



| THE AUTO LEMON INDEX

Which top-selling auto manufacturers are sued the most, and the least, over defective cars in California?

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The authors bear responsibility for any factual errors. Policy recommendations are those of CALPIRG Education Fund and CARS Foundation. The views expressed in this report are those of the authors.

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Disclaimer: Nothing in this report is intended as legal advice. If you think you may have a lemon vehicle, contact a Lemon Law attorney who is experienced in using California's auto Lemon Law and other consumer protection statutes. The National Association of Consumer Advocates offers a "Find an Attorney" feature, listing consumer attorneys by state and area of expertise.

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EXECUTIVE SUMMARY

FOR 40 YEARS, CALIFORNIA'S LANDMARK auto Lemon Law has offered protection and legal recourse to consumers who purchase seriously defective vehicles.¹ The law, which became a model for similar state legislation across the country, continues to be one of the nation's strongest recipes for automotive "lemon-aid," and continues to make California roads safer today.² Since its enactment in 1982, it has also been expanded to provide protections for small business owners, individual entrepreneurs, and members of the U.S. Armed Forces stationed in, or deployed from, California.³

The Lemon Law requires auto manufacturers to provide vehicle owners with refunds or replacement vehicles when the manufacturers fail to fix major problems that arise at any time while under the manufacturer's warranty.⁴

Research into California state electronic court filings provides an unprecedented view into how likely California consumers are to wind up in court after purchasing a car, SUV or light truck from different auto manufacturers. **Only a small share of defective vehicles end up in court under the Lemon Law. But there are huge variations among manufacturers** in the frequency with which consumers file suit over defective vehicles, with Toyota the least-often sued, and General Motors the most-often sued, under the Lemon Law relative to their California market share from 2018 through 2021.⁵

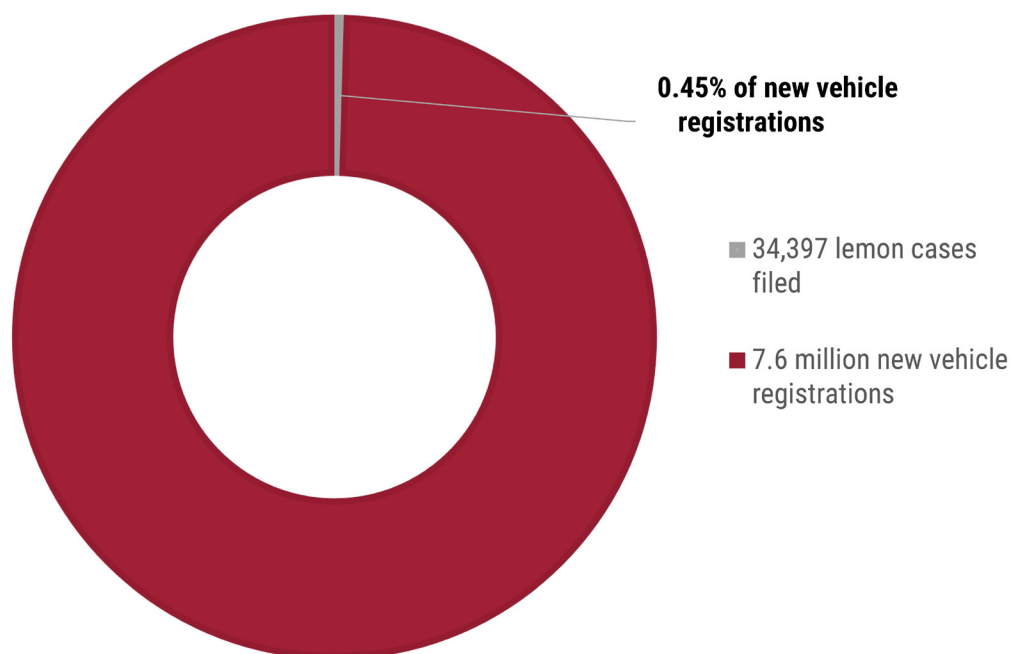
Few problems with defective vehicles wind up in court. Nearly all complaints about defective or dangerous vehicles are handled outside of the court system. In some cases, automakers and dealers make repairs, issue refunds, or provide replacement vehicles without being taken to court. In many other cases, consumers with defective vehicles never get as far as speaking with a lawyer. Many give up and sell their defective vehicles back to dealerships at a substantial loss.

- Among the more than 7 million new vehicles registered in California from 2018 through 2021, only 34,397 – less than one-half of one percent – resulted in a lawsuit filed in state courts.⁶ (See Figure ES-1, next page.)
- Further, the number of Lemon Law cases in 2021 amounted to a fraction of 1 percent of the more than 6 million vehicles in the state with serious safety defects subject to a federally mandated safety recall.⁷

There is wide variation in the frequency with which manufacturers are taken to court under the Lemon Law.

- **Toyota was taken to court under the Lemon Law only once for every 2,029 new Toyota vehicles registered in the state from 2018 through 2021.** On the other end of the spectrum, **General Motors became the subject of lemon litigation once for every 78 new GM**

FIGURE ES-1. CALIFORNIA LEMON LAW CASES FILED IN COURT, AS A PERCENTAGE OF TOTAL NEW CAR REGISTRATIONS, 2018 - 2021⁸



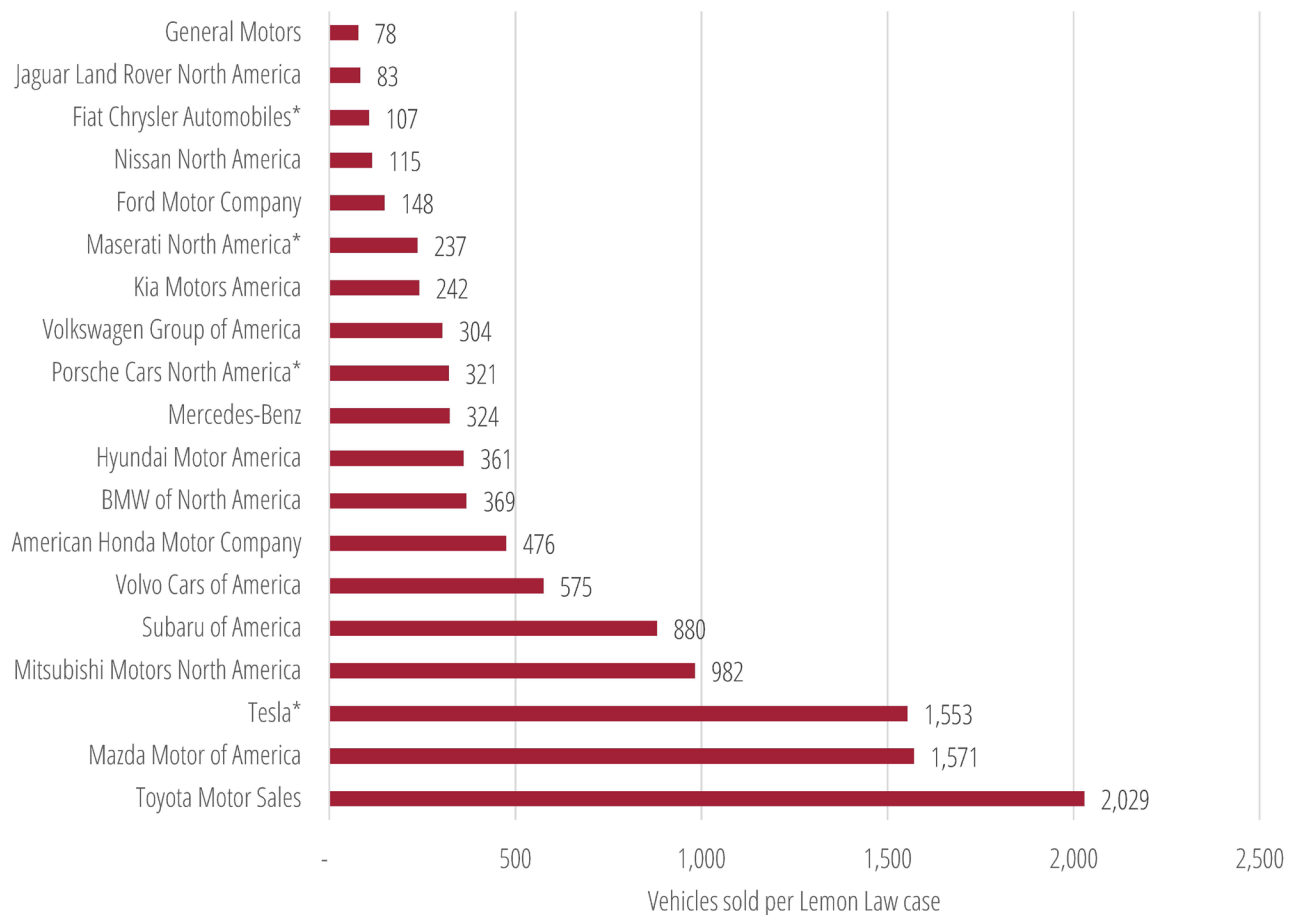
vehicles registered in California. Consumers who purchased GM vehicles were approximately 26 times as likely to file a lemon lawsuit as consumers who purchased Toyotas.

