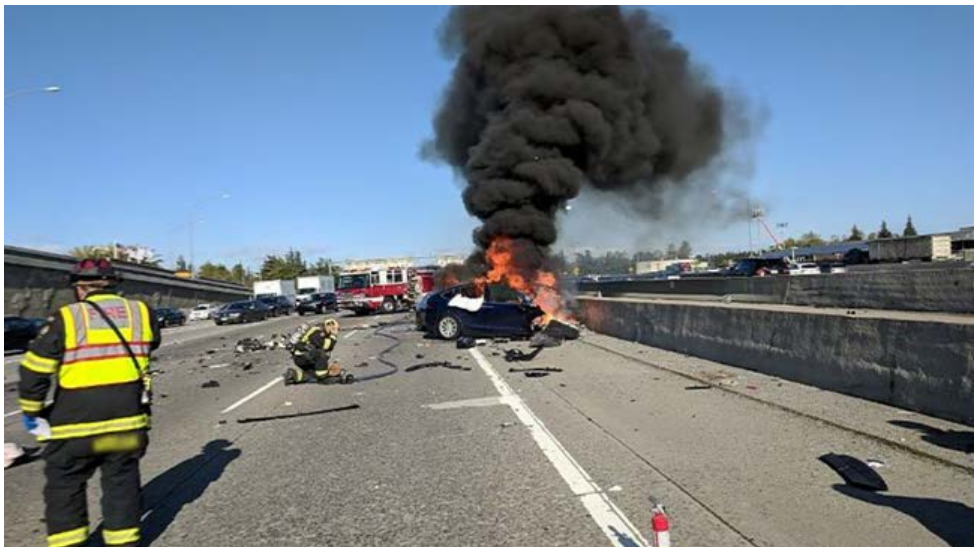
HIGHWAY TO THE DANGER ZONE

The Enduring Risks of ELECTRIC VEHICLES



Written by Emily Gottlieb, Deputy Director for Law & Policy
and Joanne Doroshow, Executive Director
May 2025

Center for Justice & Democracy at New York Law School
185 West Broadway, New York, NY 10013; centerjd@centerjd.org

HIGHWAY TO THE DANGER ZONE; The Enduring Risks of ELECTRIC VEHICLES

Center for Justice & Democracy at New York Law School
185 West Broadway
New York, NY 10013
centerjd@centerjd.org
http://centerjd.org

"Fighting to protect the right to jury trial and an independent judiciary for all Americans."

Cover Photo: Courtesy of the National Transportation Safety Board.

Table of Contents

HIGHWAY TO THE DANGER ZONE

The Enduring Risks of ELECTRIC VEHICLES

INTRODUCTION

> *Electrically driven trucks…Development necessary: — Running gear — easy. Motor driver — easy. Control—simple. Battery—(?)*
> —Thomas Edison writing down his ideas to replace horse-drawn carriages, 1890s[1]

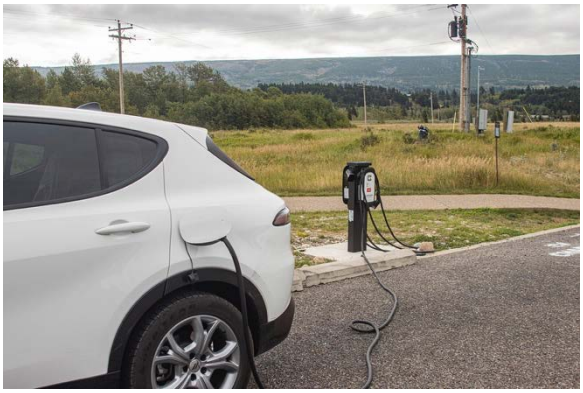
> *We had that, the stroller, some formula in there…. All her graduation stuff completely burned up.*
> —Ediel Ruiz watching his Tesla Model 3 spontaneously catch fire with his 4-month-old''s car seat the first to go, 2022[2]

Such has been the reality of electric vehicles (EVs) to date. Great hope and promise. But things don't always work out as planned. The speed at which this technology suddenly progressed in the late 2000s,[3] with minimal oversight and concerns about the legal accountability of some EV manufacturers (as this study shows), raises troubling questions about the future of EVs and who may be hurt getting there.

EVs have long been considered an important part of the climate crisis solution as they run on battery-powered electricity rather than gas.[4] They are not yet a huge segment of the American automobile market, but it's growing – or at least it had been.[5] According to market researcher Cox Automotive, 1.3 million EVs were sold in the United States in 2024. That was "8 percent of all new vehicle purchases – up from 1.2 million in 2023."[6] Tesla has been the sales leader by far, with 48% of U.S. market in 2024 (although this may now be changing).[7] Every other competitor's market share has been in the single

digits.[8] And while EVs have often been caught up in culture war clashes,[9] sales data show that EVs are hugely popular in Texas and Florida as they are in California.[10]

Before the 2024 election, predictions were that by 2030, EVs would make up nearly half of all new passenger cars sold.[11] But Trump ran on a platform that was openly hostile to EVs, and his administration remains so. For example, he intends on weakening tailpipe pollution regulations in order to benefit gas-powered cars.[12] He has taken other steps that will have a disproportionate impact on Tesla's competitors,[13] such as rescinding the Biden administration program to increase the network of charging stations that Tesla's competitors need.[14] In addition, Trump supports eliminating the $7,500 federal tax credit for new EV purchases, which will also mainly hurt Tesla competitors.[15] And Trump's tariffs may further shrink the EV market.[16]



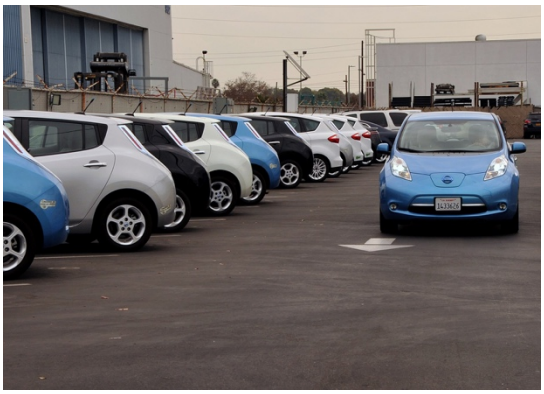
However, one area where there still may be significant EV growth is ride-sharing robotaxis, which are electric autonomous vehicles (AVs). Waymo – owned by tech company Alphabet, whose fleet of all-EV robotaxis is already operating in a number of cities – recently announced that it was partnering with Hyundai to add the automaker's Ioniq 5 EV to its fleet.[17] In October 2024, Elon Musk said that Tesla planned to roll out a ride-hailing service in California, Texas and possibly additional states in 2025.[18] Lyft and Uber have pledged to go 100 percent electric by 2030 and 2040, respectively.[19] (And don't count out the advent of EV flying taxis apparently.[20]) Notably, accessing AVs through "Mobility-as-a-Service" (MaaS) platforms, commonly via apps, requires riders to agree to online "terms of service" agreements. These agreements, usually buried online, contain provisions like forced arbitration clauses and class action bans that severely limit riders' legal rights.[21] As this study will show, some EV manufacturers are also using such agreements in direct-to-consumer EV sales, or simply in online resources to help customers manage their purchases.[22]

This is a report about EVs but it's also important to say what it's not. It does not address AV technology, which today is responsible for a number of recent EV deaths and injuries.[23] Our study is focused on the fundamental safety problems that currently plague EV passenger cars and trucks, electric buses, e-bikes and e-scooters. We examine the state of consumer protection, problems and defects faced by purchasers and legal rights available to victims. One thing is clear: EVs may be a critical part of solving the climate crisis, but without key safety improvements and better legal protections for consumers, the harm caused by these vehicles and their manufacturers will be substantial and costly.

ELECTRIC PASSENGER CARS AND TRUCKS

The National Highway Traffic Safety Administration (NHTSA) is the federal agency charged with protecting the public from unsafe vehicles, including EVs. Recent news stories have sounded the alarm about a possible new deregulatory approach by the current administration towards EV safety.[24] But the reality is that NHTSA has long had too cozy a relationship with auto manufacturers.[25] It has also been plagued by budget constraints and staffing shortages that, when combined, have led to significant delays in updating safety standards or issuing new ones.[26]

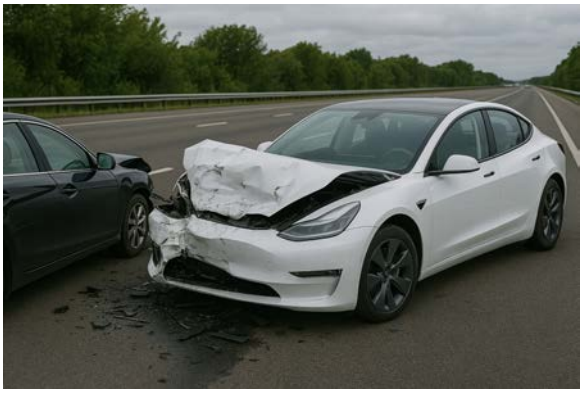
For example, it wasn't until December 2024 that NHTSA announced a final rule meant to ensure that: 1) EVs are designed in a way that minimizes risks related to electric systems, particularly the risk of electric shock in crashes and batteries catching fire or releasing harmful chemicals after an accident; and 2) emergency responders, like firefighters and paramedics, have access to standardized safety information for EVs so they can quickly and safely manage electric vehicles in emergencies, reducing risks to both themselves and vehicle occupants.[27]



NHTSA has never been great at fixing urgent problems in a timely manner, often taking action after the fact if at all.[28] For the most part, NHTSA allows auto manufacturers to police themselves,[29] a system where unethical companies can clearly take advantage. Take the now-bankrupt EV startup Fisker,[30] which put an SUV on the market that had a serious defect capable of cutting power in the vehicle. According to *TechCrunch*, in 2023, a Fisker board member and top company executive personally experienced this extremely dangerous problem while out driving, yet took no action to issue a recall. Customers reported to the company more than 100 separate incidents of power loss.[31] It wasn't until July 2024 that the company finally issued a recall.[32]

In fact, there have been an extraordinary number of voluntary recalls of millions of EV cars and trucks just in the past year. This may speak less to the effectiveness of the self-policing model and more to how dangerously fast this industry is evolving and the inability of NHTSA to keep up. In 2024, Tesla had to issue 16 recalls impacting over 5.1 million vehicles, making it "the top offender for recalled cars in 2024."[33] The Cybertruck accounted for nearly half the recalls.[34] The problems involved everything from the electrical system (25% of the recalls) and loss of power incidents to airbag problems to defective tire pressure monitoring systems[35] to detaching trunk bed trim.[36] Power steering issues led to Model 3 sedan and Model Y SUV recalls, a problem Tesla owners had reported to NHTSA for more than a year.[37]

But when it comes to recalls, Tesla is hardly alone. Loss-of-power incidents also resulted in March and November 2024 Hyundai, Kia and Genesis recalls.[38] A dangerous software glitch led GM to recall Cadillac Lyriq SUVs in August 2024.[39] In December 2023, GM halted sales of its Chevrolet Blazer EV because of owner-reported software glitches affecting the functionality of its touch-screen interface and charging capabilities.[40]



And the recalls continue. In March 2025, over 60,000 Volkswagen and Audi EVs were recalled over concerns that some cars would not display the "N" gear position on the instrument panel, potentially confusing drivers and increasing the likelihood of a crash and the vehicles rolling away.[41] That same month, Volkswagen recalled nearly 14,000 vehicles due to a battery charging issue that can increase the risk of a crash.[42]

COMMON SAFETY ISSUES

These recalls only touch the surface of safety problems that have plagued EVs. Below are some common issues that can be hazardous and sometimes deadly.

