

Silicon Valley Auto Outlook



Comprehensive information on the Santa Clara County new vehicle market

FORECAST

Pent Up Demand Will Give Market a Boost When Supplies Improve

The observations below provide a concise review of key trends in the Santa Clara County new vehicle market.

Sales remained below average in the First Quarter of this year.

New retail light vehicle registrations in the county increased 3.9% during the first three months of 2022 versus relatively weak results a year earlier. Strong results for Tesla were responsible for the improvement. Excluding Tesla, the market declined by more than 10%.

Decline expected in 2Q.

Registrations are predicted to decline in the Second Quarter of this year as tight inventories will continue to be a factor. The market would have struggled to exceed year-earlier levels even if supplies were plentiful. Registrations during the Second Quarter of last year approached 20,000 units, the highest total since the First Quarter of 2021.

New vehicle affordability has taken a turn for the worse.

About 18 months ago, strong affordability was a primary ingredient contributing to the relatively upbeat outlook. Income growth was solid, interest rates were near 0%, inflation was under control, and transaction

prices were relatively stable. Just about all of that has changed. Lean supplies have pushed prices significantly upward and higher interest rates are boosting monthly payments. Higher wages have helped, but monthly vehicle loan and lease costs as a percent of disposable income have moved higher during the past several months.

Demand for new vehicles could soften over the coming months; but it's not likely to impact sales.

As mentioned above, affordability has weakened, gas prices have surged, and there's a war in Europe. In normal times, these simultaneous events would have pushed new vehicles sales sharply lower, but these are definitely not normal times. Vehicle production, not demand, will be the controlling factor that will dictate sales levels for at least the next year, and most analysts are predicting only a gradual improvement in production over the next several months.

Baseline forecast for county new light vehicle registrations in 2022: 74,000 units, up 4% from 2021.

2022 is likely to be the third straight year of registrations below 75,000 units. It's beginning to sound like a broken record, but since the onset of the pandemic, there has been a great deal of uncertainty related to

the forecast. Vehicle supply constraints and the war in Europe have added to the risks. One thing we do know: significant pent up demand is accumulating which will provide a boost to sales in the coming years.

Market shares for Tesla, BMW, and Kia moved higher in early 2022.

Typically, improving brand market share is a function of new product, effective marketing, incentives, and dealership sales performance. But in 2022, practically none of that matters. Brands that have benefitted from even a mild improvement in vehicle availability have had a boost in market share, while those with dwindling stocks lost share. Tesla market share increased by 12.3 points in 1Q '22 vs. year earlier.

Forecast for Santa Clara County New Retail Light Vehicle Registrations in 2022

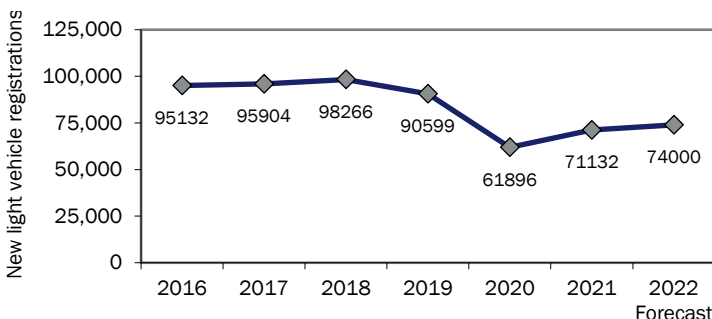


Baseline scenario: 74,000 up 4.0% vs. '21

Alternative upside: 77,900 up 9.5% vs. '21

Alternative downside: 69,700 down 2.0% vs. '21

Annual Trend in Santa Clara County Market



Market Summary

	YTD '21	YTD '22	% Chg.	Mkt. Share
	March	March	'21 to '22	YTD '22
TOTAL	16,960	17,614	3.9%	
Car	5,925	6,106	3.1%	34.7%
Light Truck	11,035	11,508	4.3%	65.3%
Domestic	5,243	6,621	26.3%	37.6%
European	2,963	3,209	8.3%	18.2%
Japanese	7,866	6,783	-13.8%	38.5%
Korean	888	1,001	12.7%	5.7%

The graph above shows annual new retail light vehicle registrations from 2016 thru 2021 and Auto Outlook's projection for 2022. Historical Data Source: AutoCount data from Experian.