- There are a number of factors that contribute to how often a manufacturer is sued over Lemon Law violations. Vehicle quality is likely a large factor; other factors include how promptly and effectively the brand's dealerships handle problems raised by consumers; and the length of the warranty the manufacturer offers on its cars. Another contributing factor is how well a particular manufacturer addresses the severe shortage of qualified automotive technicians and software engineers for troubleshooting defects, and develops or implements fixes that actually work to remedy problems that arise in today's highly computerized vehicles.¹⁰

Consumers who pursued auto lemon litigation in California from 2018 through 2021 complained that they experienced a wide range of defects, including brake, steering, engine, transmission and electrical failures. Consumers often experienced multiple problems with their cars by the time they pursued litigation.

- Lemon vehicles are often dangerous, threatening the safety of the driver, passengers and people sharing the roads with defective cars. According to the vehicle history report provider Carfax, in 2021 there were 6.3 million vehicles with unrepaired safety recall defects being driven on California roads.¹¹ These vehicles are so unsafe that the manufacturers have issued a federally mandated safety recall, and it would be a violation of federal law for any car dealer to sell them as "new" vehicles. Typical safety recall defects include catching on fire, faulty brakes, loss

FIGURE ES-2. CARS SOLD PER LEMON LAW CASE, 2018 - 2021⁹



Notes: Total excludes 261 cases filed against smaller vehicle manufacturers. Porsche and Maserati are part of larger automakers (Volkswagen and Fiat Chrysler, respectively) and cases listed here are only those for which the subsidiary brands are listed as defendants. Tesla Motors primarily sells vehicles directly to consumers and its case numbers may be affected by its use of arbitration, see page 21. Fiat Chrysler became part of Stellantis in 2021.

of steering, axles that fall apart, hoods that fly up in traffic and obscure the driver's vision, seat belts that fail in a crash, and exploding Takata airbags that shoot metal shrapnel into the faces and torsos of drivers and passengers, causing devastating injuries or death.¹²

- Some owners of hazardous recalled vehicles experienced lengthy delays – sometimes lasting for many months

– in obtaining recall repairs and were able to use California's auto Lemon Law to obtain refunds or safer replacement vehicles.¹³

In addition to defects that threaten the safety of drivers and the people around them, lemons also often represent **an unexpected financial and time burden for consumers and small business owners**. Even though repairs are covered by the manufacturer's

warranty, lemons are usually very unreliable, and may also be unsafe. This can create hardship when owners must have vehicles towed to the dealership for repairs, are left stranded by the side of the road, or lose their only means of transportation to work, school, medical care and other necessities of modern life for extended periods while their lemon is in the repair shop.

Before state Lemon Laws were enacted, auto dealers and manufacturers insisted that their only obligation was to “attempt” warranty repairs, leaving angry and frustrated lemon owners with faulty, unreliable,

often dangerous vehicles.¹⁴ Lemon Laws have helped change this, allowing consumers to protect themselves from both physical and financial harm when it comes to buying defective cars. The Lemon Law was an important addition to California’s consumer protection landscape 40 years ago, and it continues to be an important safeguard today. **California’s landmark auto Lemon Law’s strong recipe for automotive “lemon-aid” should be preserved for consumers – including members of the U.S. Armed Forces and their families – and for individual entrepreneurs and small businesses, now and in the future.**

| Introduction

PAUL BLOUNT, A HUSBAND AND FATHER of three children, works as a Licensed Clinical Social Worker and lives in Los Angeles. Over the years, he bought several Jeeps and was happy with their performance. In 2017, he purchased a brand new 2017 Jeep Renegade. But unlike the other Jeeps he had owned, it was a nightmare.¹⁵

Sometimes, Blount said, it wouldn't start. At other times, it surged without warning when he needed to stop and lurched forward, nearly causing him to crash into the cars ahead, or hesitated when he needed to speed up, such as when he was trying to merge onto a freeway.

He took the Jeep to the dealership for repairs. But, according to Blount, the dealer denied there was anything wrong and refused to even try to fix it. Blount also reached out to Fiat Chrysler directly but received no response at all. After experiencing near-crashes, he refused to put his children in the Jeep. His wife was afraid to drive it. He drove it as little as possible and had to borrow his wife's car to drive his kids to and from school and do other activities. "Bottom line, that Jeep was a deathtrap," he said.

He repeatedly asked Chrysler for help, to no avail. Finally, he hired a law firm that specializes in representing lemon owners.

Instead of resolving the case, Fiat Chrysler fought back and caused lengthy delays. Their attorneys insisted on deposing Blount, and even after hearing about his experiences with the Jeep, it took almost two years of litigation for the case to be finally resolved. Blount says that he will never buy another Chrysler product again.

Blount is one of many Californians who find themselves stuck with an unsafe or unreliable vehicle that the manufacturer fails or refuses to repair or replace. However, thanks to decades of hard-fought improvements to California's consumer protection laws, consumers like Paul Blount, members of the U.S. Armed Forces and their families, and small business owners have a powerful tool to protect their interests: California's Lemon Law.

Over the last 40 years, California's landmark auto Lemon Law has provided vital protections to tens of millions of vehicle owners who bought new or used vehicles with a manufacturer's warranty in effect. California's strong recipe for auto "lemon-aid," widely known as a model for the nation, has incentivized auto manufacturers to live up to their warranties, motivated auto manufacturers to improve the quality of their vehicles, and provided relief for victims of vehicles with serious defects.

Lemon Laws protect consumers from dangerous and defective cars

NO ONE EXPECTS TO DRIVE AWAY FROM the dealership only to discover their new car comes with serious defects. However, millions of Americans find themselves with seriously defective vehicles that are unable to be driven or unsafe to drive.¹⁶ When it happens, state auto Lemon Laws provide a vitally important avenue for recourse.

Lemon Laws require auto manufacturers to give owners of defective cars refunds or a replacement vehicle when the manufacturers fail to fix major problems that arise during the warranty period.¹⁷ These laws are designed to help encourage fast action on the part of manufacturers, putting limits on how many times owners of lemon vehicles may be required to take their vehicles in for repairs or wait while their vehicles are in the repair shop before they are entitled to a refund or replacement. Lemon Laws cover defects that “substantially impair” the vehicle’s use, value or safety.¹⁸

Lemon cars can be dangerous and put lives at risk

A faulty car can put people’s lives at serious risk. Examples of typical defects leading to Lemon Law litigation include brakes that fail, intermittent stalling in traffic, surging out of control, “phantom” braking in traffic when there’s nothing in the road, doors that fail to open, and intermittent malfunctions in electronic systems that control the vehicle’s safe operation.¹⁹ These defects put not only a car owner’s safety at risk, but they also jeopardize the safety of their families, other passengers, and those around them.

Lemon Laws have helped put pressure on auto manufacturers to make cars safer

and to deal with problems before cars hit the market. But while the overall safety of vehicles on the market has improved since the passage of California’s Lemon Law in 1982 – due in large part to mandatory federal Motor Vehicle Safety Standards for airbags, better seat belts, and pro-active crash avoidance systems – modern cars are far from defect-free, and California’s Lemon Law remains as important as ever.²¹

New technologies have often created new problems for car buyers. Manufacturers have shifted to electronics for controlling virtually all major systems in their vehicles, and cars now operate thanks to millions of lines of computer code. As a result, the potential for software-related malfunctions has increased exponentially. This is especially true in high-tech vehicles, which, according to a recent article about *Consumer Reports’* auto reliability ratings, “tend to have touchscreen controls for climate, seat controls and other devices that once were mechanical, leading to problems.”²²

Millions of vehicles, meanwhile, continue to be sold with defects serious enough to result in mandatory federal safety recalls. From 2010 to 2019, the number of auto safety recalls issued in the U.S. increased by 82%.²³ One factor contributing to increasing recalls is changes in supply chains and auto manufacturing processes in recent decades. Increasingly, multiple models of cars use common parts from the same supplier, spreading a defective component or piece of software across a large number of vehicles, and even across different automakers.²⁴ For example, the

UNREPAIRED MECHANICAL PROBLEMS ALLEGEDLY LEAD TO CRASH AND INJURIES

In September 2017, Alvin Ruis, a resident of Chula Vista, purchased a new 2017 GMC Sierra 1500 with a warranty from General Motors that lasted for five years / 60,000 miles.²⁰

During the warranty period, he repeatedly experienced major problems with the transmission banging violently into gear and with the brake system, and he received alert warnings related to the truck's traction control functions.

Worried about his safety, and the safety of others, he took the truck to a GM dealership multiple times for repairs, but the problems persisted. He also repeatedly contacted GM directly and sought help, including asking for a refund or replacement vehicle, but GM refused.

With the safety defects unrepaired and GM refusing to buy back the truck pursuant to the Lemon Law, he hired a law firm that specializes in representing owners of lemon vehicles, and in February 2021, the firm filed a lawsuit against GM on his behalf. In response, GM filed an answer, denying that his truck qualified for a repurchase under the Lemon Law.

Approximately two months later, while Ruis was driving on a gravel road at moderate speed, he alleges that the still-unrepaired defects caused him to lose control of the truck. It rolled several times, and he lost consciousness. He was hospitalized and later learned that he had suffered two broken vertebrae in his back and an injured shoulder.

His attorney immediately notified GM about the incident when it happened, but GM nonetheless took no action and refused to offer a refund or replacement vehicle. His case is still pending in court.