Vehicle weight. Passenger EVs tend to be hundreds to thousands of pounds heavier than similarly sized gas vehicles due to their batteries, increasing the risk of life-threatening collisions for all road users. As the Center for Auto Safety (CAS) has warned, "The chance of severe injury or death in crashes goes up almost 50% for every thousand pounds of weight added to a vehicle."[43]

Electric pickup trucks and SUVs may add more than 1,500 lbs. per vehicle. For example, explains CAS, a GMC Hummer EV weighs over 9,000 pounds, up from about 6,000 pounds. Its gross vehicle weight rating is a staggering 10,550 pounds. The battery pack alone weighs over 2,900 pounds – about the weight of a Honda Civic. The Ford F-150 Lightning is between 2,000 and 3,000 pounds heavier than the non-electric version. The Mustang Mach-E, Volvo XC40 EV and RAV4 EV are all roughly 33% heavier than their gasoline counterparts. This extra weight contributes to different handling and braking dynamics, which can exacerbate accidents at high speeds or during rapid acceleration. In a crash, the increased mass can result in greater momentum and more severe impacts, posing risks to both occupants and pedestrians.[44]

Moreover, the nation's guardrail system isn't strong enough to keep EVs "from careening off the road at critical areas, such as over bridges and waterways, near the edges of cliffs and ravines."[45] This was the conclusion of University of Nebraska researchers, who found that EVs "can easily crash through steel highway guardrails that are not designed to withstand the extra force"[46] from heavy EVs. National Transportation Safety Board (NTSB) Chair Jennifer Homendy expressed concerns to Congress in March

2024, testifying, "Our guard rails, crash attenuators, they are rated up to 5,000 lbs. Many of these vehicles go up to 10,000 lbs. …It's going to have a significant impact on safety."[47]

Acceleration. EVs accelerate much faster than traditional vehicles, which cause drivers accustomed to gradual acceleration to accelerate rapidly – a phenomenon known as the "overtapping effect" – which can lead to accidents. This is especially true in situations like parking, driving in congested areas or where EVs share the road with pedestrians, bicycle riders and other vehicles. According to a 2022 study, "drivers of electric vehicles exhibit acceleration risks ranging from 180% to 340% higher than when driving traditional combustion vehicles." The ability to quickly accelerate is particularly dangerous when it comes to "new superheavy electrified trucks and SUVs" that sometimes are even "accompanied by the equivalent of a 'warp speed' feature like the WTF button in Hummer EVs," explains CAS. The Insurance Institute for Highway Safety (IIHS) echoes these concerns, stating:[48]

> Today's supersized EVs are a double whammy of weight and horsepower. While there were many heavy vehicles on our roads before EVs, a delivery truck isn't designed to go from 0 to 60 in around three seconds like the Hummer…or the 7,000-pound Rivian R1T pickup. Even the more modest Kia EV6, a small SUV that weighs about 4,500 pounds, boasts the same rapid acceleration.

EVs' silent operation is another acceleration-related danger. No auditory feedback from a revving engine can cause drivers to underestimate how quickly their vehicle will respond to a foot on the accelerator. "Pedal error," *i.e.*, when drivers accidentally hit the accelerator instead of the brake, can also have more serious consequences if EVs are involved as opposed to gas-powered vehicles since there's less time to react to the mistake. As Jake Fisher, Senior Director of *Consumer Reports'* Auto Test Center, explained to *Bloomberg*,[49]

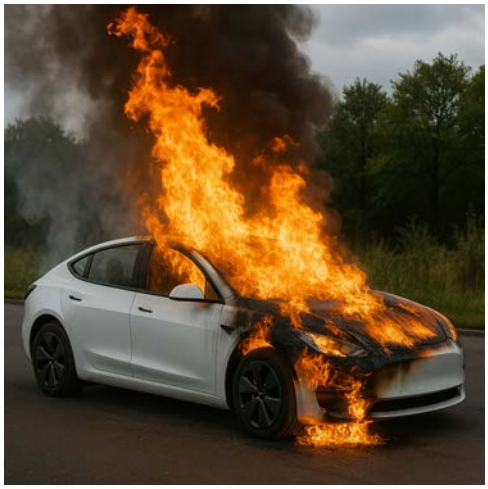
> [I]magine a parked car with its steering wheel turned 180 degrees, upside down. That may fool the driver into thinking the tires are pointed straight ahead when they are in fact turned hard over. A slip of the foot or momentary mental lapse will cause trouble in any case. But in an EV, where merely toe-tapping the accelerator brings a jolt of instant torque, the margin of error is smaller: A car could be over the curb and onto the sidewalk before the driver can react.

Braking. EVs use regenerative braking, which functions to capture energy in addition to stopping the car.[50] Regenerative braking can cause the vehicle to slow down more abruptly when the driver takes their foot off the accelerator compared to traditional friction brakes. If drivers don't know about this feature or are accustomed to the more gradual deceleration of conventional vehicles, the sudden slowing might catch them off guard, particularly in high-traffic situations where abrupt deceleration poses an increased risk of rear-end collisions.

The heavier nature of EVs can also affect braking, not only increasing stopping distances but also requiring longer braking distances, especially at high speeds or in emergency braking scenarios. This can be a problem on wet or icy roads, where stopping distances are already extended. According to IIHS, "[I]t's not clear that all EVs have braking performance that matches their additional mass. If the extra weight leads to longer stopping distances, that will likely lead to an increase in pedestrian and cyclist deaths, which already have been on the rise in recent years."[51]

Decreased usage of regenerative brakes also can lead to a build-up of moisture and rust on the brake pads and rotors, especially in areas with high humidity. Over time, corrosion can weaken the brake pads, which may result in reduced effectiveness and increase the likelihood of failure when traditional friction braking is needed in an emergency. In addition, when brake pads aren't used regularly, they may develop a "glazed" surface, which can reduce their ability to create friction against the rotor. Brake pads may also wear unevenly due to intermittent use, which can lead to an inconsistent braking response. In a situation requiring sudden stopping, this lack of even wear can reduce the car's stopping power.

EVs with one-pedal driving present another danger. This feature allows the driver to control both acceleration and deceleration using a single pedal, making it difficult to modulate speed precisely in situations requiring fine control, like stop-and-go traffic, increasing the likelihood of an accident.[52]



Battery fires. EVs use high-capacity lithium-ion batteries, which is where EV fires typically start. These batteries can catch fire if badly designed, damaged or overheated. In the event of a serious collision, battery packs can be punctured, leading to the risk of fire or explosion. Spontaneous ignition is also a concern; it's when battery cells overheat and catch fire spontaneously because of manufacturing defects or exposure to extreme heat. And in places experiencing storm surge in coastal areas, battery fires can occur within hours or weeks after EVs are submerged in salt water. In addition, if an EV's battery management system (BMS) – *i.e.*, the electronic control unit that monitors and regulates a battery's performance and charging and discharging – fails, overcharging the battery can result fires or explosions.

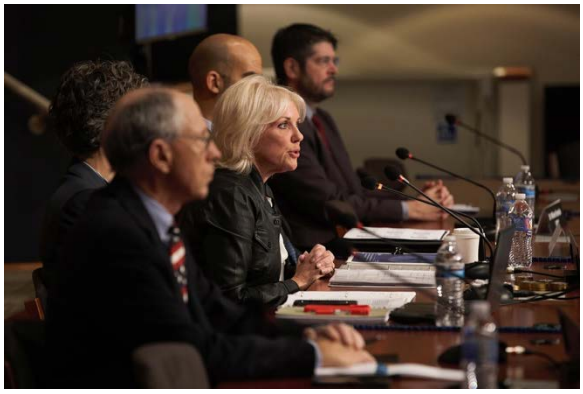
Moreover, when lithium-ion batteries catch fire, they can emit toxic and flammable gases, which can be harmful to passengers and emergency responders and also contaminate the environment. One study found that "[d]uring an electric vehicle fire, more than 100 chemicals are released, including heavy metals, carbon monoxide and hydrogen cyanide."[53] In addition, "Water runoff from firefighting efforts is…toxic too. The pH level of water runoff from an electric vehicle fire is about 7.5 compared to 2.7 for internal combustion engines."[54]

It takes thousands of gallons of water to put out an EV battery fire and, on average, 90 minutes or more to suppress an electric vehicle fire (versus about 500 gallons and 30 minutes, respectively, for a gas or diesel vehicle), prolonging firefighter exposure to toxins. Fires from EV batteries are difficult to extinguish because of "thermal runaway," described as follows:[55]

A state in which lithium-ion batteries enter a kind of fire doom loop: A damaged battery cell produces heat and flammable gases, which in turn produces more heat and flammable gases, which begins to heat nearby battery cells, which release more heat and gas. The fire then becomes self-sustaining and hard to put out.

