10.7%	17,163	22,698	32.2%	16.5	17.9	1.4
Volkswagen	381	308	-19.2%	913	1,143	25.2%	2,468	3,282	33.0%	2.4	2.6	0.2
Volvo	111	129	16.2%	302	476	57.6%	840	1,176	40.0%	0.8	0.9	0.1
Other	44	32	-27.3%	119	126	5.9%	416	424	1.9%	0.4	0.3	-0.1

Other includes Aston Martin, Bentley, Ferrari, Freightliner, GEM, Isuzu, Lamborghini, Lotus, McLaren, and Rolls Royce.

Orange County Auto Outlook

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Explanation of Data

Data presented in Auto Outlook measures new vehicle registrations in Orange County. Monthly recording of registrations occurs when vehicle title information is processed.

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