Alvin Ruis alleges that GM failed to repair or buy back his GMC Sierra 1500. He was later injured in a rollover crash. Photo courtesy of Alvin Ruis

largest auto safety recall in U.S. history – regarding defective Takata airbags that explode with excessive force and shoot metal shrapnel into drivers' and passengers' faces and torsos, causing blindness, brain injury, and blood loss leading to death – was spread across more than 30 different car brands, including multiple models of vehicles produced by GM, Ford, Fiat Chrysler, Toyota, Mercedes, Nissan,

Honda, BMW and Subaru, spanning more than 10 model years.²⁵

Dangerous cars are not a thing of the past, and strong protections are still needed in a changing car market to help ensure that the cars sold to consumers and small businesses are safe, and that lemon owners are able to seek recourse when they purchase a defective vehicle.

Lemon cars can be a costly and time-consuming burden

In addition to defects that threaten the safety of drivers and the people around them, lemons also represent an unexpected financial and time burden for consumers. In much of the country, and in California in particular, many people live in areas where access to a car is a prerequisite for being able to keep afloat – having transportation for getting to work, school, doctor’s appointments or the grocery store. For these individuals, dealing with a defective car can be highly disruptive, requiring time spent to get a faulty car to a shop and arrange alternative transportation, or doing without their vehicle for prolonged periods.

Many consumers are not in a position to pour more money into unexpected repairs after purchasing a new or recent used vehicle with a manufacturer’s warranty. A car is one of the largest purchases most consumers make in their lifetimes, often sinking them deep into debt.²⁶ In the fourth quarter of 2021, the average loan Americans took out for the purchase of a new vehicle was \$39,721.²⁷

New car prices skyrocketed in 2021. Recent years have seen rapidly increasing car prices, triggered in part by chip shortages and exorbitant pricing by car dealers, which have driven the average new-car price to all-time highs.²⁸ Some franchised car dealers have

charged \$10,000 or more over the manufacturer’s suggested retail price (MSRP) for popular models, especially electric vehicles. According to figures from the market research firm Edmunds, as quoted in the *Washington Post*, “more than 80 percent of U.S. car buyers paid above MSRP in January [2022].”²⁹

With the significant cost burden that vehicle ownership imposes even in the best cases, consumers and small businesses shouldn’t have to wonder if their car purchase may require additional repair costs to fix major latent manufacturing defects, or whether they will have to deal with the hassle of not having their car, SUV, van or truck available for an extended period of time.

Before state Lemon Laws were enacted, auto manufacturers insisted that their only obligation was to “attempt” warranty repairs, leaving angry and frustrated owners of lemon vehicles with faulty, unreliable vehicles that caused tremendous hardship and were often unsafe.³⁰ Lemon Laws have helped change this, allowing consumers to protect themselves from both physical and financial harm when it comes to buying defective cars covered by the manufacturer’s express warranty. Lemon Laws were an important addition to the consumer protection landscape 40 years ago, and they continue to be an important safeguard today.

For 40 years, California's Lemon Law has been a leader nationwide

CALIFORNIA'S LANDMARK AUTO LEMON LAW, enacted in 1982, became the model for similar laws enacted in every state in America. All 50 states now have some kind of Lemon Law on the books, though the level of protection afforded to consumers varies.³¹

California's Lemon Law, later named the Tanner Consumer Protection Act in honor of the author, Assemblymember Sally Tanner, and signed into law by Governor Jerry Brown, amended the Song-Beverly Consumer Warranty Act, resulting in what Lemon Law experts widely considered to be the best recipe for automotive "lemon-aid" in the country. The impetus for the law came from frustrated, irate lemon owners activated by San Diego resident Rosemary Shahan, who called for enactment of a "Lemon Law" while picketing for five months at a car dealership in Lemon Grove.³² (For a more detailed description of the legislative history of the Lemon Law, see Appendix A.)

The Lemon Law created a legal presumption that if an auto manufacturer or its agent for performing repairs (usually a franchised car dealership) tries four times to fix a major problem, or if the vehicle is out of service for 30 days during the (then-typical) warranty period of 12 months / 12,000 miles, the vehicle qualifies as a "lemon," triggering the manufacturer's obligation to buy back the lemon and provide a refund or replacement vehicle.³³ **Before the Lemon Law was enacted, auto manufacturers like Ford claimed that 30 trips to the repair shop might be required to fix a serious problem that arose under the warranty.**³⁴

For decades, the non-profit Consumers for Auto Reliability and Safety (CARS), founded by Shahan, also spearheaded passage of laws to expand and strengthen California's Lemon Law, including the following:

- A 1998 law – unique to California – to prohibit auto manufacturers from being able to silence lemon owners regarding the defects they experienced and how they were treated by the manufacturer.
- A 2000 expansion of the law to cover up to five vehicles purchased for business use and improve protections against lemons with life-threatening safety defects.³⁵
- The 2007 expansion of the law to cover military personnel stationed in or deployed from California, regardless of where they bought their lemons.³⁶

In all, California's Lemon Law offers protections to millions of consumers and small businesses, including:

- About 2 million new car, truck and SUV buyers or lessees each year;
- Millions of used car buyers and owners of older vehicles covered by the manufacturer's warranty;
- More than 157,000 active-duty U.S. military servicemembers and their families;³⁷

- Many millions of small businesses and individual entrepreneurs, including landscapers, florist shops, carpet cleaners, real estate agents, and other businesses with five or fewer vehicles that weigh 10,000 pounds or less;³⁸ and,
- Over 27 million licensed vehicle owners who share the roads with them, along with bicyclists and pedestrians.³⁹

For a detailed look at the history of the Lemon Law in California, see Appendix A on page 25.

Problems with defective vehicles are widespread, but only a small percentage wind up in court

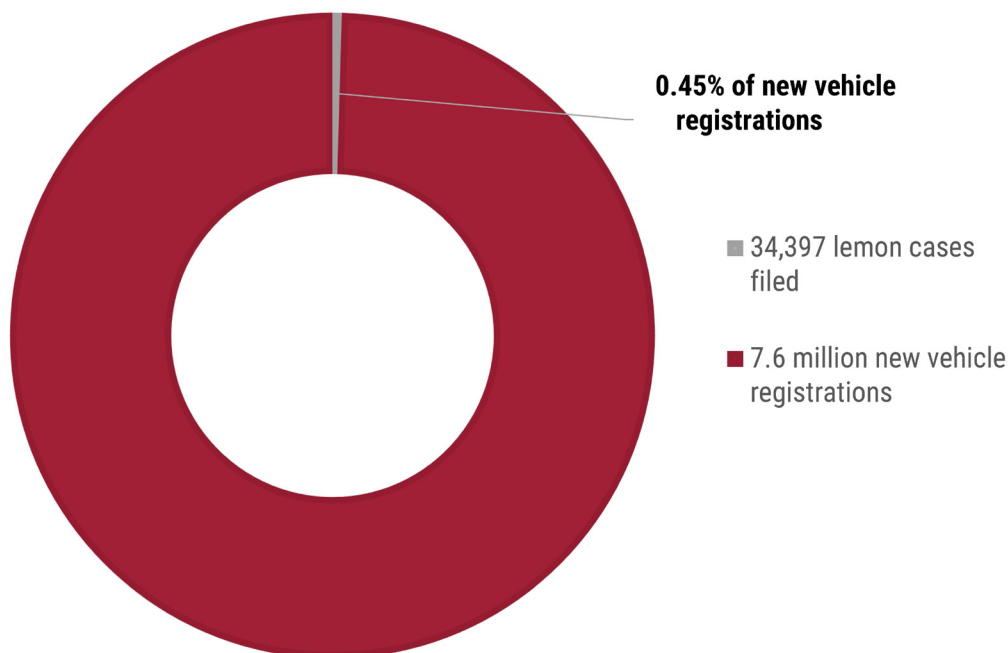
CALIFORNIA'S LANDMARK AUTO LEMON LAW

provides vitally important protections for consumers and small businesses, providing recourse for car buyers when they are saddled with faulty vehicles under warranty that automakers fail to repair. However, a Lemon Law court case is typically a last resort for lemon owners, meaning that problems with defective and dangerous cars are enormously more widespread than the figures presented in this report may suggest. The vast scope of problems with auto reliability and safety makes the protections of California's Lemon Law more important than ever.

Each year, the number of Lemon Law cases filed in California courts represents a small fraction of the state's total car sales. From 2018 through 2021, for example, Californians registered nearly 7.6 million new passenger cars, SUVs and light trucks, but they filed only 34,397 lemon cases in state courts. That is less than half a percent (0.45%) of new vehicles registered during the same period.⁴⁰ (See Figure 1.)

While California's Lemon Law is a boon for consumers, not everyone who purchases a lemon ends up filing a lawsuit.

FIGURE 1. CALIFORNIA LEMON LAW CASES FILED IN COURT, AS A PERCENTAGE OF TOTAL NEW CAR REGISTRATIONS, 2018 - 2021⁴¹



Some automakers produce fewer seriously faulty vehicles and are more responsible in undertaking repair or replacement of lemon vehicles or offering refunds than others. Auto manufacturers that produce safer, more reliable vehicles, as well as those that promptly fix problems that arise during the warranty and satisfy their customers are less likely to end up in court.⁴² The existence of strong Lemon Laws provides an incentive for automakers to produce higher quality vehicles and address problems quickly, benefiting even those consumers who never avail themselves of the law's protections by pursuing litigation.

The length of warranties that auto manufacturers offer can also affect the amount of legal exposure they face under California's auto Lemon Law. When the Tanner Act became law in 1982, the typical new vehicle warranty was 12 months / 12,000 miles.⁴³ But in order to entice car buyers to spend an average of \$47,000 on a product that depreciates drastically as soon as it leaves the car lot, auto manufacturers now offer warranties that last for five, six, or even 10 years.⁴⁴ The longer the warranty, the longer the window for legal action under the Lemon Law.