As NTSB Chair Jennifer Homendy told Congress in March 2024 testimony, the agency had seen many instances of electric vehicles reigniting on the tow truck and even days later in the tow yard.[56] These recent examples illustrate the problems:

- A 2022 Ford F-150 Lightning caught fire the night of October 8, 2024 while charging in a Maryland driveway. "The owners were inside their home preparing to go to sleep when they heard a sound and discovered the vehicle was on fire. …The fire spread to the garage, destroying the two vehicles inside;" the house "sustained heat, smoke, soot and water damage," displacing the family. One of the owners also "sustained burns to his right hand while attempting to disconnect the vehicle from its charging cable…."[57]



- On July 11, 2024, "15 fire units, including a hazardous materials truck, and more than 30 firefighters" responded to an EV fire at Edmonds' Campbell Auto Group dealership in Washington State. The response was "significantly more than the response to a fire in a non-electric vehicle, which typically requires one fire engine with a crew of three." The fire in the unoccupied car, "which was engulfed in smoke in the middle of a parking lot," was cooled with water streams plus an EV fire blanket "to cover the car to contain toxic fumes. …Firefighters monitored the car throughout the afternoon and recommended the blanket be left on the car for several days to prevent reignition."[58]

- An EV Hummer reignited three times after a hit-and-run crash on the southbound I-405 on-ramp to eastbound I-90 in Washington State on February 22, 2024, fully blocking the two highways during evening rush hour. Fire crews "spent hours battling the fire while also removing the Hummer from the ramp. However, the fire reignited as crews were attempting to tow the vehicle away." According to Bellevue Fire Battalion Chief Doug Halbert, "[I]t took them 10 hours to finally take their eyes off the vehicle as it burned, then was smoldered, smoked, and started to burn again through the night."[59]

- Storm surge from September 2024's Hurricane Helene caused at least 11 known instances of EVs catching fire in Florida, with the saltwater having corroded their lithium-ion batteries. The state experienced a similar phenomenon after Hurricane Ian in 2022, when "thousands of electric vehicles were submerged in water, resulting in dozens of fires." As Pinellas County's Emergency Management Director warned after Hurricane Milton made landfall in Florida in October 2024, "'Anything with those lithium-ion batteries needs to be moved out of the surge zones where it

> could be exposed to saltwater…. We've seen it – they've exploded; they've caused fires,' [she] said. 'If it's inside of your home or underneath a condo, we do not need to have building fires in the middle of this because nobody's going to be able to come out and help you."[60]

Electrocution. EV batteries operate at very high voltages (up to 800 volts in some models), presenting a risk of electrocution if mishandled or if protective equipment is bypassed. This risk is particularly acute for first responders and repair technicians who may need to interact with the battery pack or other high-voltage components during a collision, fire or maintenance. In the event of a crash, electrical components may be damaged, increasing the risk of exposed live wires or high-voltage currents running through parts of the vehicle that shouldn't normally be live.[61]

Loss of power. A complete or abrupt power loss, which can be caused by a range of problems often related to the battery, can lead to stalling – an immediate threat, especially in hazardous high-speed or high-traffic conditions. Cold weather poses a particular danger since it can cause sudden drops in battery performance, resulting in power interruptions or even a complete shutdown. And in emergencies where a vehicle loses power, occupants can be trapped if the electric doors, locks and windows become non-functional. Oftentimes back-up mechanisms built into the car aren't intuitive, even to skilled first responders, a design flaw that impedes rescue and escape especially in life-threatening situations where every second counts, like water submersion, fire or extreme heat. Take what happened to Renee Sanchez, who had to call 911 when her 20-month-old granddaughter became trapped inside her Tesla Model Y after the car's battery died without warning. As Renee told a local Arizona TV station, after putting the toddler into her car seat for a trip to the Phoenix Zoo, "'I closed the door, went around the car, get in the front seat, and my car was dead,' she said. 'I could not get in. My phone key wouldn't open it. My card key wouldn't open it.'" The child was stuck all alone as the vehicle got hotter and hotter; firefighters had to break open a window with an ax to rescue her.[62]

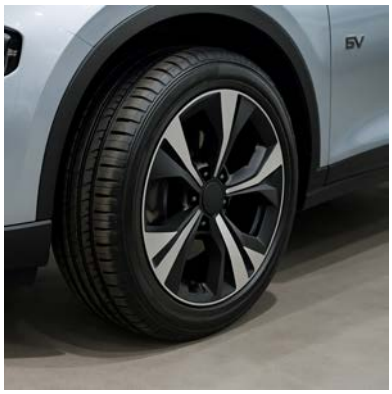
Software issues. EVs rely heavily on complex software systems for everything from driving to battery management. Common problems include malfunctioning touchscreens, unresponsive controls, charging errors, inaccurate alerts and disrupted vehicle operation due to faulty updates. Software glitches and failures can lead to overheating, loss of power, brake failures, sudden acceleration and collisions.[63]

Rapid tire degradation. EVs' regenerative brakes have instant torque and are typically very heavy. These factors lead to faster tire wear,[64] increasing the likelihood of braking or traction problems and subsequent accidents. Tires that wear out quickly also produce more tire microplastics which can become airborne and endanger public health.[65] As the *Atlantic* explains,[66]

> The smallest tire particles, measured in mere nanometers, can enter our lungs and spread to our organs. Various tire components have been linked to chronic conditions including respiratory

problems, kidney damage, neurological damage, and birth defects – a particular concern in neighborhoods adjacent to highways, whose residents skew low-income and minority. Tire particles could also affect us through our food because their chemicals can work their way into the algae and grass consumed by fish and cows.

In addition, tire microplastics can contaminate the environment. Per the *Atlantic*,[67]



> As a form of microplastics, tire pollution hits wildlife hard: Compounds that settle on the ground gradually leach toxic chemicals into the soil and water. One study concluded that tires could be responsible for as much as 28 percent of the microplastics in global oceans; another found them to be among the largest sources of such pollutants in the San Francisco Bay. Microplastics can be consumed by tiny aquatic organisms, wreaking havoc as they travel up food chains.

CONSUMER PROTECTIONS AND LEGAL REMEDIES

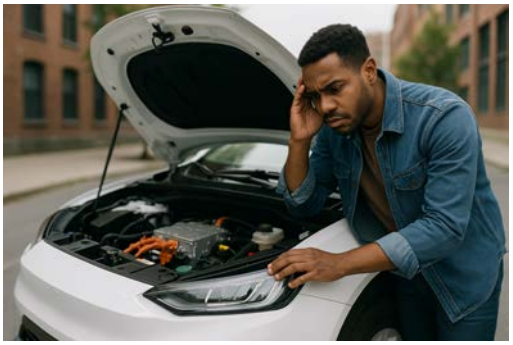
EVs have fewer parts and systems than gas-powered cars, so theoretically there should be fewer problems. However, it seems the opposite has been true. According to Frank Hanley, Senior Director of Auto Benchmarking at J.D. Power, owners of these vehicles, including hybrids, are taking them into dealerships for repair "at a rate three times higher than that of gas-powered vehicle owners."[68] In fact, "Consumer Reports subscribers, who filled out surveys during much of 2024, reported that electric vehicles had 42% more problems than gas autos on average."[69] And when it comes to market leader Tesla, a December 2023 *Reuters* investigation found,[70]

> Wheels falling off cars at speed. Suspensions collapsing on brand-new vehicles. Axles breaking under acceleration. Tens of thousands of customers told Tesla about a host of part failures on low-mileage cars. The automaker sought to blame drivers for vehicle 'abuse,' but Tesla documents show it had tracked the chronic 'flaws' and 'failures' for years.

LEMON LAWS AND DEFECTS

One way states help ensure that new passenger cars and trucks with safety defects do not make it on the roads – as well as to protect their purchasers – is state "lemon laws." Lemon laws allow new purchasers of cars with serious defects to have the manufacturer fix the defect. If the vehicle is not properly or timely

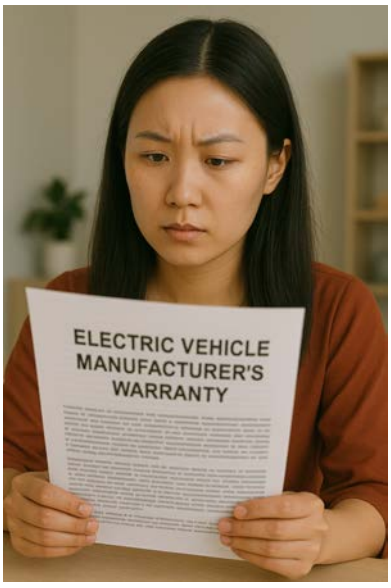
repaired, the purchaser has the right to a refund or replacement from the manufacturer.[71] All 50 states plus the District of Columbia have these laws[72] and they cover EVs (although battery defects, which may come with a separate warranty, may not be covered).[73]



However, they vary in terms of the effectiveness of their consumer protections, their scope[74] and the difficulty of the claims process. In some states – like Alabama,[75] Arizona,[76] Colorado,[77] Illinois,[78] Kansas,[79] Kentucky,[80] Louisiana,[81] Mississippi,[82] Missouri,[83] New Mexico,[84] North Carolina,[85] North Dakota,[86] Oregon,[87] Pennsylvania,[88] South Carolina,[89] South Dakota,[90] Tennessee,[91] Utah[92] and Wyoming[93] – consumers' complaints must go through a manufacturer's alternative dispute resolution mechanism before purchasers can sue in court. These programs give automakers significant control over proceedings. Arbitrators may not strictly adhere to state lemon law criteria when evaluating cases. In addition, consumers' claims may be heard by arbitrators hired or selected by manufacturers who rely on the automakers for repeat business. As one corporate lawyer recently put it, lemon law arbitration is not about offering a fair alternative to consumers but controlling costs for manufacturers.[94]

WARRANTIES AND DEFECTS

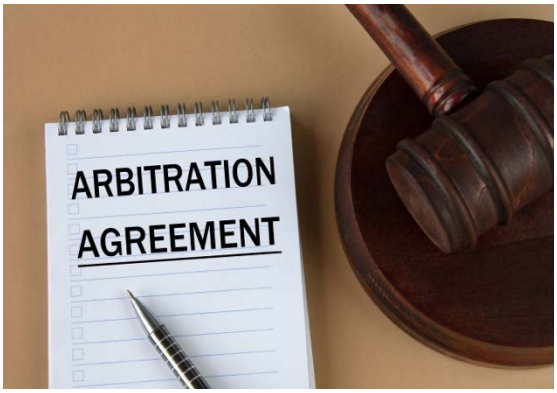
Notably, even before the first state lemon law was enacted in 1982, Congress had provided new product purchasers with warranty rights under the Magnuson-Moss Warranty Act (MMWA). This statute was enacted to stop deceptive warranty practices and make it easier for consumers to bring warranty suits if a car manufacturer fails to uphold their warranty obligations.[95] MMWA applies to written warranties whether cars are sold through dealerships or directly to buyers, as is the practice with some EV companies like Tesla, Rivian and Lucid.[96] Also, while many car defects are covered by both lemon laws and MMWA and cases often involve claims under both, most lemon laws require that lemon law claims be brought first so the manufacturer has a chance to remedy the problem. But in terms of scope, remedies and damages, MMWA claims can be broader than what is available under state lemon laws.[97]



Indeed, consumers have often pursued lawsuits including class actions involving EV warranty and/or defect claims. Recent examples include a May 2024 $150 million class action settlement by GM and LG over defective Chevy Bolt batteries, providing compensation to over 100,000 consumers;[98] multiple other class actions currently pending over defective EV batteries or battery systems;[99] and a pending 2025 class action filed on behalf of tens of thousands of Ford Mustang Mach-Es owners, alleging that the defective electronically latched doors can trap occupants in the car if there's battery failure or loss of power to the vehicle.[100] And a class action has now been filed against Tesla for trying to evade obligations under its warranty by speeding up odometer readings.[101]

While informal dispute resolution is encouraged under MMWA, these kinds of lawsuits were always envisaged by Congress, which specifically referenced "civil actions" in the statute.[102] The Federal Trade Commission (FTC), which enforces MMWA, has had a longstanding Rule 703 implementing this provision in the law, explicitly stating that any informal decision be non-binding.[103] Indeed, the agency has long maintained that forced arbitration clauses are inconsistent with MMWA, reaffirming this position in 2015.[104] As the U.S. Consumer Financial Protection Bureau has explained, anti-consumer bias infects the forced arbitration process since arbitrators in these disputes are "usually chosen by the dealer or lender."[105] Notably, the first Trump administration did not change Rule 703 and, as of publication, the second Trump administration also has not.