Domestics consist of vehicles sold by GM, Ford, Stellantis (excluding Alfa Romeo and FIAT), and Tesla. Data Source: AutoCount data from Experian.

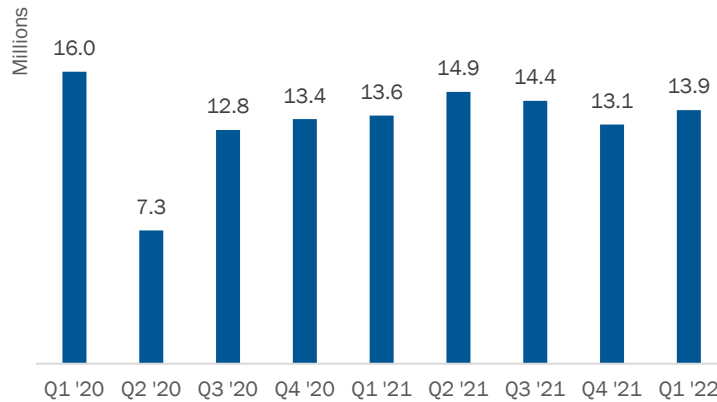


Santa Clara County New Vehicle Market Dashboard



MARKET PERFORMANCE DURING PAST TWO YEARS

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



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 million units in the First Quarter of 2020 and fell to below 15 million in the following eight quarters

Data Source: AutoCount data from Experian. SAAR estimates: Auto Outlook.



COUNTY MARKET VS. U.S.

% Change In New Retail Market YTD '22 thru March vs. YTD '21

Santa Clara County UP 3.9%

U.S. DOWN 14.9%

New retail light vehicle registrations in the county increased 3.9% during the first three months of this year versus year earlier, better than the 14.9% drop in the Nation. All of the strength in the county market was due to Tesla. Excluding Tesla, the county market declined 10.6% in the First Quarter.

Source for county registrations: AutoCount data from Experian. U.S. figures estimated by Auto Outlook.

At Auto Outlook, we strive to provide sound and accurate analyses and forecasts based upon the data available to us. However, our forecasts are derived from third-party data and contain a number of assumptions made by Auto Outlook and its management, including, without limitation, the accuracy of the data compiled. As a result, Auto Outlook can make no representation or warranty with respect to the accuracy or completeness of the data we provide or the forecasts or projections that we make based upon such data. Auto Outlook expressly disclaims any such warranties, and undue reliance should not be placed on any such data, forecasts, projections, or predictions. Auto Outlook undertakes no obligation to update or revise any predictions or forecasts, whether as a result of any new data, the occurrence of future events, or otherwise.

Silicon Valley Auto Outlook

Published for: Silicon Valley Auto Dealers Association
1762 Technology Drive, Suite 122, San Jose, CA 95110 Phone: 408.437.7557
Mark Maxwell, President

Published by: Auto Outlook, Inc.
PO Box 390, Exton, PA 19341 Phone: 610-640-1233
Editor: Jeffrey A. Foltz EMail: jfoltz@autooutlook.com

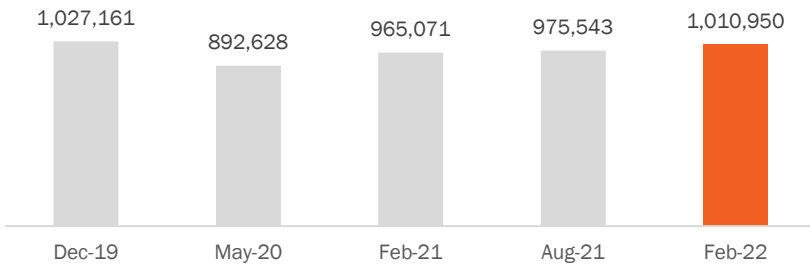
Information quoted must be attributed to Silicon Valley Auto Outlook, published by Auto Outlook, Inc. on behalf of the Silicon Valley Automobile Dealers Association, and must also include the statement: "Data Source: AutoCount Data from Experian." Copyright Auto Outlook, Inc., April, 2022