In addition, many Lemon Law cases are resolved through arbitration – complaints handled outside of the court system. (See “Arbitration affects lemon litigation case numbers, particularly regarding Tesla” on page 21.)

Another reason serious problems with vehicles may not make their way to court under the Lemon Law is that some of them are addressed through mandatory federal safety recalls. Federal law requires auto manufacturers to issue safety recalls and remedy dangerously defective vehicles that fail to comply with federal Motor Vehicle Safety Standards or pose an “unreasonable

risk” to safety.⁴⁵ According to the National Highway Traffic Safety Administration, “all recalls are serious” and many defects that led to safety recalls have caused devastating injuries and/or fatalities.⁴⁶

According to Carfax data, California had 6.3 million vehicles on the roads with unrepaired safety recall defects in 2021 – the most of any state in the nation.⁴⁷ Typical safety recalls include faulty brakes, steering wheels that come off in the driver's hands, engines or batteries that catch on fire, seat belts that fail to work in a crash, hoods that fly up in traffic and obscure the driver's vision, intermittent stalling in traffic, axles that break, transmissions that slip out of gear and cause crashes, and exploding metal Takata airbag housings that shatter into fragments of shrapnel and cause devastating injuries including blindness and blood loss leading to death.⁴⁸ The mandatory recall process is intended to provide a means for consumers to get safety problems quickly repaired, but some lemon owners whose vehicles were recalled by the manufacturer, and who experienced long delays – sometimes many months – in obtaining recall repairs have used California's Lemon Law to obtain refunds or safer replacement vehicles.⁴⁹

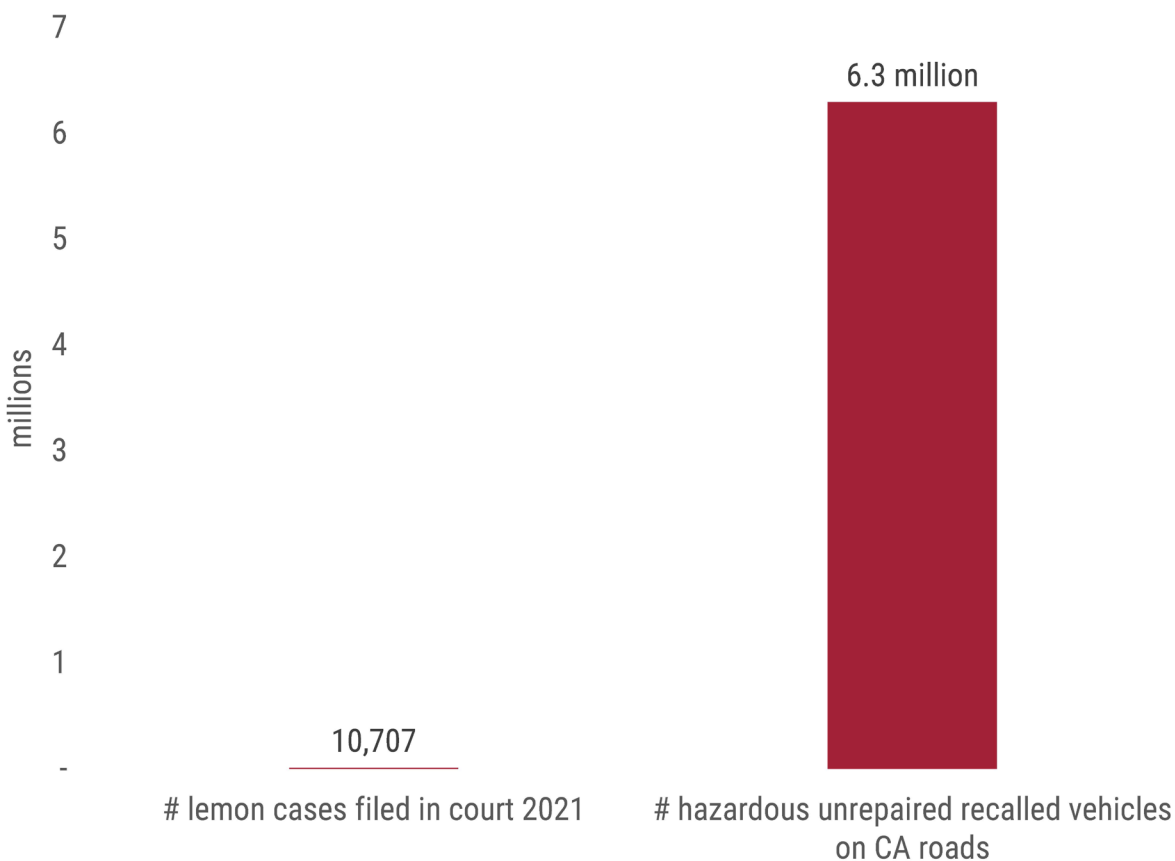
Finally, consumers or business owners who purchase seriously defective vehicles may never talk to an attorney or file a case, even while their vehicle is under the factory warranty. Instead, these consumers put up with the headaches that come with buying a defective car, typically either paying for repairs out of pocket, or trading in their vehicles, usually at a significant loss.

California's Lemon Law is an important tool to protect consumers and the motoring public against faulty vehicles, but the stories of all but a tiny percentage of Californians struggling with dangerous

and costly defective cars are not captured by court records. Despite the millions of defective vehicles on the road, consumers went to court over the purchase of a lemon

just 10,707 times in 2021.⁵⁰ That number is dwarfed by the 6.3 million vehicles on California's roads with unrepaired safety recall defects.⁵¹ (See Figure 2.)

FIGURE 2. LEMON LAW CASES FILED IN CALIFORNIA COURTS VERSUS CARS WITH UNREPAIRED SAFETY RECALL DEFECTS ON CALIFORNIA ROADS, 2021⁵²



Toyota vehicles are the least frequent targets of California Lemon Law cases; General Motors vehicles are the most frequent

RESEARCH INTO CALIFORNIA STATE electronic court filings provides an unprecedented view into how likely California consumers are to wind up in court after purchasing a car, SUV or light truck from different auto manufacturers. Not every complaint about defective vehicles winds

up in court, and nearly all Lemon Law cases that are filed are settled out of court.⁵³ But court filings show big differences among automakers in the frequency with which consumers file suit against the manufacturers for producing and failing to promptly fix lemon cars.