However, generally speaking, courts have largely allowed consumer product manufacturers to flout FTC's negative view of forced arbitration clauses in written warranties signed by the manufacturer and purchaser.[106] But it's a different story when it comes to warranty claims against car makers where the purchaser signed a sales contract with the dealer only. As a basic principle of contract law, many courts have rejected automakers' attempts to compel arbitration or ban class actions in contracts between franchised dealers and consumers that the manufacturers didn't sign.[107] Nevertheless, this hasn't stopped manufacturers from trying to force warranty claims into arbitration. For example, in California, the state supreme court has agreed to decide whether Ford can use arbitration agreements in dealership sales contracts to avoid lemon law and MMWA lawsuits.[108] (As of March 2025, seven California appeals courts had ruled that the answer was no.[109])

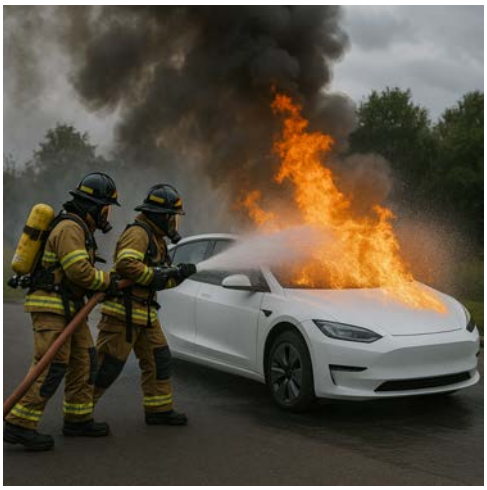


When automakers avoid dealers and sell cars directly to consumers, however, the contractual distinctions evaporate. Manufacturers that want to bind purchasers to forced arbitration clauses and class action bans can do so with direct-to-consumer contracts. This is how the largest EV company, Tesla, prefers selling its cars.[110] Of the top 10 EV sellers, Rivian is the only one to also use this model. (It should be noted that Hyundai has started selling some cars on Amazon Auto, which acts as a "middleman" between purchasers and dealers. However, the sales agreement comes from the dealer and Hyundai provides the warranty.[111]) Though direct-to-consumer agreements may include an arbitration opt-out option, the directions, like the clauses themselves, are buried in the fine print and are incomprehensible to most Americans.[112] While there are instances where cases have proceeded in court – such as when the EV was sold by a third party[113] or the arbitration clause was part of a potentially illegal service agreement[114] – those situations are the rare exceptions.[115]

That said, selling directly to consumers is not always allowed by state law. Sixteen states ban direct-to-consumer vehicle sales,[116] although incredibly Tesla has gotten a special exemption in ten states that otherwise ban the practice.[117] But in what some might call a "sign of the times," some New York and Washington State lawmakers no longer favor special privileges for Tesla and have introduced legislation not to stop all direct-to-consumer sales but rather to lift the ban on such sales for other companies.[118]

PERSONAL INJURY

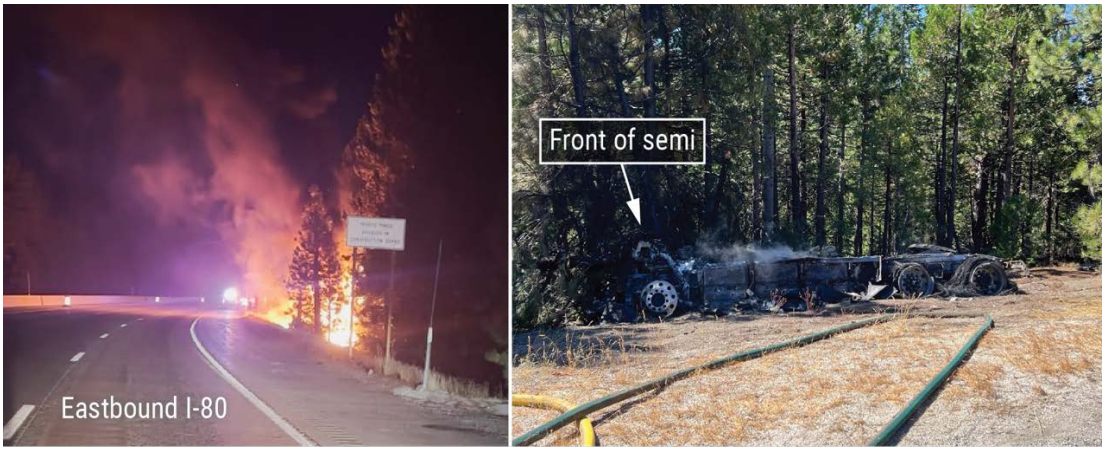
Companies that sell EVs, including those marketing directly to consumers, don't contractually waive liability for personal injuries or death. To do so would be against current law and public policy,[119] as well as likely risk reputational damage. Some lawsuits have proceeded over EV defects, such as a recent products liability case involving a George Washington University public health professor, who was wearing her seat belt and horrifically injured when the airbags in her Tesla didn't deploy after being struck by another vehicle, causing it slam into a guardrail on I-95.[120] The parties reached a confidential settlement in January 2024.[121] And in April 2025, Tesla settled a wrongful death lawsuit involving negligence and product liability claims – the driver "was incinerated 'within seconds'" after his "Tesla Model Y suddenly accelerated, went off the road and slammed into a pillar at an Ohio gas station," rupturing the car's battery modules.[122] (Notably, an inordinate number of personal injury cases have involved Tesla's Autopilot feature, which is not examined in this study.[123])



In addition, it appears they have not yet tried to force personal injury claims into arbitration.[124] However, Tesla's attorneys have a history of playing serious litigation hardball in these kinds of lawsuits.[125] Take the case of Sylvia Jackson, whose legs were crushed and later amputated because a Tesla Model 3 "accelerated into her while she was loading groceries into her car in the parking lot of a Maryland grocery store." Nearly a year and a half later, far into the discovery process, already through pretrial proceedings and with four months until trial, Tesla sought to disqualify the trial judge and transfer the case to a district court in another state. Sylvia argued that there had been no concerns raised about judicial bias through any proceeding to date, that the company waited more than two years to try to transfer the case even though "the California district court explicitly invited Tesla to do so more than two years ago, and the company nonetheless chose to remain in the California court and proceed through discovery." As of publication, the case was still pending.[126]

It should be noted that when it comes to protecting personal injury lawsuits, additional problems could arise in light of the U.S. Supreme Court's view of federal preemption. In 2000, the Court issued a troubling and unprecedented ruling that NHTSA regulations preempted a state tort lawsuit even though Congress intended to preserve such lawsuits.[127] While this may have been an outlier decision,[128] it raises troubling questions about how the U.S. Supreme Court may rule in a future case and how best to ensure protection of state claims in any future legislation or regulation.

ELECTRIC COMMERCIAL TRUCKS



(photos courtesy National Transportation Safety Board)

There has been a growing adoption of commercial e-trucks across the country. By the end of 2024, there were over 29,000 medium- and heavy-duty electric commercial trucks (MHDEVs) on the nation's roads, with 2024 seeing a nearly 44 percent increase in new MHDEVs deployed from the previous year.[129] Some pre-Trump estimates projected that 25 percent of the U.S. medium- and heavy-duty commercial truck market would be electric by 2030, with even more significant adoption by 2040.[130]

More commercial e-trucks on U.S. roads means an increase in threats to public health and safety given their batteries, which pose unique and more dangerous fire risks than passenger EVs. Electric batteries in commercial trucks significantly increase the vehicle's overall weight, with some batteries totaling up to 16,000 pounds.[131] Heavier trucks generate more force during collisions, increasing the likelihood of battery damage and subsequent fires.

Commercial trucks are also subjected to more strain due to their heavy loads, long-distance driving and higher operational demands, factors that can increase the risk of a battery overheating, igniting and causing an explosion. In addition, commercial trucks often carry hazardous or flammable cargo, which increases the danger when an electric truck catches fire. Fires in these trucks can easily spread to or ignite nearby cargo, amplifying the potential destruction.

Heavy-duty and long-haul e-trucks also have much larger batteries than passenger EVs (often storing over 600 kWh compared to 60-100kWh in passenger EVs),[132] causing them to release more energy when they fail, which results in fires that are hotter, faster-spreading and harder to extinguish. Take what happened in August 2024, when an electric Tesla semitruck crashed and caught fire on I-80 in California.[133] The EV's batteries continued to burn, shutting down a portion of the interstate for over 12 hours as emergency crews tried to contain the fire,[134] which took about 50,000 gallons of water to extinguish.[135] Aircraft had to then drop fire retardant around the area to prevent wildfires.[136]

Moreover, larger batteries in commercial trucks hold heat for longer – which can lead to fires that burn for hours or even days – and have a higher risk of reignition after being initially extinguished, requiring prolonged monitoring by emergency crews. Since larger batteries retain heat for longer periods,

commercial electric trucks also pose a higher risk of fire when being towed to storage or repair facilities. In addition, these larger batteries release more toxic gases during fires, which can cause not only greater health and safety risks to first responders and people in the area but also more extensive environmental contamination.

LEGAL RIGHTS AND INSURANCE

Even aside from the growing dangers of commercial e-trucks, the trucking industry already has a terrible safety history.[137] Preventing big truck crashes through stronger safety regulations and full legal accountability is the safest way to reduce deaths, injuries, lawsuits and verdicts. That has not been the trucking industry's approach. Instead, the industry has used its economic clout to weaken critical safety standards and strip everyday people of their legal rights in the event of a crash.[138] There are numerous tort restrictions already on the books that specifically target the legal rights of catastrophically-injured truck crash victims.[139] And the lobbying has not stopped. One newer trucking industry priority, which was just enacted in Georgia and is being pushed elsewhere, is to require multiple trials in the same case, preventing juries deciding liability from hearing any evidence related to damages.[140] This ridiculously costly idea is based on the insulting premise that citizens who sit on juries can't be trusted with important information, countering decades of objective studies by jury researchers that show juries to be capable, effective and impartial decision-makers who weigh evidence fairly from both sides and reach decisions similar to how judges or legal experts would have ruled.[141]

In addition to tort restrictions, low federally-mandated insurance minimums can hobble a victim's ability to recover. Under Federal Motor Carrier Safety Administration (FMCSA) regulations – which do not distinguish between electric and traditional vehicles – big rigs that transport non-hazardous cargo must carry only a minimum of $750,000 per accident in insurance liability coverage, a number that has stayed constant since the 1980s.[142] Private big rigs transporting oil must only have $1 million per accident in insurance liability coverage while private carriers that haul all other hazardous material must have $5 million in insurance liability coverage.[143]

These insurance limits can function as a cap, providing a single fund of available compensation that is indifferent to the number of victims hurt or killed. This is a huge problem when crashes cause major harm. As FMCSA told Congress in 2022, when "catastrophic and severe/critical injury crashes do occur, the costs of resulting property damage, injuries, and fatalities can significantly exceed the minimum levels of financial responsibility."[144] The agency also noted that "[t]he decreasing real value of the current minimum levels of financial responsibility is effectively removing the function of insurance in covering catastrophic crashes."[145] In addition, this liability limit fails to incentivize insurers to make safer practices a condition of coverage, thereby allowing trucking companies to treat deaths and catastrophic injuries as part of the cost of doing business.