Santa Clara County New Vehicle Market Dashboard



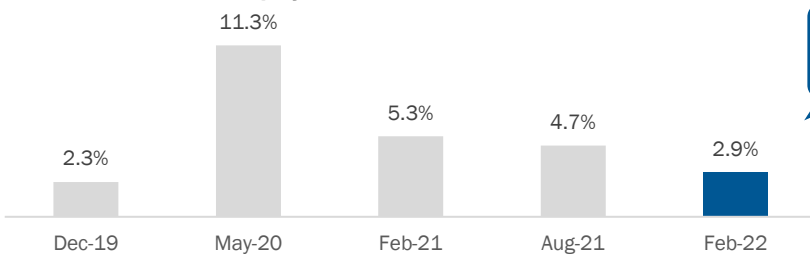
SNAPSHOT OF SANTA CLARA COUNTY ECONOMY

Total Employment in Selected Months



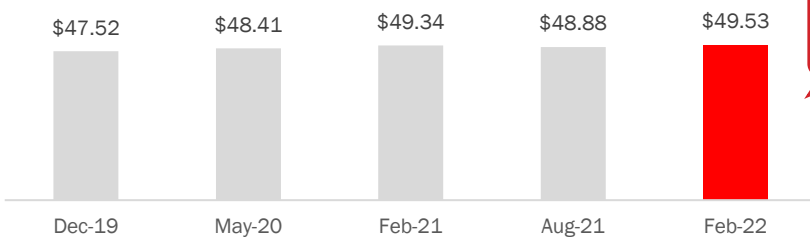
Change in total employment from Dec. '19 to Feb. '22: down 16,211, a 1.6% drop.

Unemployment Rate in Selected Months



County unemployment rate was 0.6 percentage points higher in Feb. '22 vs. Dec. '19.

Average Hourly Earnings in Selected Months



Average hourly earnings increased by \$2.01 during the past two years.

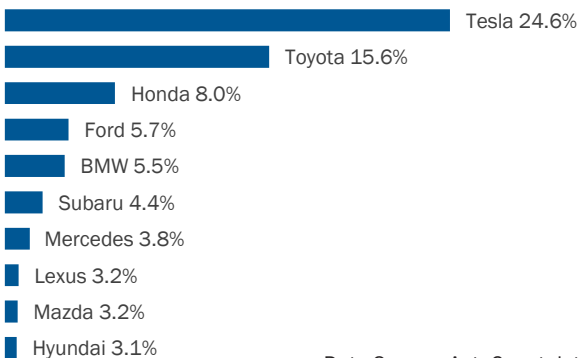
As discussed on page one, surging inflation, rising gas prices, and declining consumer sentiment are headwinds for economic growth, but as shown on the three graphs to the left, the Santa Clara County economy has largely recovered from the downturn caused by the pandemic. Total employment is down just slightly from December of 2019 (before the onset of the pandemic) to February of this year. The unemployment rate was just 2.9%, and wages have increased.