FIGURE 3. CARS SOLD PER LEMON LAW CASE, 2018 - 2021⁵⁵

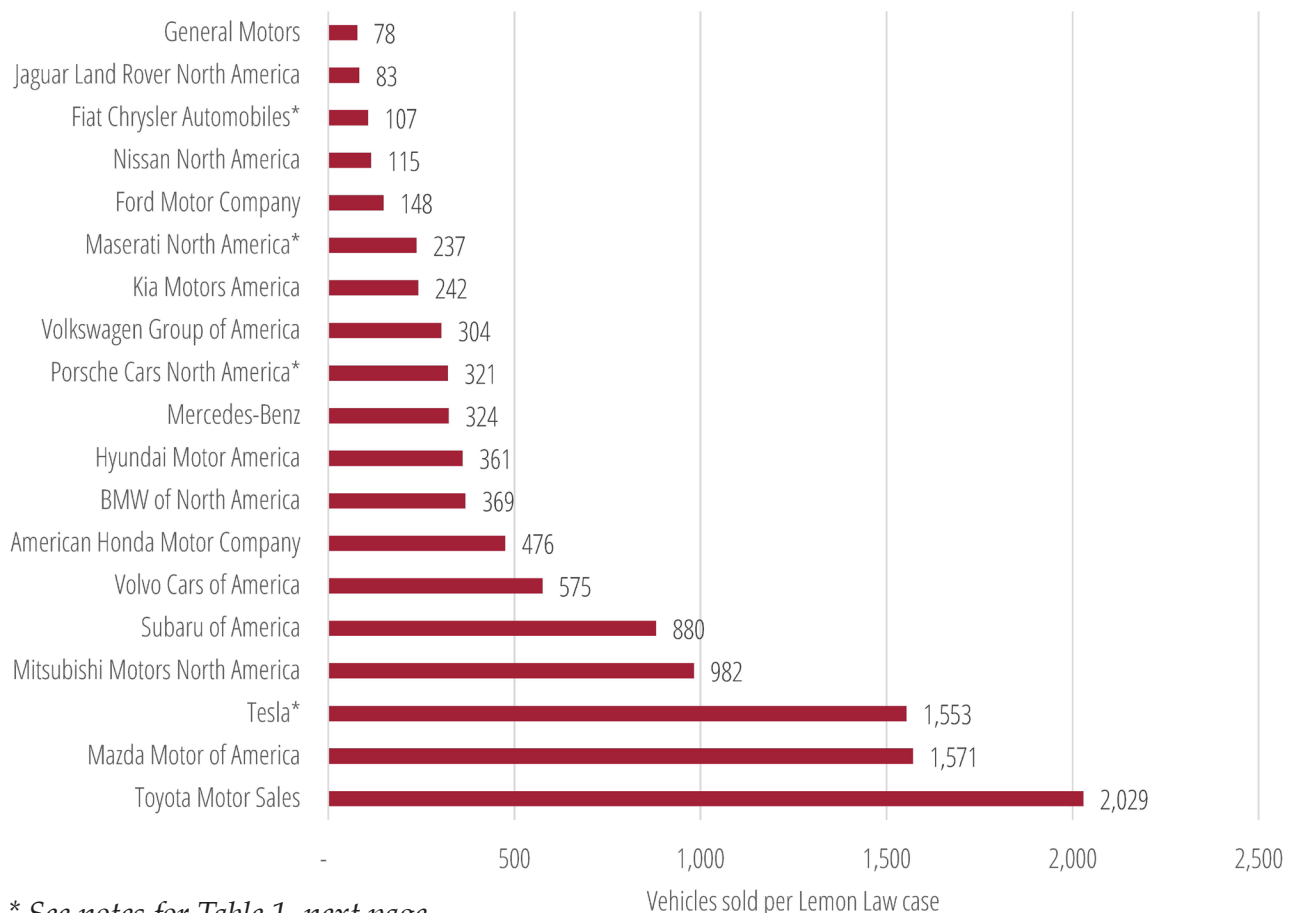


TABLE 1. SUITS AGAINST AUTO MANUFACTURERS UNDER CALIFORNIA LEMON LAW, 2018 - 2021⁵⁶

Parent company	Cars sold per lemon case	Total vehicle registrations, 2018-2021	Total lemon cases filed	% of lemon cases filed
General Motors	78	771,809	9,892	29.0%
Jaguar Land Rover North America	83	85,087	1,021	3.0%
Fiat Chrysler Automobiles*	107	618,355	5,798	17.0%
Nissan North America	115	493,957	4,308	12.6%
Ford Motor Company	148	686,045	4,621	13.5%
Maserati North America*	237	6,860	29	0.1%
Kia Motors America	242	276,403	1,144	3.4%
Volkswagen Group of America	304	331,614	1,091	3.2%
Porsche Cars North America*	321	58,814	183	0.5%
Mercedes-Benz	324	300,175	927	2.7%
Hyundai Motor America	361	274,144	760	2.2%
BMW of North America	369	295,953	803	2.4%
American Honda Motor Company	476	963,390	2,026	5.9%
Volvo Cars of America	575	51,758	90	0.3%
Subaru of America	880	290,557	330	1.0%
Mitsubishi Motors North America	982	30,435	31	0.1%
Tesla*	1,553	337,077	217	0.6%
Mazda Motor of America	1,571	175,930	112	0.3%
Toyota Motor Sales	2,029	1,527,887	753	2.2%
Total*	222	7,576,250	34,136	

Notes: Total excludes 261 cases filed against smaller vehicle manufacturers. Porsche and Maserati are part of larger automakers (Volkswagen and Fiat Chrysler, respectively) and cases listed here are only those for which the subsidiary brands are listed as defendants. Tesla Motors primarily sells vehicles directly to consumers and its case numbers may be affected by its use of arbitration, see page 21. Fiat Chrysler became part of Stellantis in 2021.

From 2018 through 2021, Toyota was taken to court the least often – and General Motors the most often – relative to their market share for allegedly producing and failing to repair or provide refunds or replacements for lemon vehicles.⁵⁴ A review of 34,397 lemon lawsuits filed in California state courts from 2018 through 2021 reveals that **Toyota was taken to court under the Lemon Law only once for every 2,029 new Toyota vehicles registered in the state.** On the other end of the spectrum, **General Motors became the subject of lemon litigation once for every 78 new GM vehicles registered in California.** Consumers who purchased GM vehicles were approximately 26 times as likely to file a lemon lawsuit as consumers who purchased Toyotas.

Toyota's ranking for the lowest number of Lemon Law cases per vehicle sold may be a reflection of its longstanding reputation for

quality. Toyota and its luxury Lexus brand regularly rank near the top of J.D. Power's annual vehicle dependability study.⁵⁷ According to *Consumer Reports*, "Toyota builds solid, efficient and reliable vehicles ... Overall reliability for the brand continues to be superb."⁵⁸

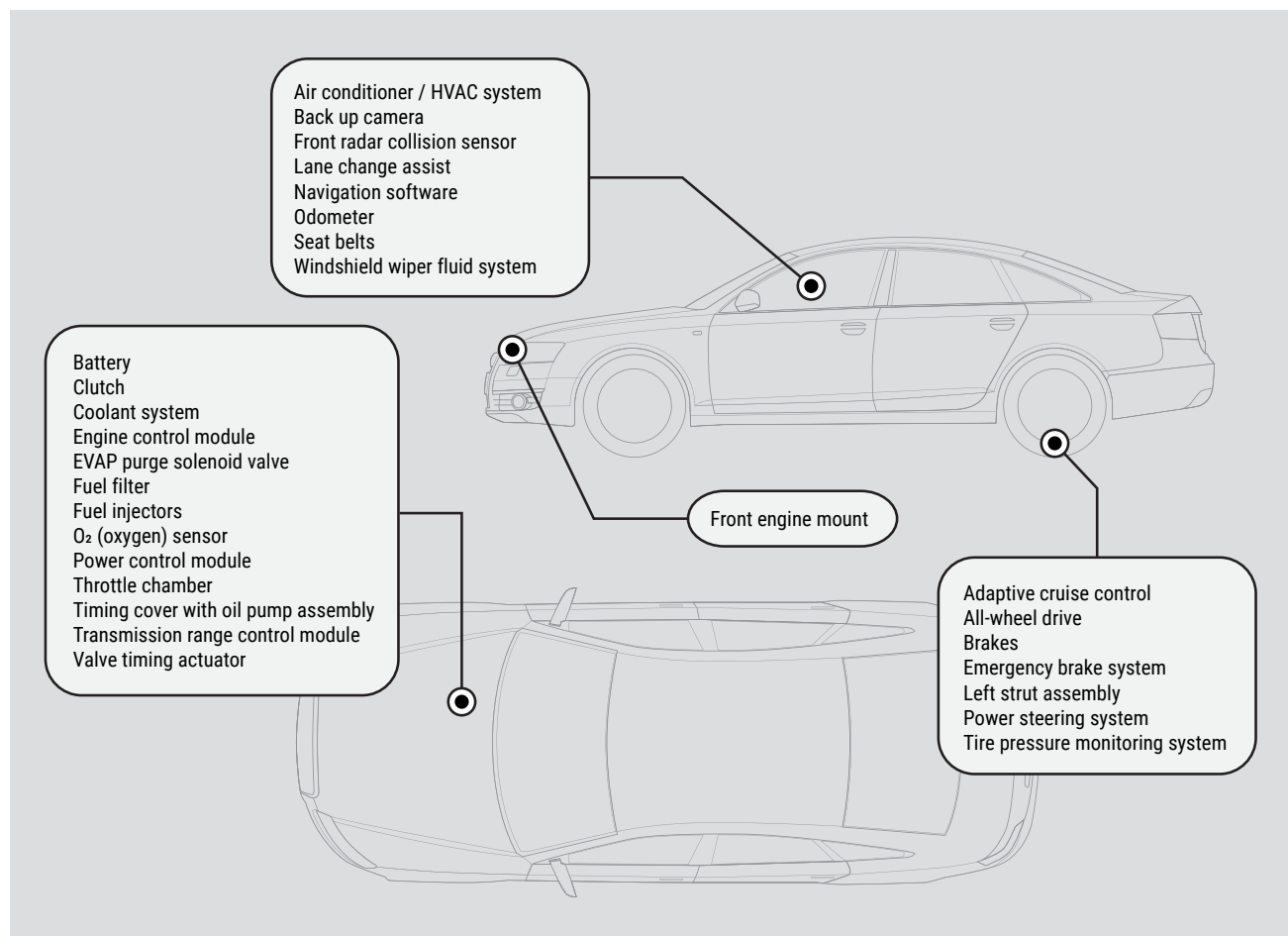
Lemon cases filed in California and included in this analysis represent both consumer and commercial litigation, cases regarding both new cars and used cars still under warranty, and leases. Some defendants are alleged to have refused to repair the defective car in question, while others refused to refund the purchase price after attempting to fix the vehicle and failing to do so in a timely manner, as required by the Lemon Law. Lemon litigation is sometimes combined with fraud or misrepresentation charges in cases where a vehicle was knowingly sold with serious defects that weren't disclosed to the buyer.

Consumers filing Lemon Law litigation report a wide array of vehicle defects

CONSUMERS WHO PURSUED LEMON litigation in California for a defective car from 2018 through 2021 experienced a variety of issues, ranging from defects such as an information screen that displays everything upside down to loss of power while being driven in traffic. In some cases, cars were sold with unrepaired safety recalls, including batteries prone to catching fire if fully charged, and exploding Takata airbags. Often, consumers faced multiple problems with their cars by the time they

pursued litigation. For example, one case filed in 2021 pertained to a subcompact sport utility vehicle with “shaking, power loss, cylinder misfiring ... excessive oil consumption and check engine light illumination defects.”⁵⁹ Another case involved a 2018 compact car that contained defects with the “engine, air filter, [and] wrench light illumination” as well as “a thump sound from the vehicle while driving ... loss of power while driving, smoke emitting from the vehicle, and stalling.”⁶⁰

FIGURE 4. SAMPLE OF DEFECTIVE PARTS CALIFORNIANS WENT TO COURT OVER IN 2021



Narratives from lemon owners

The following narratives are about real Californians who used the Lemon Law to protect themselves from defective cars.⁶¹

Failed backup camera on a new 2020 Ford Edge FWD SEL

On March 27, 2020, Lawrence and Bonnie Shanahan leased a new 2020 Ford Edge FWD SEL from Fiesta Ford in Riverside County. The price of the lease included Ford's 3-year 36,000 mile "bumper-to-bumper" warranty as well as a 5-year, 60,000-mile powertrain warranty.