ELECTRIC BUSES

Like commercial e-trucks, electric buses are equipped with large, heavy, high-capacity lithium-ion battery packs that can cause more severe damage in collisions than smaller EVs, lead to more intense fires that are difficult to extinguish and emit greater amounts of hazardous gases that endanger the public, first responders and the environment. Where e-buses differ is passenger capacity, with school and commuter buses able to carry 40–80 passengers or more. This high capacity increases the potential number of injuries and fatalities in the event of a severe incident, like a battery fire or explosion.

ELECTRIC SCHOOL BUSES

There are half a million school buses on the nation's roads, nearly 5,000 of which are electric and "serving approximately 254,000 students in 49 states, Washington, D.C., American Samoa, Puerto Rico and seven tribal schools."[146] The switch to electric is increasing, at least in some states.[147] This is a worrisome development given that the small number in use have generated big safety problems that put children's lives at risk. As one commentator put it, "It is imperative to ask if the technological zeal is overshadowing practical implementation strategies that ensure safety and reliability."[148]

For example, in February 2024, sudden brake and steering loss in a Lion electric school bus in Maine forced its driver to run it into a snowbank so it wouldn't collide with oncoming traffic.[149] Fortunately, no children were on board. This situation, preceded by "months of documented problems" with such buses, prompted the Winthrop School District to stop using them altogether.[150] Maine's Yarmouth School District experienced similar issues.[151] In June 2024, Lion recalled certain 2024-2025 electric school buses due to a potential parking brake malfunction.[152] And in January 2025, four new e-school buses yet to be placed in service became fully engulfed in flames in a Massachusetts bus garage in the middle of the night, not only creating a two-hour delay for area schools the following day but also endangering the lives of firefighters from multiple fire departments, who worked to control the blaze in temperatures around zero degrees.[153] The cause is still being investigated.

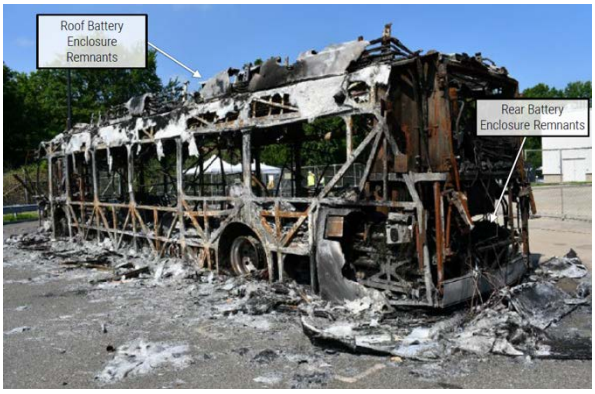
ELECTRIC TRANSIT BUSES

E-transit buses around the country have burst into flames because of battery fires. This happened at a Connecticut bus depot in July 2022, which "smoldered for two days" and was difficult for firefighters to

extinguish.[154] Two transit workers and one firefighter were taken to the hospital. More recently, in October 2024, Phoenix Motorcars recalled more than 480 electric transit buses because of vehicle controller software that increased the risk of fires.[155] In December 2024, North Carolina's Chapel Hill Transit immediately removed its entire fleet of electric buses from service after one caught fire while parked in a lot at the agency's headquarters.[156] It was later determined that the fire started in the batteries.[157]

LEGAL RIGHTS AND INSURANCE

State tort restrictions can impede victims' abilities to bring negligence, wrongful death and product liability actions against wrongdoers. In the case of EV bus accidents, mandated insurance minimums may also have a profound impact on a victim's ability to recover.



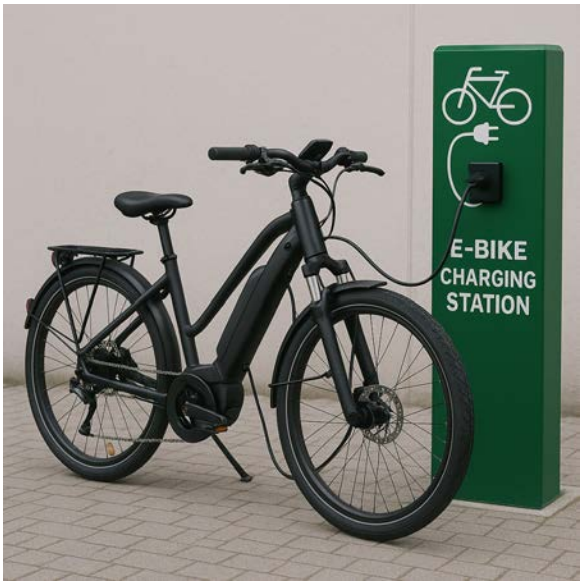
(photo courtesy National Transportation Safety Board)

Insurance liability limits for school buses, including electric models, are primarily determined by state regulations and can vary based on factors such as the bus's seating capacity. For example, Wisconsin mandates the following minimum liability coverage for school buses: $150,000 for buses with up to 7 passengers, $200,000 for 8 to 15 passengers, $250,000 for 16 to 24 passengers, $375,000 for 25 to 36 passengers and $1,000,000 for 37 or more passengers.[158]

Regarding for-hire transit buses, such as charter buses, federally-mandated minimums do not distinguish between electric and conventional vehicles and have been unchanged since 1985. Buses that carry 16 or more passengers across state lines must only have $5 million in liability insurance coverage.[159] Individual states establish their own insurance requirements for intrastate private bus operations. In terms of city buses, insurance minimums are set by state laws or municipal regulations. As with all insurance minimums that are set too low, they can function as a compensation cap especially in mass casualty situations.

E-BIKES

In recent years, e-bikes have skyrocketed in availability and popularity. According to the most current data available, in the United States, "[b]etween 2018 and 2022, sales of e-bikes rose from around 250,000 per year to more than a million."[160] E-bike rentals are also at record numbers: Trips on station-based e-bikes "grew from 20 million trips in 2022 to 28 million trips in 2023 – a 40% increase. E-bike trips accounted for 46% of all station-based bike share trips made in the U.S. in 2023, and e-bikes represented a third of the total station-based bikes available."[161] As for U.S. ridership on dockless e-bikes, in 2023 "people took 6.7 million trips on dockless e-bikes, a nearly 50% increase from 4.5 million trips in 2022."[162]



Unfortunately, e-bike growth has been accompanied by a rise in deaths and injuries. E-bike injuries dramatically increased from 751 in 2017 to 23,493 in 2022,[163] as have emergency rooms visits.[164] While numbers like these are worrisome, they don't fully capture the extent of e-bike-related injuries across the nation since there is significant underreporting and limitations in data collection methods.[165] And as with all EVs, lethal battery-related fires have complicated the safety risk. Recent headlines tell some of the story.[166] Thermal runaway, described earlier in connection with EV passenger cars and trucks, makes these fires extremely difficult to put out and able to reignite "days or weeks later."[167]

As news reports make clear, high-density urban environments exacerbate this danger, with many e-bike owners charging batteries inside apartment buildings and small living spaces, where fires can spread quickly with limited escape routes, putting all residents at risk. Daniel Flynn, Chief Fire Marshal of the FDNY Bureau of Fire Investigation, explained, "'They almost present as what we used to see traditionally as an arson fire, where the fire spreads so quickly, it looks like what you would get when you poured a gallon of gasoline in the building.'"[168] Chief Flynn told Congress, "In my nearly 20-year career, I would be hard-pressed to identify another instance in which a new cause of fires originated and, in only a few years, became one of the leading causes of fatal fires."[169]

There are additional characteristics of e-bikes that make them especially dangerous. In a March 15, 2024 advanced notice of proposed rulemaking, the U.S. Consumer Product Safety Commission (CPSC) identified several concerns, including visibility and audibility problems, difficulty maintaining balance due to size and weight and risks related to acceleration, speed and braking, which not all riders can safely handle.[170] The agency never advanced these concerns to the rulemaking stage, and now the Trump administration is on a course to dismantle CPSC regulatory protections.[171] With the federal government failing in this area, it falls to states and cities to decide whether to police e-bike battery safety.[172]

LEGAL RIGHTS AND INSURANCE

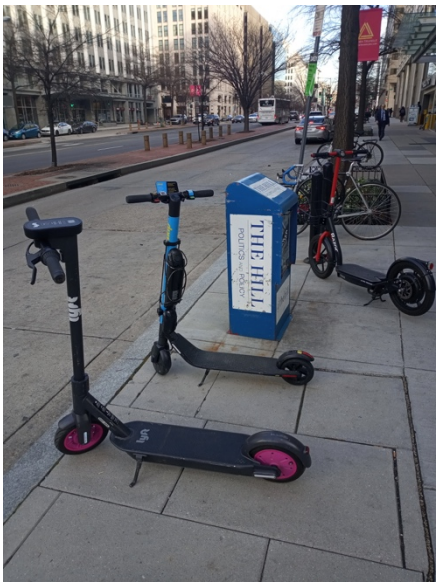
The e-bike industry has made sure that its purchase or "terms of use" agreements with riders contain liability waivers that bar lawsuits against them. Their liability scheme is to accept none of the responsibility for rider injuries, even if a company's gross negligence is to blame, and makes riders agree to assume all the risk.[173]

For example, e-bike rental agreements force riders to, as in NYC's Citi Bike agreement, "release and waive all claims…including those based in contract, tort (including negligence), statutory, or other grounds."[174] Lime's rental agreement bars punitive damages while Citi Bike bans pursuit of compensatory and punitive damages.[175]

What's more, standard homeowners' insurance policies typically exclude motorized vehicles, leaving e-bike riders without liability coverage in the event of an accident.[176] Additionally, e-bikes often don't qualify for coverage under traditional auto insurance policies.[177] This gap can leave riders personally liable for injuries resulting from accidents, often leading to financial hardship.[178]

And as if liability waivers were not bad enough, these contracts and terms of use agreements also contain sweeping forced arbitration clauses and class action bans.[179] That means if there is a dispute, injured victims must resolve them in secretive, rigged, corporate-controlled private proceedings where information is kept hidden from regulators and the public and there is no right to appeal. These clauses also typically prevent claimants from joining together with others in class action lawsuits.