Source: U.S. Department of Labor

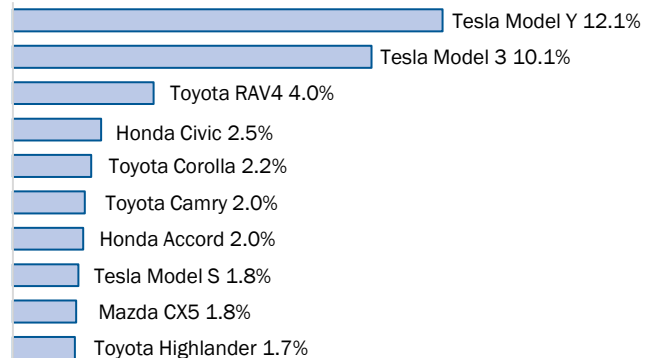


TOP TEN RANKINGS IN COUNTY MARKET

Market Share for Top Ten Selling Brands in County Market YTD 2022 thru March



Market Share for Top Ten Selling Models in County Market YTD 2022 thru March

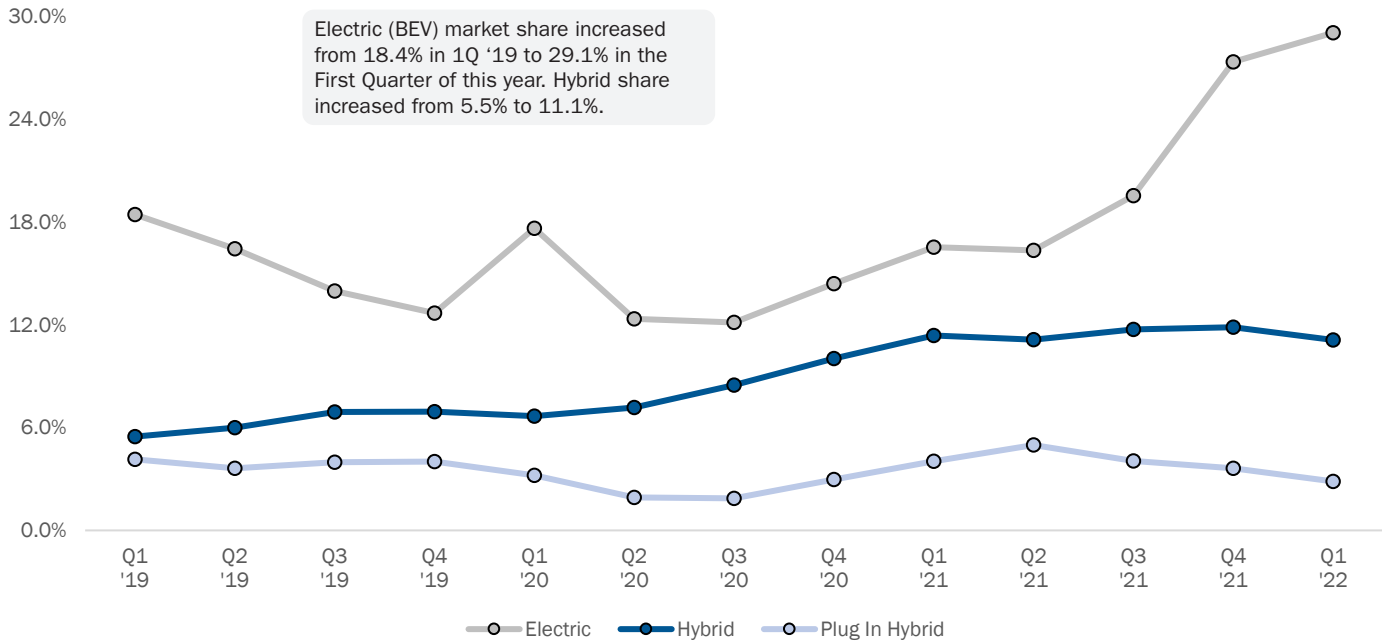


Data Source: AutoCount data from Experian.

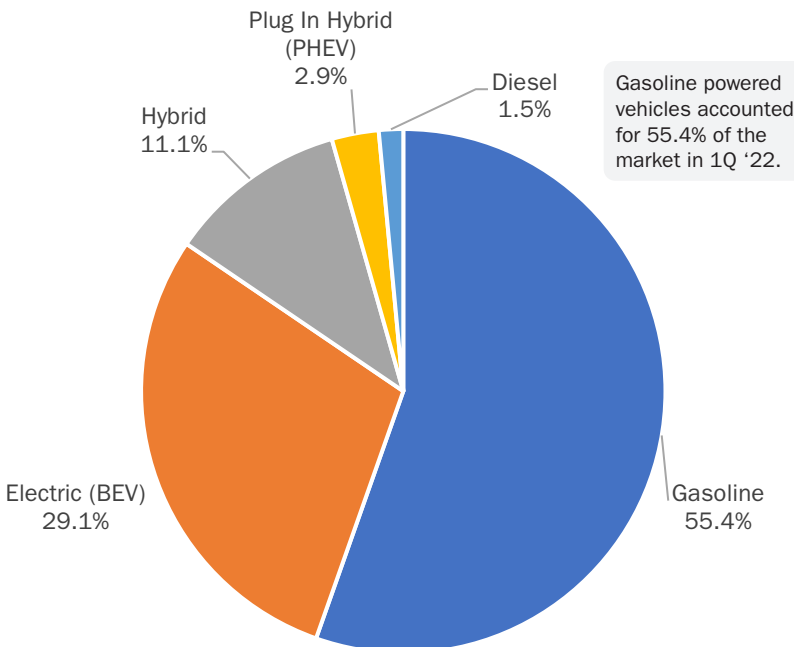
Vehicle Powertrain Dashboard



Estimated Quarterly Alternative Powertrain Market Share in County (includes hybrid and electric vehicles)



County Estimated Market Share by Powertrain Type YTD 2022 thru March



Top 10 Selling Brands in County for Hybrid, Electric (BEV), and Plug In Hybrid (PHEV) Vehicles - YTD '22 thru Mar.