When there were only 3,416 miles on the odometer, the federally mandated backup camera, which is supposed to help prevent low-speed collisions by allowing drivers to see small children and objects otherwise obscured by the vehicle itself, failed. The screen went totally blank.

At the time, Mr. Shanahan was backing up slowly in his residential community. When the camera failed, he backed into a metal bar protruding from a truck behind the driveway, which easily would have been visible with a functioning backup camera.

Until that incident, Mr. Shanahan had a spotless driving record. Despite the failure of the backup camera, Ford refused to pay for the repairs to fix the damage to the vehicle. The Shanahans had to pay a \$2,000 deductible and their insurance rates went up.

Three weeks after they got the vehicle back from Fiesta Ford for warranty repairs, and from Fiesta Ford's body shop for the collision damage repairs, the Shanahans received a safety recall notice from Ford that said:

Compliance Recall Notice 20C19 / NHTSA Recall 20V-576 ... Ford Motor Company has determined that your vehicle ... fails to conform to

PROBLEMS REPORTED IN LEMON LAW LITIGATION IN 2021 (PARTIAL LIST)

"Jerking"

"Loss of power"

"Rear hatch does not open or close with kick feature"

"Severe vibration and shuddering during idle"

"Harsh shifting"

"Hesitation defects causing the vehicle to lurch between gears"

"Vehicle shuts off randomly"

Federal Motor Vehicle Safety Standard (FMVSS) number 111 – Rear Visibility. ... On your vehicle, the rear view camera could intermittently display a blank or distorted image. [This defect] may reduce the driver's view of what is behind the vehicle, increasing the risk of a crash.

The federal requirement for auto manufacturers to install backup cameras was in response to years of heartbreaking tragedies involving parents who inadvertently backed up over their own toddlers, who were not visible to a parent in the driver's seat without the addition of that simple lifesaving technology.

The Shanahans took the vehicle back to Fiesta Ford for the safety recall repairs, which Ford was required by federal law to provide at no cost to the Shanahans. They were assured that the problem was fixed. But nine days later, the backup camera failed again. Warning lights began lighting up on

the dashboard. Other electrical problems surfaced. The dealership replaced a blown fuse and three fuse harnesses. But intermittent electrical defects continued to occur.

During the first year of their lease, the Shanahans returned the Edge to Fiesta Ford at least five times for repairs to fix the safety defects, and the vehicle was in the repair shop for a total of more than 48 days.

Finally, in early February 2021, the Shanahans lost confidence in the car and stored it in a garage. They notified Ford that they wanted a refund or replacement, but Ford refused. They finally hired a law firm that specializes in Lemon Law litigation.

Mr. Shanahan is elderly and has serious health concerns stemming from cancer treatments. Under California law, elderly people and those with serious health complications may request an expedited trial schedule, to speed up the legal process. When Mr. Shanahan made the request, Ford refused to agree, forcing his attorneys to have to file a motion to avoid prolonged litigation. Ford also continued to stonewall until the eve of when a trial was scheduled, when they finally offered the couple a refund for their unsafe lemon car.

Faulty electronics in a Chrysler minivan

In October 2019, Michael Farro, who lives in Los Angeles, purchased a new 2019 Chrysler Pacifica minivan for his family's use that came with an express warranty from Fiat Chrysler that lasted for 36 months or 36,000 miles.

The very same day he bought the car, it experienced major electrical problems. In fact, the battery needed to be repaired before Farro could drive the minivan off the lot. He took the faulty vehicle back to the authorized dealership for repairs at

least seven times, and it was out of service for at least 43 days. Six of these visits occurred during the "Lemon Law presumption" period of 18 months / 18,000 miles.⁶²

But the problems persisted, affecting vital systems, such as the auto stop-start, the brakes, and the battery, which continued to be unreliable. Ultimately, the minivan was never properly repaired and was unsafe to drive.

Farro repeatedly contacted Fiat Chrysler for help, and requested a refund or replacement vehicle, but Fiat Chrysler refused. After years of being stuck with a grossly unreliable lemon, Mr. Farro hired a law firm that specializes in representing owners of lemon vehicles. He submitted his case to the dispute resolution program that Fiat Chrysler funds to handle Lemon Law complaints. At a November 16, 2021, hearing, the arbitrator examined the evidence, and heard statements from him and the attorneys for both sides. Shortly afterward, the program issued a decision in favor of Farro, agreeing that the minivan was a lemon, and ordering Fiat Chrysler to provide a refund within 30 days. The next day, Farro accepted the decision, in writing.

Under the rules that govern Lemon Law dispute resolution programs, whenever a lemon owner accepts the decision, auto manufacturers are required to comply within 30 days. But more than a month later, Fiat Chrysler had still failed to comply. On December 27, 2021, Farro's attorneys filed a lawsuit under California's auto Lemon Law seeking to enforce his Lemon Law rights. It took almost another month after the lawsuit was filed until Fiat Chrysler finally complied with the decision rendered by its own dispute settlement program.

Tesla “falcon wing” door problems lead to prolonged repair fight

On June 29, 2017, Alicia Rebuelta, who lives in the Bay Area, purchased a brand new 2017 Tesla Model X, for a purchase price of \$118,469. Soon afterward, she and her husband, who also drove the car, began to experience serious defects, including malfunctioning “falcon wing” doors, windows that failed to open or close, and intermittent problems with the computer systems that control major aspects of the car’s performance.

Other purchasers of Teslas with “falcon wing” doors have complained bitterly about them online, posted videos, and claimed to have filed warranty complaints with Tesla.⁶³ According to one report on the auto website *Motor Biscuit*:

Tesla marketed its rear-passenger falcon-wing doors as an easy way to get family members situated inside the vehicle. The doors open upward instead of outward, providing better access to the rear rows. However, some owners have discovered that the doors can’t even open all the way. And sometimes, the doors seem to have minds of their own, closing and opening randomly. One door might close properly, while the other remains open.⁶⁴

The Rebueeltas took their Model X back to Tesla on at least five occasions, seeking repairs under Tesla’s warranty. However, the repair attempts failed to fix the problems, which persist to this day.

The Rebueeltas are very unhappy with their car and concerned about its safety. Frustrated by Tesla’s failure to fix the problems, they requested a refund from Tesla, but Tesla refused. Finally, they hired a law firm that specializes in representing lemon owners against auto manufacturers. On July 30, 2018, the law firm filed a lawsuit on their behalf, seeking a refund and a civil penalty of up to double their damages.

Tesla responded by filing a motion to have their lawsuit moved out of the public court system, where judges are sworn to uphold the law, to a privatized arbitration system that typically doesn’t include many of the safeguards built into the court system, hides its rulings from public scrutiny, and in which the deck is usually stacked against consumers. Plus, consumers who lose cannot file an appeal.⁶⁵

It has now been more than three and a half years since their lawsuit was filed, and so far, their case hasn’t even been heard, so their case remains unresolved.⁶⁶

ARBITRATION AFFECTS LEMON LITIGATION CASE NUMBERS, PARTICULARLY REGARDING TESLA

As explained above, the number of lawsuits filed under the Lemon Law is far lower than the number of lemon vehicles sold to California consumers. There are millions more seriously defective vehicles being driven on California's freeways than court records capture. Another important reason for this gap is the use of a rigged, privatized system called "arbitration" that allows automakers to avoid accountability under consumer protection laws.⁶⁷ Differences in the frequency with which lemon disputes find their way to arbitration may be one factor in variations in Lemon Law cases across manufacturers, particularly for Tesla.

Arbitration clauses appear in many kinds of consumer contracts and deny consumers their constitutional right to have their case heard in an open, public court of law by requiring them to submit future disputes to an arbitration process paid for by the company that harmed them. Instead of these cases being heard by a judge who is sworn to uphold the law, or a jury of citizens who are instructed to uphold the law, they are instead heard by a private arbitrator or panel of arbitrators who often rule in favor of the company that pays for the process. Usually, consumers also lose their right to appeal a bad decision.⁶⁸

Many state Lemon Laws require lemon owners to submit their disputes to biased arbitration programs that have an obvious conflict of interest, since the auto manufacturers pay for the process. But in California, thanks to decades of hard-fought battles by consumer groups, lemon owners generally remain free to choose to file a legal case in a public court of law.

The role of arbitration is particularly important to understand regarding Tesla. Because Tesla doesn't have franchised car dealerships and sells vehicles directly to consumers and small business owners, Tesla is in a unique position to impose arbitration to contend with lemon disputes. Tesla exploits this advantage by including arbitration clauses in its sales contracts, affecting its numbers in this report's analysis. Any consumer purchasing a Tesla must sign a Motor Vehicle Order Agreement, which includes an "agreement to arbitrate" clause.⁶⁹ This clause states that, unless consumers opt out of arbitration by mailing Tesla a letter within 30 days of purchasing the vehicle, the consumer agrees to using arbitration – instead of being able to use the Lemon Law in court – to reach a resolution.⁷⁰ Chances are that very few Tesla owners take the formal step of opting out of arbitration, especially not in time to preserve their access to court.