E-SCOOTERS



As with e-bikes, e-scooters have also surged in popular use. For example, in 2017, "there were virtually zero shared e-scooter trips in the U.S."[180] Six years later, in 2023, riders took 65 million trips on dockless e-scooters, forty percent of which took place in 10 major metropolitan areas: Los Angeles; Washington, DC; Denver, CO; Seattle, WA; Austin, TX; Atlanta, GA; New York City, NY; Baltimore, MD; Nashville, TN; and Portland, OR.[181] By 2024, 130 cities had a total of 194 e-scooter systems.[182]

While e-scooters offer a convenient and cost-effective mode of transportation, they also present serious safety issues. The most recent data from the CPSC show:

- E-scooter crashes led to over 189,500 emergency room visits between 2017 and 2022, e-scooter injuries increased by more than 45 percent annually during this six-year period,[183] and "e-scooter riders were more likely to sustain internal injuries than conventional scooter riders."[184]

- From 2017-2022, there were 111 known deaths associated with e-scooters, amounting to 48 percent of total reported deaths related to micromobility products (*i.e.*, "e-scooters (including dockless/rental e-scooters), hoverboards, and e-bikes"[185]). Notably, four deaths were caused by e-scooter battery fires.[186]

In fact, of all the problems CPSC investigated, fire hazards were the biggest. This is no surprise given the many recent headlines: "Battery malfunction in electric scooter sparks Ann Arbor fire,"[187] "1 man dead, 1 hurt after Bronx apartment fire; e-scooter battery identified as cause,"[188] "E-scooter sparks deadly NYC fire, killing 69-year-old resident trapped in his apartment: FDNY,"[189] "E-scooter battery explodes, starts fire at Portland apartment complex; authorities issue warning,"[190] "Five injured in Chelsea apartment fire caused by scooter battery explosion,"[191] "House fire started by E-scooter, 2 people sent to the hospital,"[192] "San Francisco e-scooters are bursting into flames. Lawmakers want action,"[193] "Brooklyn fire that killed 3 family members was caused by lithium-ion battery in e-scooter, officials say,"[194] "43 Injured In Manhattan High-Rise Fire Caused by Electric Scooter."[195]

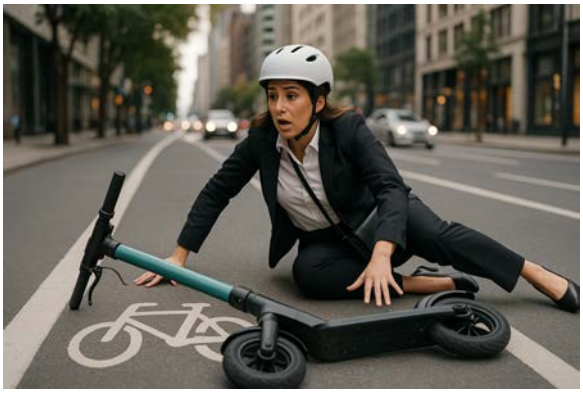
Aside from fires, other common e-scooter problems include bad brakes, stuck throttles, sudden acceleration and power loss that "caused the rider(s) to tip over or get thrown off."[196]

What's more, all of these numbers and reports, already alarming, are likely severe undercounts.[197] Underreporting and data discrepancies are also complicating state and local efforts to establish e-scooter

"rules of the road," such as to when they can be ridden, speed limits and age requirements.[198] As with EVs generally, the system relies on self-policing by manufacturers to decide whether their e-scooter is safe enough to meet voluntary safety standards[199] or issue recalls.[200] When the federal government does take action, it's after users have been harmed or exposed to serious danger.[201]

LEGAL RIGHTS AND INSURANCE

As with e-bikes, victims injured or killed by e-scooters face significant obstacles when it comes to accessing the civil justice system. That's because e-scooter companies require users to agree to contracts that typically waive their right to sue and seek compensation, hiding elimination of their legal rights in the dense fine print, ultimately leaving riders with little recourse. Examples include Lime's "User Agreement,"[202] Lyft's "Terms of Service,"[203] Spin's "Terms of Use" agreement[204] and Veo's "User Agreement."[205]



These companies also require that all disputes be resolved in private, secret forced arbitration systems, and they prevent riders from joining with others in class actions.[206] In other words, riders have no right to have their disputes resolved by judges or juries and must instead submit to a company-controlled system, rigged in the company's favor, with no meaningful right to appeal.

Bankruptcies have also wiped out the legal rights of those injured or killed. For example, e-scooter leader Bird filed for and then emerged from Chapter 11 bankruptcy in 2024 with a new parent company.[207] The bankruptcy plan created a claims trust that not only "resolved" and ended all nationwide legal claims and lawsuits against Bird but also barred any new claims against insurers and municipalities funding the settlement. According to reports, "There are more than 200 lawsuits nationwide asserting claims of more than $384 million," which is "far beyond the $19.2 million in the compensation fund." As of publication, claimants were appealing approval of the plan.[208]

Regarding insurance, the extent of coverage for e-scooter accidents remains uncertain. Some companies, like Bird, do not offer liability insurance for their U.S. riders, and Lime's $10,000 policy limit is extremely low. Otherwise, the courts have not been clear whether insurance covers motorized scooters. As some experts put it, "Because insurance policies use different defined (or undefined) terms to limit coverage, whether a scooter rider will have coverage under their own policy is anything but clear."[209] In other words, "for now, electric scooter users could be riding at their own risk."

NOTES

[1] Tim Nostrand, "Thomas Edison: Unacknowledged Driver of Today's Electric Vehicles," *NJ Spotlight News*, December 26, 2019, https://www.njspotlightnews.org/2019/12/thomas-edison-unacknowledged-driver-of-todays-electric-vehicles

[2] Savannah Welch, "Tesla owner responds to car catching fire in California," *KBAK/KBFX* (California City, CA), May 23, 2022, https://katv.com/news/nation-world/tesla-owner-responds-to-car-catching-fire-usc-university-of-southern-california-tesla-model-3-flames-car-seat-graduation-bakersfield-howitbroke-electric-kia-chevrolet-models-electric-vehicle-ev-fires

[3] U.S. Department of Energy, "The History of the Electric Car," September 15, 2014, https://www.energy.gov/articles/history-electric-car

[4] *See, e.g.,* International Energy Agency, "Electric Vehicles," https://www.iea.org/energy-system/transport/electric-vehicles (viewed April 8, 2025) ("Electric vehicles are the key technology to decarbonise road transport, a sector that accounts for around one-sixth of global emissions. Ambitious policies continue to be critical to growth in electric vehicle markets worldwide."); U.S. Environmental Protection Agency, "Carbon Pollution from Transportation," May 14, 2024, https://www.epa.gov/transportation-air-pollution-and-climate-change/carbon-pollution-transportation ("Greenhouse gas (GHG) emissions from transportation account for about 28 percent of total U.S. greenhouse gas emissions, making it the largest contributor of U.S. GHG emissions.")

[5] Neal E. Boudette, "E.V. Demand Leads Automakers to a Strong 2024 Finish," *New York Times*, January 3, 2025, https://www.nytimes.com/2025/01/03/business/ford-gm-vehicle-sales.html. *But see*, Alexa St. John, "US electric vehicle industry is collateral damage in Trump's escalating trade war," *Associated Press*, April 4, 2025, https://apnews.com/article/trump-tariffs-electric-vehicles-automakers-a106cce5b6acbf5d14ad1e583e301b50

[6] Neal E. Boudette, "E.V. Demand Leads Automakers to a Strong 2024 Finish," *New York Times*, January 3, 2025, https://www.nytimes.com/2025/01/03/business/ford-gm-vehicle-sales.html

[7] Chris Isidore, "Tesla sales plunge: Biggest decline in history," *CNN*, April 2, 2025, https://www.cnn.com/2025/04/02/business/tesla-sales/index.html

[8] According to Kelley Blue Book, the top 10 EV manufacturers by U.S. market share in 2024 were: 1. Tesla (48.7%); 2. Hyundai (9.5%) (includes Hyundai, Kia, Genesis); 3. GM (8.7%) (includes Chevrolet, Cadillac, GMC, BrightDrop); 4. Ford (7.5%); 5. BMW (4.2%) (includes BMW, Mini); 6. Rivian (4%); 7. Volkswagen (3.7%) (includes Audi, Porsche, VW); 8. Honda (3.1%) (includes Honda, Acura); 9. Nissan (2.4%); and 10. Toyota (2.1%) (includes Toyota, Lexus). Kelley Blue Book, *Electric Vehicle Sales Report Q4 2024*, https://www.coxautoinc.com/wp-content/uploads/2025/01/Q4-2024-Kelley-Blue-Book-EV-Sales-Report-revised.pdf

[9] Julia Shapero and Rachel Frazin, "Conservatives embrace Tesla as liberals ditch Elon Musk," *The Hill*, March 26, 2025, https://thehill.com/policy/technology/5213358-tesla-politics-conservatives-liberals

[10] Stephen Edelstein, "Florida is second only to California in EV sales: How'd that happen?" *Green Car Reports*, March 3, 2025, https://www.greencarreports.com/news/1145877_florida-is-second-only-to-california-in-ev-sales; U.S. Department of Energy, "Electric Vehicle Registrations by State," https://afdc.energy.gov/data/10962#:~:text=Source:%20Vehicle%20registration%20counts%20derived,counts%20over%20time%2C%20see%20TransAtlas (updated September 2024).

[11] Corey Cantor, "Every Third Car Sold in US Could Be Electric by 2027," *BloombergNEF*, July 2, 2024, https://about.bnef.com/blog/every-third-car-sold-in-us-could-be-electric-by-2027

[12] Valerie Volcovici, "EPA to roll back regulations on power plant emissions, tailpipe pollution," *Reuters*, March 12, 2025, https://www.usatoday.com/story/news/politics/2025/03/12/epa-rollback-emissions-tailpipe-pollution/82325517007/

[13] It is no secret that as President, Trump has tried to advantage Tesla in a number of ways. *See*, *e.g.*, David Ingram, "Trump turns the White House lawn into a Tesla showroom," *NBC News*, March 11, 2025,

https://www.nbcnews.com/tech/elon-musk/trump-musk-tesla-white-house-showroom-buys-car-rcna195905. As is well known, despite President Biden's historically pro-EV administration, Tesla's Elon Musk contributed at least $260 million to elect Trump in 2024. *See, e.g.,* Fredreka Schouten, David Wright and Alex Leeds Matthews, "Musk spent more than a quarter-billion dollars to elect Trump, including funding a mysterious super PAC, new filings show," *CNN*, December 6, 2024, https://www.cnn.com/2024/12/05/politics/elon-musk-trump-campaign-finance-filings/index.html. Some believe Musk's political turn was connected to an EV-related insult, namely the exclusion of non-union Tesla from a 2021 EV summit at the White House. Isobel Asher Hamilton, "Elon Musk claimed the Biden administration is 'biased' against Tesla and 'controlled by unions,' his third attack on the president in the past month," *Business Insider*, September 29, 2021, https://tech.yahoo.com/general/articles/elon-musk-claimed-biden-administration-091720674.html ("'Biden held this EV summit, didn't invite Tesla. Invited GM, Ford, Chrysler, and UAW [United Auto Workers Union]. An EV summit at the White House. Didn't mention Tesla once, and praised GM and Ford for leading the EV revolution,' Musk said.")