Rank	Brand	Registrations
1	Tesla	4330
2	Toyota	1188
3	Ford	275
4	Honda	236
5	Hyundai	218
6	Lexus	203
7	Mercedes	177
8	Volvo	176
9	Nissan	172
10	Kia	133

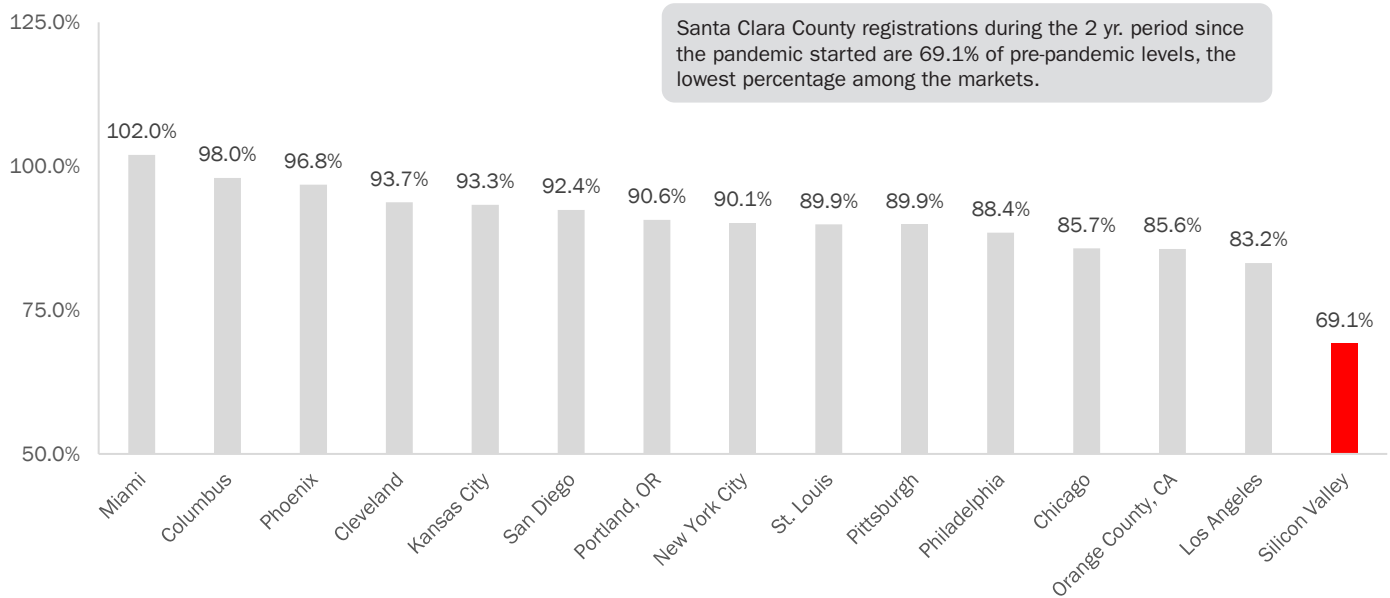
Registrations by powertrain for vehicles equipped with multiple engine types were estimated by Auto Outlook. The estimates are based on model registrations compiled by Experian Automotive, and engine installation rates collected from other sources.

Comparison of Selected Metro Area Markets

COVID-19 Impact of COVID-19 Pandemic and Ensuing Vehicle Supply Issues on Area Markets

