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# Plugged-In: EV Collision Insights Q4 2022

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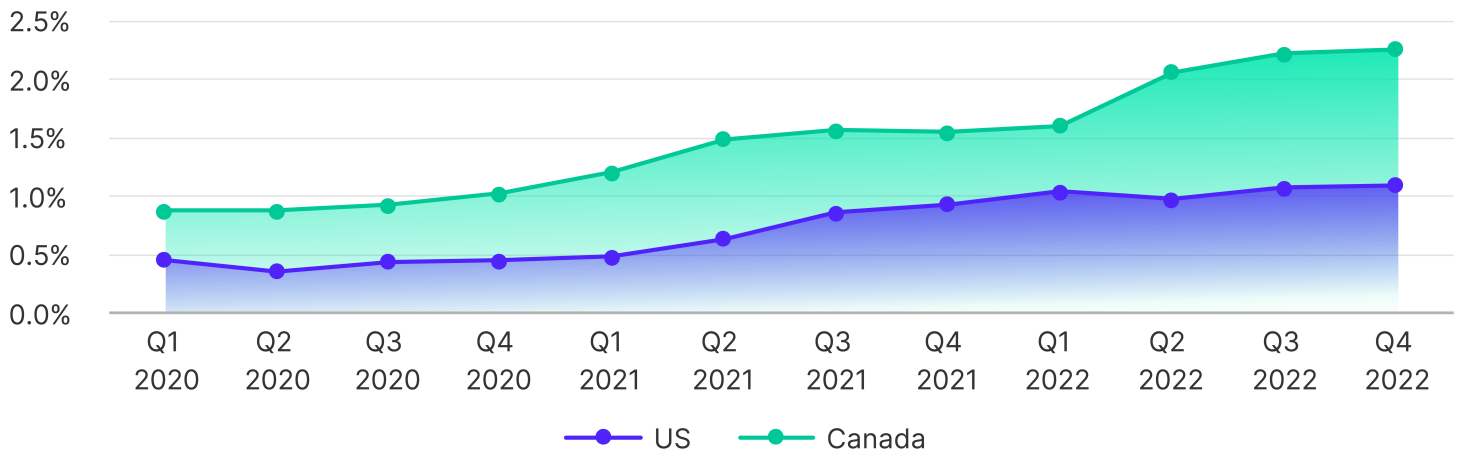
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In Q4 2022, electric vehicle (EV) repairable claims frequency rose to 1.1% in the U.S. and 2.26% in Canada. Tesla continues to dominate EV market share in both countries with 76.78% in the US and 70.21% in Canada. The Ford Mustang Mach-E moved up to fourth position in U.S. EV frequency, displacing the Tesla Model X. Q4 2022 also saw the first appearance of the Hummer EV in a U.S. collision repair facility (none reported in Canada thus far) as well as the Ford F-150 Lightning EV in a Canadian repair facility following its Q3 2022 debut in U.S. auto body shops.

## EV Frequency of Repairable Claims Volume



Source: Mitchell International, Inc.

The average percentage of parts repaired on EVs increased from 11.05% in Q3 2022 to 12.16% in Q4 2022 suggesting that repair facilities may be improving their capabilities to repair lighter weight substrates. However,

a portion of this increase may also have to do with ongoing supply chain disruptions and the lack of replacement parts availability. EV part repair frequency also continues to lag behind vehicles with internal combustion engines (ICEs), ending the quarter at 19.18% (an increase from 18.83% the previous quarter). The average number of mechanical labor hours on EV estimates still outpaces ICE vehicles with 1.7 additional mechanical labor hours present on EV collision damage appraisals compared to estimates for ICE-powered automobiles. The management of the high-voltage battery system and the extra time spent de-energizing EVs coupled with resolving disruptions in the vehicles' complex network of interconnected systems accounts for most of this additional labor.

As EV market growth continues and more EVs enter auto body shops, both carriers and collision repairers must ensure they are prepared. For the repair industry, additional training, tooling and equipment will be necessary considerations to meet the needs of these complex and interconnected vehicles. Automotive insurers, on the other hand, should be ready to examine underwriting practices so that they can meet the demands of a growing segment of the car parc with higher average repair costs and more complex repair procedures that must be performed to successfully deliver a proper and safe repair.