[14] In February 2025, the U.S. Department of Transportation told states to stop following Biden administration guidance and stop spending money to develop a nationwide network of electric vehicle charging stations, a move that will hurt Tesla's competitors. Maya Yang, "Trump administration suspends $5bn electric vehicle charging program," *Guardian*, February 7, 2025, https://www.theguardian.com/us-news/2025/feb/07/trump-electric-vehicle-charging-station-program

[15] Chris Isidore, "Trump may end the $7,500 EV tax credit. Elon Musk and Tesla would reap the rewards," *CNN*, November 15, 2024, https://www.cnn.com/2024/11/15/business/musk-tesla-trump-ev-tax-credit/index.html

[16] Alexa St. John, "US electric vehicle industry is collateral damage in Trump's escalating trade war," *Associated Press*, April 4, 2025, https://apnews.com/article/trump-tariffs-electric-vehicles-automakers-a106cce5b6acbf5d14ad1e583e301b50. The tariffs may affect Tesla less than other companies. *See, e.g.,* Jack Ewing, "Tariffs Are Bad for E.V.s, but Some Models May Have a Leg Up," *New York Times*, April 27, 2025, https://www.nytimes.com/2025/04/27/business/tariffs-tesla-volkswagen-evs.html; Jim Gorzelany, "Tesla Vehicles Will Be The Least Affected By Trump's Tariffs, Statistics Suggest," *Forbes*, April 4, 2025, https://www.forbes.com/sites/jimgorzelany/2025/04/04/these-vehicles-will-be-the-least-affected-by-trumps-tariffs-statistics-show

[17] Jay Ramey, "Waymo Teams Up with This Automaker on EV Robotaxis," *Autoweek*, October 7, 2024, https://www.autoweek.com/news/a62529483/waymo-hyundai-ioniq-5-robotaxi. Notably, Waymo also recently announced an AV partnership with Toyota focused on personally-owned vehicles. *See*, Caleb Miller, "Toyota and Waymo Will Co-Develop a New Autonomous Vehicle Platform, *Car and Driver,* May 1, 2025, https://www.caranddriver.com/news/a64644557/toyota-waymo-autonomous-vehicle-partnership/

[18] William Gavin, "Elon Musk says Tesla will open ride-hailing to the public in two states next year," *Quartz*, October 23, 2024, https://qz.com/elon-musk-tesla-ride-hail-robotaxi-network-uber-fsd-1851679734

[19] Benton Graham, "Lyft tackles rideshare drivers' EV range anxiety," *Smart Cities Dive*, September 25, 2024, https://www.smartcitiesdive.com/news/lyft-smartcar-tackles-ev-rideshare-drivers-range-anxiety/728037; Alexandra Tremayne-Pengelly, "Uber Is Going Electric Fast – But Its CEO Says It's Not Enough to Hit Climate Goals," *Observer*, September 23, 2024, https://observer.com/2024/09/uber-ceo-dara-khosrowshahi-ev-strategy

[20] Lori Aratani, "Electric air taxis are taking flight. Can they succeed as a business?" *Washington Post*, December 28, 2024, https://www.washingtonpost.com/transportation/2024/12/29/air-taxi-ev-electric-commuter-flight

[21] *See, e.g.,* Center for Justice & Democracy, "Autonomous Vehicles and The Importance of Banning Forced Arbitration Clauses," May 31, 2021, https://centerjd.org/content/fact-sheet-autonomous-vehicles-and-importance-banning-forced-arbitration-clauses

[22] For example, one recent case concerned Hyundai Ioniq 5, Ioniq 6, Genesis GV60 and Kia EV6 owners and lessees who filed a class-action alleging the manufacturers hid a defect that "overheats chargers within 30 minutes, forcing drivers to manually restart the charge, or deal with empty batteries when they return to their vehicles." Gina Kim, "Hyundai, Kia Owners Say Electric Vehicle Chargers Overheat," *Law360*, July 26, 2023, https://www.law360.com/articles/1704300/hyundai-kia-owners-say-electric-vehicle-chargers-overheat, discussing *Gould v. Hyundai Motor Company*, Case No. 8:23-cv-01344 (C.D. Cal.) (original complaint, July 26, 2023). The automakers sought to compel arbitration, arguing that the consumers had agreed to individual arbitration when

they clicked a box during the digital sign-up process for Hyundai and Kia vehicle systems that enabled customers to remotely manage their EVs, including charging. Despite the fact that the owners and lessees did not know about the arbitration provisions – which deprived them of a chance to opt out – in January 2025, the court ruled that their claims belonged in arbitration. Shweta Watwe, "Hyundai, Kia Get Defective Charging Suit Sent to Arbitration," *Bloomberg Law*, January 6, 2025, https://www.bloomberglaw.com/bloomberglawnews/product-liability-and-toxics-law/XB8VQLI4000000; *Gould v. Hyundai Motor Company*, 2025 U.S. Dist. LEXIS 1307.

[23] *See, e.g.,* Mike Scarcella, "Tesla wins ruling to limit damages in US lawsuit over Autopilot crash," *Reuters*, February 26, 2025, https://www.reuters.com/legal/litigation/tesla-wins-ruling-limit-damages-us-lawsuit-over-autopilot-crash-2025-02-26; Tom Krisher, "US to probe Tesla's 'Full Self-Driving' system after pedestrian killed in low visibility conditions," *Associated Press*, October 18, 2024, https://apnews.com/article/tesla-full-self-driving-investigation-pedestrian-killed-f2121166d60d85bd173a734c91049e73

[24] Chris Marquette, "'Deeply concerned': Crash victims' families ask DOT not to water down Tesla oversight," *Politico*, March 19, 2025, https://www.politico.com/news/2025/03/19/deeply-concerned-crash-victims-families-ask-dot-not-to-water-down-tesla-oversight-00236890. Notably, on April 24, 2025, the U.S. Department of Transportation announced a new AV "framework" that will allow domestically built AVs to be exempt from Federal Motor Vehicle Safety Standards and will "dilute" crash reporting requirements. *See*, "Statement by Cathy Chase, President of Advocates for Highway and Auto Safety (Advocates), on New Automated Vehicle Framework Announced Today by Transportation Secretary Sean Duffy," Advocates for Highway and Auto Safety, April 24, 2025, https://saferoads.org/2025-nhtsa-av-framework-statement/

[25] *See*, *e.g.*, Dan Becker and James Gerstenzang, "Safety sacrificed in NHTSA revolving door: Highway agency sacrifices safety and the environment for cronyism," *USA TODAY*, February 25, 2025, https://www.usatoday.com/story/opinion/2015/02/25/nhtsa-revolving-door-cronyism-highway-column/23966219

[26] *See*, *e.g.*, Letters from Advocates for Highway and Auto Safety et al. to U.S. Senator Patty Murray, Chair, Committee on Appropriations, et al., regarding Fiscal Year 2024 and 2025 Budgets for the U.S. Department of Transportation, March 22, 2023 and May 1, 2024, respectively, https://www.apha.org/-/media/files/pdf/advocacy/letters/2023/230322_fy24_thud_dot_senate.pdf and https://saferoads.org/wp-content/uploads/2024/05/Group-Letter-to-Senate-Appropriations-Subcommittee-on-THUD-on-FY-2025-DOT-Funding-5-1-24.pdf

[27] National Highway Traffic Safety Administration, "Federal Motor Vehicle Safety Standards; FMVSS No. 305a Electric-Powered Vehicles: Electric Powertrain Integrity Global Technical Regulation No. 20 Incorporation by Reference," 89 FR 104318, December 20, 2024, https://www.federalregister.gov/documents/2024/12/20/2024-28707/federal-motor-vehicle-safety-standards-fmvss-no-305a-electric-powered-vehicles-electric-powertrain. *See also*, Nicholas Faenza, "NHTSA Proposes New EV Safety Standards," *Exponent*, May 28, 2024, https://www.exponent.com/article/nhtsa-proposes-new-ev-safety-standards; National Highway Traffic Safety Administration, "Federal Motor Vehicle Safety Standards; FMVSS No. 305a Electric-Powered Vehicles: Electric Powertrain Integrity Global Technical Regulation No. 20 Incorporation by Reference," 89 FR 26704, April 15, 2024, https://www.federalregister.gov/documents/2024/04/15/2024-07646/federal-motor-vehicle-safety-standards-fmvss-no-305a-electric-powered-vehicles-electric-powertrain. It remains to be seen whether Congress will void this regulation under the Congressional Review Act, 5 U.S.C. § 801. However, given there was not a great deal of pushback from the industry over this rule, it may escape a "disapproval" resolution by Congress.

[28] *See*, *e.g.*, James R. Hood, "Safety regulators delay recall of 50 million airbag inflators," *Consumer Affairs*, December 19, 2024, https://www.consumeraffairs.com/news/safety-regulators-delay-recall-of-50-million-airbag-inflators-121924.html (NHTSA has "been studying 50 million airbags in 13 kinds of cars for eight years with no decision. Now it says it needs more time to study the situation. …NHTSA first called for a voluntary recall in May 2023, but manufacturers have resisted. Further action will depend on the ongoing investigation."); Letter from U.S. Senator Edward Markey et al. to National Highway Traffic Safety Administration Deputy Administrator Sophie Shulman, November 20, 2024, https://www.markey.senate.gov/imo/media/doc/nhtsa_traffic_safety_letter2.pdf ("NHTSA has more work to do. The agency must still finalize some of its proposed rules and has not yet issued rules for many provisions – rules that are already overdue or nearing their statutory deadline."); Office of Inspector General, U.S. Department of Transportation, "NHTSA Has Not Fully Established and Applied Its Risk-Based Process for Safety Defect Analysis," May 31, 2023, https://www.oig.dot.gov/library-item/39520 (The audit made 12

recommendations after finding that NHTSA hadn't fully implemented or applied efforts to use a risk-based approach to analyze safety defects in vehicles; hadn't consistently prioritized safety issues based on risk, which could lead to delays in addressing the most critical defects; and faced challenges in managing and analyzing the large volume of data it collects, hindering the agency's ability to identify and respond to safety defects effectively. It took NHTSA over a year to address 10 of the recommendations…five of them in June, one in September and four in October 2024.)

[29] *See* 49 U.S.C. § 30115.

[30] Laurence Darmiento, "EV maker Fisker to be liquidated under plan to keep owners on the road," *Los Angeles Times*, August 24, 2024, https://www.latimes.com/business/story/2024-08-24/fisker-bankruptcy-ocean-car-owners-shareholders-chapter-7-11

[31] William Gavin, "EV makers Lucid and Fisker are recalling thousands of electric sedans and SUVs over power issues," *Quartz*, July 9, 2024, https://qz.com/fisker-ocean-suv-lucid-air-sedan-ev-recall-power-loss-1851582207; Sean O'Kane, "Fisker Ocean owners flagged sudden power loss and brake problems for months, internal documents show," *TechCrunch*, February 9, 2024, https://techcrunch.com/2024/02/09/fisker-ocean-braking-power-loss-problems-investigation

[32] Ibid.