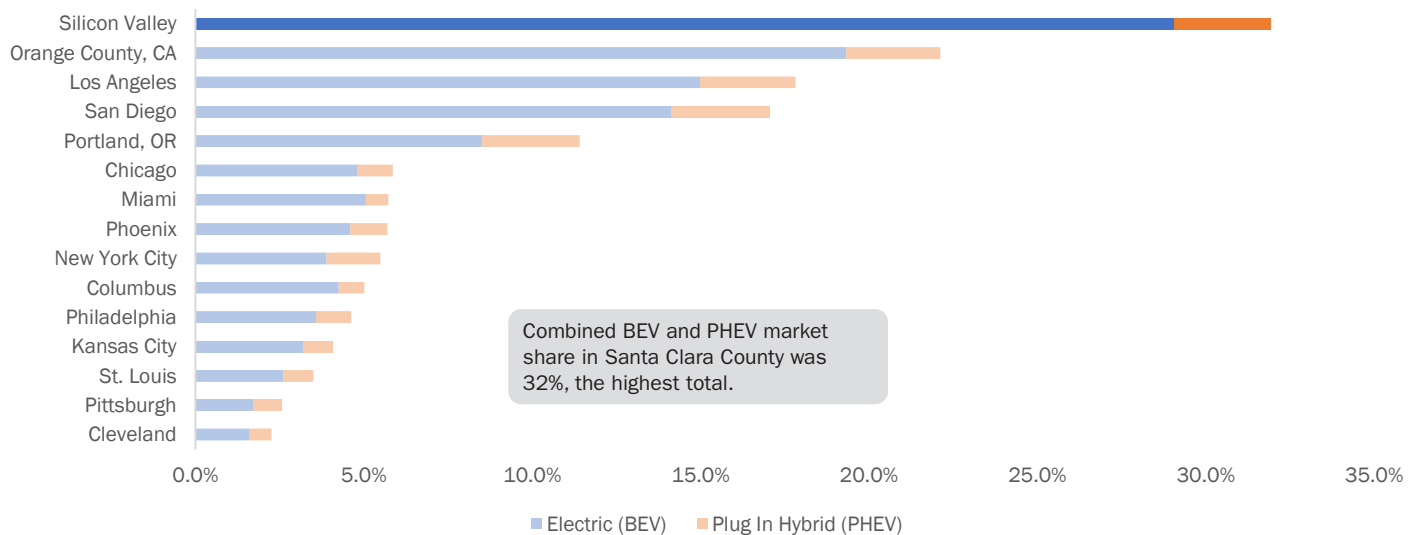
The graph below provides a comparison of how metro area new vehicle sales have been impacted by the pandemic and resulting vehicle inventory shortages. The percentages shown represent new vehicle registrations during the two year period since the pandemic started (2Q '20 thru 1Q '22) divided by registrations during the preceding two year period (2Q '18 thru 1Q '20). Areas on the left of the graph (Miami and Columbus) experienced a relatively mild impact, while those on the right (LA and Silicon Valley) lost more sales due to the pandemic.

New Vehicle Registrations During 2Q '20 thru 1Q '22 as a % of Registrations during 2Q '18 thru 1Q '20



Comparison of BEV and PHEV Market Share

Estimated Electric (BEV) and Plug in Hybrid (PHEV) Market Share During 1Q '22



	Clev.	Pitt.	St. L	KC	Phil.	Colum.	NYC	Phoenix	Miami	Chic.	Portland	SD	LA	OC, CA	Sil. Val.
Electric	1.6%	1.7%	2.6%	3.2%	3.6%	4.3%	3.9%	4.6%	5.1%	4.8%	8.5%	14.1%	15.0%	19.3%	29.1%
Plug In Hy.	0.6%	0.8%	0.9%	0.9%	1.1%	0.8%	1.6%	1.1%	0.7%	1.1%	2.9%	2.9%	2.8%	2.8%	2.9%

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. March '22 figures were estimated for some markets.