Some Lemon Law cases are still filed against Tesla in California courts, as the analysis in this report shows. This is in part because consumers who have completed the process to opt out are able to take Tesla to court for Lemon Law violations. Other cases may be a result of Tesla having failed to meet a deadline within the arbitration process, allowing a consumer to then pursue their Lemon Law rights in court. Nevertheless, because the company is uniquely able to avoid Lemon Law litigation by imposing arbitration on its customers, the relatively low number of lemon cases filed in relation to Tesla's market share should not necessarily be taken as an indicator of superior vehicle quality.

| Conclusions and recommendations

A CONSUMER WHO BUYS A CAR AND pays for a warranty issued by the manufacturer expects it to be safe and functional, not riddled with defects that are expensive and time-consuming to fix, or worse, downright dangerous. Lemon Laws provide these consumers with valuable protections, ensuring that no consumer buying a defective car that is covered by the manufacturer's warranty is left without an avenue for recourse.

A review of lemon litigation cases filed in California state courts from 2018 through 2021 found that Toyota was the least likely to be taken to court for violating the Lemon Law relative to its share of the automobile market, while General Motors was the most likely. Consumers shopping for vehicles may want to be aware of their likelihood of ending up in court over a lemon car when making purchase decisions.

California's Lemon Law is a historic piece of legislation, setting an example emu-

lated by many states. The landmark auto Lemon Law provides vital protections for millions of consumers, small businesses, individual entrepreneurs, military personnel and their families, and others with whom they share the roads. The Lemon Law also helps provide good-paying jobs for thousands of skilled automotive technicians and software engineers, workers who produce replacement parts, employees who work at parts distribution centers, and others in the supply chain. **Attempts to weaken the law should be rejected, and the law should be preserved.**

Dangerous cars can cost lives. While most cars have gotten safer over time, particularly with the adoption of newer safety features, the Lemon Law remains a crucial part of the consumer protection landscape.⁷¹ Defective cars are still an unfortunate fact of life, making California's Lemon Law just as essential as it was when it was enacted 40 years ago.

| Methodology

THE DATA FOR THIS REPORT'S ANALYSIS

consists of two parts: records of Lemon Law litigation cases filed in California state courts, and new vehicle registrations in California. The time period covered in the data of both sources is four years, from 2018 through 2021.

New vehicle registration data can be found in *California Auto Outlook*, published by the California New Car Dealers Association (CNCDA).⁷² Annual new vehicle registrations for 2018 were pulled from Volume 16, Number 1 of *California Auto Outlook*, which was published in February 2020. Annual new vehicle registrations for 2019 and 2020 were pulled from Volume 17, Number 1, released February 2021. Annual new vehicle registrations for 2021 were pulled from Volume 18, Number 1, released February 2022. New vehicle registrations were used as the closest approximation to sales numbers that researchers were able to access. It's likely some small percent of registrations are captured in the data as having happened in a different year than the purchase of the car, as registrations for new car purchases can take as many as 40 days to process.⁷³ However, using registrations as an approximation for sales data still allows for a useful analysis.

Data for the analysis of Lemon Law litigation cases comes from Courthouse News Service's CasePortal database. Searches were limited to cases filed between 2018 and 2021, and the search results were downloaded as CSV files. Cases were selected from the database if they related to "Lemon Law," warranty cases, or failure to make repairs in which the names of automakers were listed as defendants.

From there, unrelated and duplicate cases were removed from the dataset, including:

- Cases unrelated to motor vehicles.
- Cases that did not include a manufacturer as a defendant. (This includes cases in which car dealerships or automakers' financing arms were listed as defendants without a manufacturer listed.)
- All federal cases.

The following records were flagged as duplicates and the duplicate cases removed:

- Cases with identical case numbers.
- Cases transferred within the California court system.
- Cases that involved the same plaintiffs, the same defendants and the same lawyers were assumed to be duplicates, unless there was an indication that the two cases related to different vehicles.

Due to the limitations of the data cleaning methods used, a small number of duplicate or inappropriate records may remain. (For example, it was impossible to identify duplicates involving variations in the spelling of plaintiffs' names.) In addition, it is possible that the method for identifying duplicates described above may have captured a small number of non-duplicate records.

The new vehicle registration data were presented by brand, whereas the defendants in Lemon Law cases accessed through the CasePortal are typically parent companies (e.g., "Acura" vs. "American

Honda Motor Company.”) To allow for the calculation of lemon cases by market share, brands were associated with parent company automakers as shown in Appendix B. Note that some subsidiary firms (e.g., Porsche and Maserati), were named as defendants in a significant number of lemon cases and are listed individually in this report. However, there may be other cases related to vehicles made by these manufacturers that are included in the totals for their parent companies.

“Other” lemon litigation cases

Of the 34,397 total number of lemon cases presented in this report for 2018-2021, 261 cases are excluded from Table 1 (“Suits against auto manufacturers under California Lemon Law, 2018-2021”). These represent cases where the defendant was a smaller auto manufacturer for which no registration data was available in the CNCDA data (such as Suzuki, Aston Martin and Rolls Royce), or represented other types of vehicles covered by California’s Lemon Law that were also not available in CNCDA data (such as motorcycles made by Harley Davidson or Kawasaki, or RVs like those manufactured by Winnebago).

Appendix A: California's auto Lemon Law: Legislative highlights

CALIFORNIA'S LANDMARK AUTO

Lemon Law, enacted in 1982, became the model for similar laws enacted in every state in America. The Lemon Law amended an earlier warranty law that was seldom used in court.

1970: Governor Ronald Reagan signs the Song-Beverly Consumer Warranty Act.⁷⁴ The Act requires manufacturers of all consumer products purchased or leased in California and “used or bought for use primarily for personal, family, or household purposes” to do the following:

- Honor their express warranties, for as long as those warranties last, regardless of whether the product is purchased “new” or “used”;
- Provide adequate repair parts and facilities for making the repairs necessary in order to live up to their warranties;
- “Promptly” provide refunds if they fail to fix major problems after a “reasonable number” of repair attempts;
- Pay reasonable attorney fees for wronged consumers who use Song-Beverly and prevail.

The Song-Beverly Act also provides for a discretionary civil penalty of up to double the wronged consumer's damages for willful violations, creating an important incentive for manufacturers to comply with the law. However, lemon owners rarely used the law, largely due to uncertainty over what qualifies as a “reasonable number” of repair attempts.

1979: While picketing for five months at a car dealership near San Diego, after the dealership failed to repair her damaged car for three months and threatened to put bad parts in her car if she complained, Rosemary Shahan hears horror stories from irate, frustrated lemon owners stuck with faulty, often dangerous, cars. She decides the law needs to be changed and passes out fliers and organizes media events, calling for passage of a “Lemon Law” and urging frustrated lemon owners to write to Assemblymember Bill Lockyer, Chair of the Assembly Committee on Consumer Protection. Lockyer responds that he's receiving a “great deal of mail from San Diego in support of a ‘lemon’ law,” and schedules a legislative hearing in San Diego.⁷⁵

At the hearing, legislators ask auto manufacturers what they consider to be a “reasonable number” of repair attempts. A representative for Ford Motor Company shocks the audience when he testifies that “there are times when 30 visits [to the repair shop] may be required to solve the problem.”⁷⁶ Soon after hearing this revealing testimony, Assemblymember Sally Tanner introduces legislation to create a legal presumption that “reasonable” is four tries or a total of 30 days out of service during the typical 12 month / 12,000-mile warranty period.

Shahan settles with the car dealership that failed to fix her car and founds the non-profit organization Motor Voters (later re-named the Consumers for Auto Reliability and Safety Foundation), enlisting San Diego area consumer advocates who volunteer to serve as board members. For the

next three years, Shahan and Motor Voters work with Tanner and her excellent staff for passage of the law, building coalitions, mobilizing support, generating news coverage to amplify lemon owners' voices, helping draft amendments, testifying in Sacramento at legislative hearings, and working to overcome auto manufacturers' opposition.

1982: On July 7, after three years of legislative battles, Governor Jerry Brown signs California's landmark auto Lemon Law, AB 1787, hosting a signing ceremony where he pours "lemon-aid" for attendees, including the proud author, Assemblymember Sally Tanner, and Shahan, as well as key staffers and other supporters. Years later, the law is named the "Tanner Consumer Protection Act," in honor of its leading legislative champion, who worked tirelessly for its passage.⁷⁷

Early 1990s: Auto manufacturers and motor home manufacturers attempt to weaken California's recipe for automotive lemon-aid. One bill, authored by Assemblymember Jackie Speier and backed by the auto industry, would have eliminated the discretionary double civil penalty for willful violations of the Lemon Law.⁷⁸ Speier also authored another bill, backed by auto dealers and manufacturers, to create loopholes for engaging in "lemon laundering" – deceptively marketing repurchased lemons to used car buyers without repairing the defects.⁷⁹ Shahan fights back and mobilizes opposition, including dumping 800 pounds of lemons at the Capitol in Sacramento to protest the attacks on California's Lemon Law. The anti-consumer bills are either defeated or amended so as to actually improve the law.

1998: Consumers for Auto Reliability and Safety (CARS), a non-profit auto safety and consumer advocacy organization founded by Shahan, leads passage of first-in-the-nation legislation (AB 2410), authored by

Assemblymember Kevin Shelley, to prohibit auto manufacturers from forcing lemon owners to sign confidentiality agreements (except regarding the terms of any settlement) as a condition of repurchasing their lemon vehicles.⁸⁰ The law preserves lemon owners' First Amendment rights to tell the truth about their experiences, including what defects existed in their lemons and how they were treated by the manufacturer and dealer. This helps preserve the Lemon Law and also makes important information available to subsequent owners of the same lemon vehicles, helping discourage "lemon laundering" of repurchased lemon cars.⁸¹

1998: Assemblymember Susan Davis authors legislation (AB 1848) to expand California's Lemon Law protections to include small businesses and individual entrepreneurs who own up to five vehicles and use them for both personal and business purposes ("mixed" use).⁸² CARS and other consumer groups join in supporting passage.