**90.11%**

**OEM Parts  
Utilization**



**12.16%**

**Percentage of  
Parts Repaired**



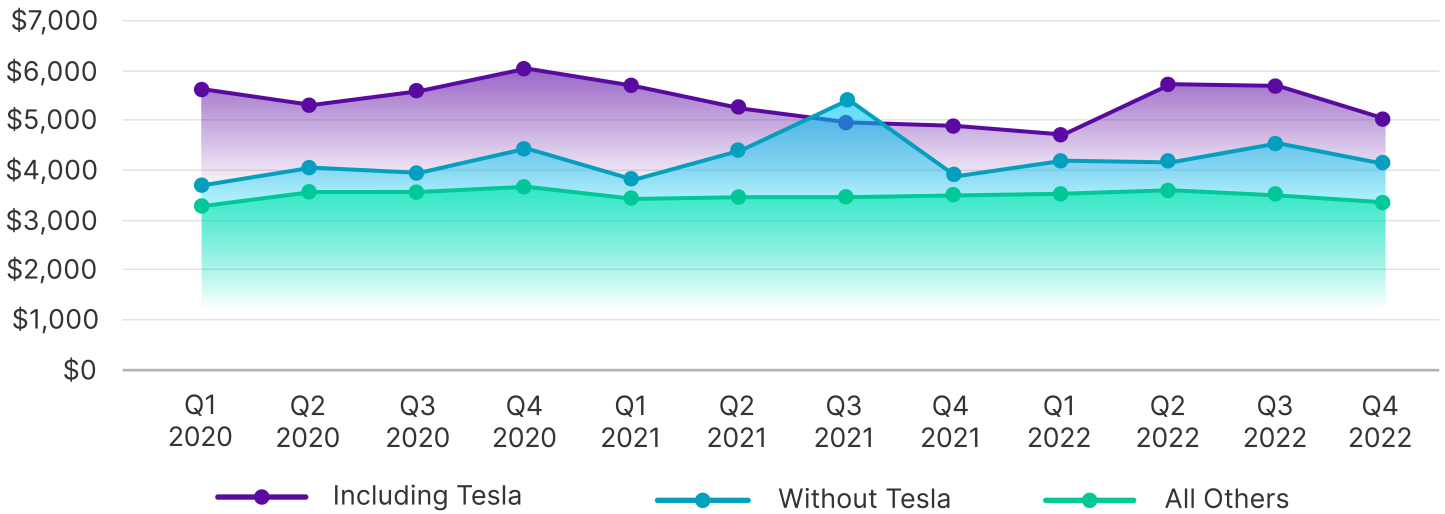
**27.45%**

**Average  
Supplement Delta**

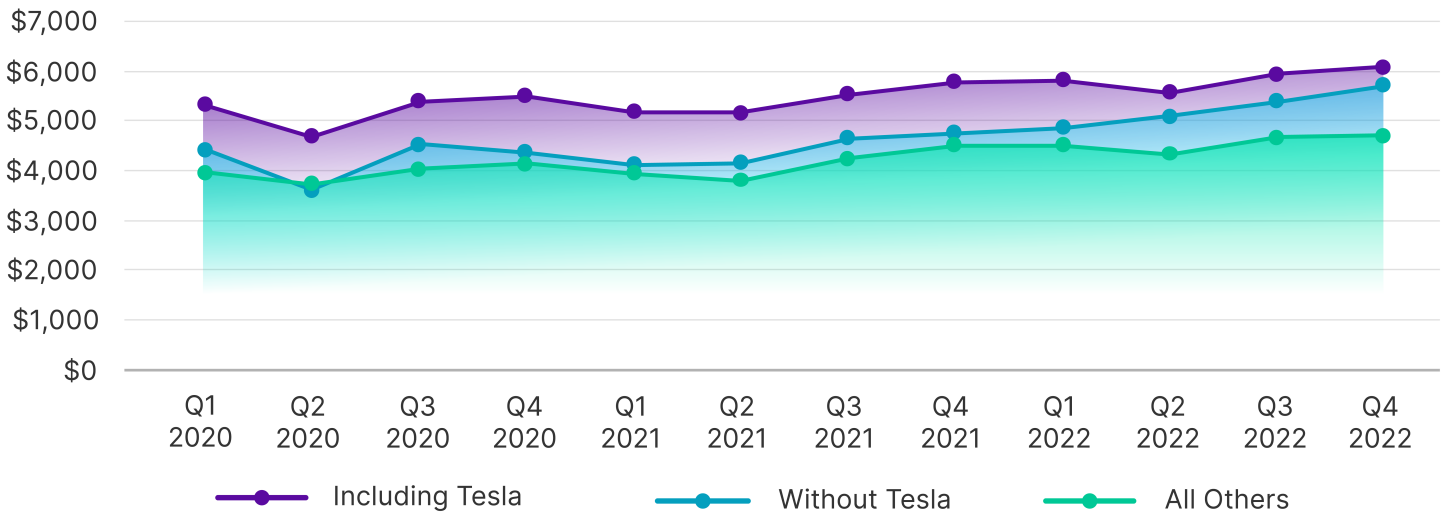
Source: Mitchell International, Inc.

# EV Average Repairable Severity

## US



## Canada



Source: Mitchell International, Inc.

## By the Numbers

### Top North American EV Markets Based on Repairable Claims Frequency



**4.47%**  
British Columbia



**3.37%**  
California



**2.75%**  
Quebec

Source: Mitchell International, Inc.

## Top Five EV Model Frequency by Region

US		Canada	
Tesla Model 3	40.08%	Tesla Model 3	45.00%
Tesla Model Y	21.01%	Tesla Model Y	17.29%
Tesla Model S	10.67%	Nissan Leaf	7.24%
Ford Mustang Mach-E	5.14%	Hyundai Kona EV	6.91%
Tesla Model X	5.02%	Chevy Bolt	5.19%

Source: Mitchell International, Inc.

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