Brand Registrations Report												
Santa Clara County New Retail Car and Light Truck Registrations												
	First Quarter						Annual Totals					
	Registrations			Market Share (%)			Registrations			Market Share (%)		
	1Q '21	1Q '22	% change	1Q '21	1Q '22	Change	2020	2021	% change	2020	2021	Change
TOTAL	16,960	17,614	3.9				61,896	71,132	14.9			
Cars	5,925	6,106	3.1	34.9	34.7	-0.2	24,868	25,686	3.3	40.2	36.1	-4.1
Light Trucks	11,035	11,508	4.3	65.1	65.3	0.2	37,028	45,446	22.7	59.8	63.9	4.1
Domestic Brands	5,243	6,621	26.3	30.9	37.6	6.7	17,951	21,949	22.3	29.0	30.9	1.9
European Brands	2,963	3,209	8.3	17.5	18.2	0.7	10,864	12,902	18.8	17.6	18.1	0.5
Japanese Brands	7,866	6,783	-13.8	46.4	38.5	-7.9	30,072	32,037	6.5	48.6	45.0	-3.6
Korean Brands	888	1,001	12.7	5.2	5.7	0.5	3,009	4,244	41.0	4.9	6.0	1.1
Acura	200	209	4.5	1.2	1.2	0.0	1,072	1,100	2.6	1.7	1.5	-0.2
Alfa Romeo	25	15	-40.0	0.1	0.1	0.0	99	92	-7.1	0.2	0.1	-0.1
Audi	449	423	-5.8	2.6	2.4	-0.2	1,735	1,805	4.0	2.8	2.5	-0.3
BMW	703	971	38.1	4.1	5.5	1.4	2,520	3,522	39.8	4.1	5.0	0.9
Buick	29	14	-51.7	0.2	0.1	-0.1	138	123	-10.9	0.2	0.2	0.0
Cadillac	83	64	-22.9	0.5	0.4	-0.1	249	264	6.0	0.4	0.4	0.0
Chevrolet	906	346	-61.8	5.3	2.0	-3.3	3,242	3,160	-2.5	5.2	4.4	-0.8
Chrysler	135	50	-63.0	0.8	0.3	-0.5	284	362	27.5	0.5	0.5	0.0
Dodge	139	84	-39.6	0.8	0.5	-0.3	533	530	-0.6	0.9	0.7	-0.2
Ford	995	1,006	1.1	5.9	5.7	-0.2	3,692	3,773	2.2	6.0	5.3	-0.7
Genesis	22	29	31.8	0.1	0.2	0.1	52	155	198.1	0.1	0.2	0.1
GMC	219	190	-13.2	1.3	1.1	-0.2	917	811	-11.6	1.5	1.1	-0.4
Honda	1,943	1,410	-27.4	11.5	8.0	-3.5	7,690	7,687	0.0	12.4	10.8	-1.6
Hyundai	530	552	4.2	3.1	3.1	0.0	1,759	2,458	39.7	2.8	3.5	0.7
Infiniti	55	29	-47.3	0.3	0.2	-0.1	168	201	19.6	0.3	0.3	0.0
Jaguar	32	24	-25.0	0.2	0.1	-0.1	178	95	-46.6	0.3	0.1	-0.2
Jeep	372	313	-15.9	2.2	1.8	-0.4	1,200	1,497	24.8	1.9	2.1	0.2
Kia	336	420	25.0	2.0	2.4	0.4	1,198	1,631	36.1	1.9	2.3	0.4
Land Rover	168	126	-25.0	1.0	0.7	-0.3	550	571	3.8	0.9	0.8	-0.1
Lexus	633	569	-10.1	3.7	3.2	-0.5	2,533	2,566	1.3	4.1	3.6	-0.5
Lincoln	22	12	-45.5	0.1	0.1	0.0	102	79	-22.5	0.2	0.1	-0.1
Maserati	7	18	157.1	0.0	0.1	0.1	33	31	-6.1	0.1	0.0	-0.1
Mazda	559	561	0.4	3.3	3.2	-0.1	2,187	2,445	11.8	3.5	3.4	-0.1
Mercedes	755	668	-11.5	4.5	3.8	-0.7	2,619	2,797	6.8	4.2	3.9	-0.3
MINI	49	113	130.6	0.3	0.6	0.3	246	268	8.9	0.4	0.4	0.0
Mitsubishi	11	26	136.4	0.1	0.1	0.0	66	83	25.8	0.1	0.1	0.0
Nissan	436	446	2.3	2.6	2.5	-0.1	1,634	1,794	9.8	2.6	2.5	-0.1
Other	27	21	-22.2	0.2	0.1	-0.1	117	94	-19.7	0.2	0.1	-0.1
Porsche	232	230	-0.9	1.4	1.3	-0.1	723	913	26.3	1.2	1.3	0.1
Ram	249	212	-14.9	1.5	1.2	-0.3	671	891	32.8	1.1	1.3	0.2
Subaru	716	780	8.9	4.2	4.4	0.2	3,326	3,084	-7.3	5.4	4.3	-1.1
Tesla	2,094	4,330	106.8	12.3	24.6	12.3	6,923	10,459	51.1	11.2	14.7	3.5
Toyota	3,313	2,753	-16.9	19.5	15.6	-3.9	11,396	13,077	14.8	18.4	18.4	0.0
Volkswagen	339	388	14.5	2.0	2.2	0.2	1,395	1,820	30.5	2.3	2.6	0.3
Volvo	177	212	19.8	1.0	1.2	0.2	649	894	37.8	1.0	1.3	0.3

Source: AutoCount data from Experian.

The table shows new retail light vehicle (car and light truck) registrations in the Santa Clara County market. Figures are shown for the 1st Quarters of '21 and '22, and annual totals for 2020 and 2021. The top ten ranked brands in each change category are shaded light yellow.