1998: Legislation (AB 2277) would have drastically reduced the amount owners of lemon motor homes could receive as refunds, doubled the amount of time for repairs from 30 days to 60 days out of service for the Lemon Law presumption to apply, and also would have required them to submit to a "final repair attempt" that could be in another state.⁸³ The bill was defeated.

1999: Assemblymember Susan Davis authors legislation (AB 1290), sponsored by California's attorney general, to change the lemon law "presumption" period from 12 months / 12,000 miles to 18 months / 18,000 miles.⁸⁴

2000: CARS leads passage of legislation, authored by Senator Byron Sher (SB 1718) to expand California's Lemon Law protections to include small businesses and individual entrepreneurs who own up to five vehicles

weighing less than 10,000 pounds and used primarily for business purposes.⁸⁵ The new law also provides owners of vehicles with life-threatening safety defects better protection, by creating a legal presumption they are entitled to a refund or replacement after two failed repair attempts, instead of four.⁸⁶

2002: California celebrates the 20th anniversary of Governor Jerry Brown's signing of the Lemon Law / Tanner Consumer Protection Act. Former Assemblymember Sally Tanner, retired and living in Ferndale, celebrates with Shahan, former staffers, other legislators and supporters at public events at the Capitol in Sacramento hosted by the California Department of Consumer Affairs. Staff who oversee the Department's Lemon Law Arbitration Certification Program hand out bright yellow "stress balls" in the shape of lemons commemorating the anniversary.

2007: CARS leads the successful fight to expand California's Lemon Law to protect members of the military serving in the U.S. Armed Forces and stationed in, or deployed from, California – regardless of where they purchased their lemon car. The legislation (SB 234), authored by Senator Ellen Corbett, passes unanimously and is signed into law by Governor Arnold Schwarzenegger, despite behind-the-scenes opposition from auto manufacturers.⁸⁷

2007 – today: Some auto manufacturers continue to attempt to weaken California's Lemon Law, attacking the law in the legislature and the courts. So far, CARS and coalition allies have been successful in fending off their attacks in the legislature, and have won numerous court battles, including before the California Supreme Court.

Appendix B: Automakers and their subsidiary brands

TABLE B-1. AUTOMAKERS AND THEIR SUBSIDIARY BRANDS⁸⁸

American parent company	Subsidiary brands included in analysis
American Honda Motor Company	Acura, Honda
BMW of North America	BMW, MINI
Fiat Chrysler Automobiles	Alfa Romeo, Chrysler, Dodge, FIAT, Jeep, Ram
Ford Motor Company	Ford, Lincoln
General Motors	Buick, Cadillac, Chevrolet, GMC
Hyundai Motor America	Genesis, Hyundai
Jaguar Land Rover North America	Jaguar, Land Rover
Kia Motors America	Kia
Maserati North America	Maserati
Mazda Motor of America	Mazda
Mercedes-Benz	Mercedes
Mitsubishi Motors North America	Mitsubishi
Nissan North America	Infiniti, Nissan
Porsche Cars North America	Porsche
Subaru of America	Subaru
Tesla	Tesla
Toyota Motor Sales	Lexus, Toyota
Volkswagen Group of America	Audi, Volkswagen
Volvo Cars of America	Volvo

Notes

1 California Civil Code Section 1793.22 through 1793.26.

2 Model: Connecticut and California adopted the nation's first Lemon Laws in 1982, which subsequently became models for other state legislation: Elizabeth Vollmar, "Lemon laws: Putting the squeeze on automobile manufacturers," *Washington University Law Review*, 61(4): 1125-1163, January 1984, note 119, archived at https://web.archive.org/web/20220428140014/https://open-scholarship.wustl.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=2331&context=law_law-review.

3 See Appendix A for a legislative history of the Lemon Law.

4 A recent appellate court decision (*Rodriguez v. Fiat Chrysler*) found that some used vehicles sold with a manufacturer's warranty may not be covered by the Lemon Law. However, longstanding legal precedents hold otherwise, and the attorneys for Mr. Rodriguez are seeking review by the California Supreme Court.

5 See methodology for sources and description of analysis.

6 See methodology for sources.

7 6 million: Carfax, "CARFAX numbers show one in five vehicles on the road has an open safety recall" (press release), *PR Newswire*, 27 April 2021, available at <https://www.prnewswire.com/news-releases/carfax-numbers-show-one-in-five-vehicles-on-the-road-has-an-open-safety-recall-301278088.html>.

8 See methodology.

9 See methodology.

10 Severe shortage of qualified technicians: TechForce Foundation, *TechForce Report Reveals Demand for Vehicle Technicians Continues to Outpace Supply by Nearly 3 to 1*, press release, 31 August 2020,

11 See note 7.

12 See Jonathan Sundby, Adam Garber and Rosemary Shahan, CARS Foundation, U.S. PIRG Education Fund and Frontier Group, *Unsafe Used Cars for Sale: Unrepaired Recalled Vehicles at AutoNation Dealerships*, October 2019; Justin Owen, "The deadliest car recalls in history," *SlashGear*, 19 January 2022, archived at <https://web.archive.org/web/20220315134601/https://www.slashgear.com/the-deadliest-car-recalls-in-history-17707543>; Joseph Rhee and Brian Ross, "Father killed in crash of Windstar van after Ford resisted safety recall," *ABC News*, 21 December 2010, accessed at <https://abcnews.go.com/Blotter/defect-ford-windstar-van-fatal-crash-500000-vans/story?id=12452339>.

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14 "Insist": Elizabeth Vollmar, "Lemon laws: Putting the squeeze on automobile manufacturers," *Washington University Law Review*, 61(4): 1125-1163, January 1984, note 12, archived at https://web.archive.org/web/20220428140014/https://open-scholarship.wustl.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=2331&context=law_law-review.

15 The consumer narratives in this report are based on information provided by attorneys for the consumers, derived from legal documents filed in court, and approved by the consumers themselves.

16 Consumers for Auto Reliability and Safety, *Stop the Attack on California's Auto Lemon Law*, accessed on 10 November 2021, accessed at <https://www.carconsumers.org/lemonlaw.htm>; National Highway Traffic Safety Administration, *Vehicle Safety Recalls Week*, accessed 15 March 2022, archived at <https://web.archive.org/web/20220315125634/https://www.nhtsa.gov/recalls/vehicle-safety-recalls-week>.

17 California Department of Justice, *Buying and Maintaining a Car*, undated, archived 28 April 2022 at <https://web.archive.org/web/20220428141051/https://oag.ca.gov/consumers/general/cars>.

18 See Vachon Law Firm, *Defects Covered by California's Lemon Law*, accessed at <https://www.thelemonlawcalifornia.com/lemon-law-2/defects-covered/>, 28 February 2022.

19 Examples taken from Lemon Law cases filed in 2021, sourced as described in the methodology.

20 See note 15.

21 "Safety has improved": See dramatic improvement in vehicle safety from 2000 to 2008 in National Highway Traffic Safety Administration, *An Analysis of Recent Improvements to Vehicle Safety*, June 2012, archived at <https://web.archive.org/web/20220423084136/https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/811572>; role of Motor Vehicle Safety Standards in improved safety: Charles J. Kahane, *Lives Saved by Vehicle Safety Technologies and Associated Federal Motor Vehicle Safety Standards, 1960 to 2012 – Passenger Cars and LTVs*, National Highway Traffic Safety Administration, undated, archived at <https://web.archive.org/web/20220120170550/https://www-esv.nhtsa.dot.gov/Proceedings/24/files/24ESV-000291.PDF>.

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25 Takata descriptor: Jonathan Sundby, Adam Garber and Rosemary Shahan, CARS Foundation, U.S. PIRG Education Fund and Frontier Group, *Unsafe Used Cars for Sale: Unrepaired Recalled Vehicles at AutoNation Dealerships*, October 2019, <https://frontiergroup.org/sites/default/files/reports/USP%20AutoNation%20Report%20Oct15.pdf>; 30 different car brands: Clifford Atiyeh and Rusty Blackwell, "Massive Takata airbag recall: Everything you need to know, including full list of affected vehicles," *Car and Driver*, 21 April 2021, <https://www.caranddriver.com/news/a14499263/massive-takata-airbag-recall-everything-you-need-to-know-including-full-list-of-affected-vehicles/#list>; largest recall: Matt Vasilgambros, "The largest auto safety recall in U.S. history," *The Atlantic*, 4 May 2016, archived at <https://web.archive.org/web/20220428144105/https://www.theatlantic.com/national/archive/2016/05/largest-auto-safety-recall/481281/>.

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88 This table represents the breakdown of parent companies and their subsidiaries as defined in this report's analysis. Some of these parent companies are in fact subsidiaries of other brands, such as Porsche belonging to Volkswagen or Maserati belonging to Fiat Chrysler. However, Porsche and Maserati are commonly named as defendants in lemon litigation in their own right and are listed separately here. The names of the parent companies included in this table are those most commonly listed as plaintiffs in our records of Lemon Law cases, typically under the names of their U.S. or North American affiliates. In some cases, these companies may have subsequently changed names or engaged in mergers (e.g., Fiat Chrysler's absorption into Stellantis in 2021).