[33] Christopher Smith, "Tesla Recalled the Most Cars In 2024," *Motor1*, December 31, 2024, https://www.motor1.com/features/745854/most-car-recalls-2024-list-tesla. *See also*, Lora Kolodny, "Tesla recalling 239,000 vehicles in U.S. over rearview camera failures," *CNBC*, January 10, 2025, https://www.cnbc.com/2025/01/10/tesla-recalling-239000-vehicles-in-us-over-rearview-camera-failures.html

[34] Michelle Chapman, "Tesla recalling almost 700,000 vehicles due to tire pressure monitoring system issue," *Associated Press*, December 20, 2024, https://apnews.com/article/tesla-musk-recall-cybertruck-e78b0f3421c538a3f0bb4bba0bda0549

[35] "Tesla recalls nearly 700,000 vehicles in US over tire pressure monitoring system issue," *Reuters*, December 20, 2024, https://www.reuters.com/business/autos-transportation/tesla-recalls-nearly-700000-vehicles-us-over-tire-pressure-monitoring-system-2024-12-20

[36] Ryan De Villiers, "The Automakers With The Most Recalls In 2024," *CarBuzz*, December 31, 2024, https://carbuzz.com/the-automakers-with-the-most-recalls-so-far-in-2024; Kate Irwin, "Tesla Cybertruck Gets 6th Recall Over Sudden Loss of Drive Power," *PC Magazine*, November 13, 2024, https://www.pcmag.com/news/tesla-cybertruck-gets-6th-recall-over-sudden-loss-of-drive-power; David Shepardson, "Tesla recalls 2,400 Cybertrucks, 6th callback for the pickups this year," *Reuters*, November 13, 2024, https://www.reuters.com/business/autos-transportation/tesla-is-recalling-over--vehicles-us-nhtsa-says-2024-11-13

[37] David Shepardson and Aditya Soni, "Tesla recalls 376,000 vehicles in US over power steering, shares drop," *Reuters*, February 21, 2025, https://www.reuters.com/business/autos-transportation/tesla-recalls-380000-vehicles-us-over-power-steering-issue-2025-02-21; Mike Snider, "More than 370,000 Tesla vehicles recalled over power steering malfunctions," *USA TODAY*, February 21, 2025, https://www.usatoday.com/story/money/cars/recalls/2025/02/21/tesla-recall-power-steering/79434442007

[38] "Hyundai, Kia recall over 208,000 electric vehicles to fix problem that can cause loss of power," *Associated Press*, November 22, 2024, https://apnews.com/article/hyundai-kia-electric-vehicle-recalls-loss-drive-power-383e78a62418ea355f00823d01350654; Caleb Miller, "Hyundai, Kia, and Genesis Recall over 147K EVs for Potential Power Loss," *Car and Driver*, March 25, 2024, https://www.caranddriver.com/news/a60295235/hyundai-ioniq-5-kia-ev6-genesis-gv60-ev-power-loss-recall

[39] Kalea Hall, "GM issues Cadillac Lyriq recall for software issue affecting braking system," *Detroit News*, August 14, 2024, https://www.detroitnews.com/story/business/autos/general-motors/2024/08/14/recall-software-glitch-on-cadillac-lyriq-ev-could-cause-braking-issue/74794760007. *See also*, Eric Walz, "GM recalls over 21K Cadillac Lyriq EVs," *Automotive Dive*, August 15, 2024, https://www.automotivedive.com/news/gm-recalls-cadillac-lyriq-ev-abs-braking-fault-software-nhtsa/724375

[40] Jamie L. LaReau, "GM lifts stop-sale on Blazer EV and lowers the price," *Detroit Free Press*, March 8, 2024, https://www.freep.com/story/money/cars/general-motors/2024/03/08/gm-blazer-ev-stop-sale-lifted-lower-

price/72896365007; "GM to resume sales of Chevy Blazer EV after software issues prompted a stop sale late last year," *Associated Press*, March 8, 2024, https://apnews.com/article/general-motors-electric-vehicle-blazer-sales-b8ac1f64a1ef77d63579bf221901ffbe; Justin Westbrook, "GM Ends Chevy Blazer EV SUV Stop Sale," *MotorTrend*, February 22, 2024, https://www.motortrend.com/news/2024-chevy-blazer-ev-suv-stop-sale

[41] Sophia Pargas, "Over 60,000 Volkswagen and Audi electric cars recalled for risk of rollaway," *NBC News*, March 3, 2025, https://www.nbcnews.com/news/us-news/60000-volkswagen-audi-electric-cars-recalled-risk-rollaway-rcna194598

[42] Eric Walz, "VW recalls nearly 14,000 Audi e-trons and ID.4 SUVs for battery charging problem," *Automotive Dive*, March 17, 2025, https://www.automotivedive.com/news/vw-recalls-id4-audi-etron-nhtsa-battery-issue/742344; National Highway Traffic Safety Administration, "Loss of Drive Power from Charging Unit Failure," NHTSA Campaign Number: 25V125000, February 28, 2025, https://www.nhtsa.gov/recalls?nhtsaId=25V125000

[43] Center for Auto Safety, "Bigger is not better," https://www.autosafety.org/enormous-electric-vehicles (viewed November 8, 2024).

[44] Center for Auto Safety, "Bigger is not better," https://www.autosafety.org/enormous-electric-vehicles (viewed November 8, 2024); Kris Van Cleave, "As electric vehicles become more common, experts worry they could pose a safety risk for other drivers," *CBS Evening News*, June 13, 2023, https://www.cbsnews.com/news/electric-vehicle-safety-heavy-battery; National Transportation Safety Board, "In TRB Keynote, NTSB Chair Focuses on Victims of Transportation Crashes," January 11, 2023, https://www.ntsb.gov/news/press-releases/Pages/NR20230111A.aspx; David Shepardson, "U.S. NTSB chair raises safety concerns about heavy electric vehicles," *Reuters*, January 11, 2023, https://www.reuters.com/business/autos-transportation/us-ntsb-chair-raises-safety-concerns-about-heavy-electric-vehicles-2023-01-11; "NTSB head warns of risks posed by heavy electric vehicles colliding with lighter cars," *Associated Press*, January 11, 2023, https://www.npr.org/2023/01/11/1148483758/ntsb-heavy-electric-vehicles-safety-risks

[45] Margery A. Beck, "Crash tests indicate nation's guardrail system can't handle heavy electric vehicles," *Associated Press*, January 31, 2024, https://apnews.com/article/electric-vehicles-crash-test-guardrails-nebraska-3ec299a7ad87d0f63a6dd9357f663fce

[46] Ibid.

[47] Office of U.S. Senator Deb Fischer, "Fischer Presses NTSB Chair on Safety Risks of EVs, Dangers to First Responders," March 7, 2024, https://www.fischer.senate.gov/public/index.cfm/2024/3/fischer-presses-ntsb-chair-on-safety-risks-of-evs-dangers-to-first-responders; Testimony of National Transportation Safety Board Chair Jennifer Homendy before U.S. Senate Commerce, Science and Transportation Committee, Hearing on "NTSB Investigations Report," March 6, 2024, https://www.commerce.senate.gov/services/files/52A4EE99-E7EF-48A7-86D4-481244B07FCD

[48] Insurance Institute for Highway Safety, "As heavy EVs proliferate, their weight may be a drag on safety," March 9, 2023, https://www.iihs.org/news/detail/as-heavy-evs-proliferate-their-weight-may-be-a-drag-on-safety

[49] Dan Albert, "Extreme Acceleration Is the New Traffic Safety Frontier," *Bloomberg*, January 6, 2023, https://www.bloomberg.com/news/features/2023-01-06/welcome-to-the-age-of-extreme-acceleration. *See also*, Gersh Kuntzman, "CRASH TEST: Electric Cars are More Dangerous than Conventional Cars, Says Global Insurance Company," *Streetsblog NYC*, September 9, 2022, https://nyc.streetsblog.org/2022/09/09/crash-test-electric-cars-are-more-dangerous-than-conventional-cars-says-global-insurance-company

[50] Eric Brandt, "Regenerative Brakes: How Do They Work?" *Kelley Blue Book*, October 3, 2023, https://www.kbb.com/car-advice/regenerative-brakes-how-they-work

[51] Insurance Institute for Highway Safety, "As heavy EVs proliferate, their weight may be a drag on safety," March 9, 2023, https://www.iihs.org/news/detail/as-heavy-evs-proliferate-their-weight-may-be-a-drag-on-safety

[52] Eric Brandt, "Regenerative Brakes: How Do They Work?" *Kelley Blue Book*, October 3, 2023, https://www.kbb.com/car-advice/regenerative-brakes-how-they-work; Joe Holding, "What is regen braking and is it actually useful?" *Top Gear*, April 18, 2023, https://www.topgear.com/car-news/electric/what-regen-braking-and-it-actually-useful; Insurance Institute for Highway Safety, "As heavy EVs proliferate, their weight may be a drag on safety," March 9, 2023, https://www.iihs.org/news/detail/as-heavy-evs-proliferate-their-weight-may-be-a-drag-on-

safety; Zach Hurst, "The Hidden Dangers of Traditional Brake Pads," *EV Resource*, March 5, 2023, https://www.ev-resource.com/articles/the-hidden-dangers-of-traditional-brake-pads

[53] University of Miami Miller School of Medicine, "Electric Vehicle Fire Staged to Study Environmental, Health Ramifications," September 9, 2024, https://news.med.miami.edu/electric-vehicle-fire-staged-to-study-environmental-health-ramifications

[54] "DOT meeting highlights numerous safety issues surrounding electric vehicle batteries," *Land Line*, August 30, 2024, https://landline.media/dot-meeting-highlights-numerous-safety-issues-surrounding-electric-vehicle-batteries

[55] Aarian Marshall, "The Auto Industry Finally Has a Plan to Stop Electric Vehicle Fires," *WIRED*, September 15, 2024, https://www.wired.com/story/the-auto-industry-finally-has-a-plan-to-stop-electric-vehicle-fires

[56] Testimony of National Transportation Safety Board Chair Jennifer Homendy before U.S. Senate Commerce, Science and Transportation Committee, Hearing on "NTSB Investigations Report," March 6, 2024, https://www.commerce.senate.gov/services/files/52A4EE99-E7EF-48A7-86D4-481244B07FCD. *See also*, Allyson Chiu, "EV batteries can be risky in wildfires. Here's what to know." *Washington Post*, January 19, 2025, https://www.washingtonpost.com/weather/2025/01/18/battery-ev-los-angeles-fires-cleanup; Piotr Bera, "Burned EVs pose new challenges in Los Angeles fire cleanup," *MSN*, January 17, 2025, https://www.msn.com/en-ca/news/world/burned-evs-pose-new-challenges-in-los-angeles-fire-cleanup/ar-AA1xoFx9; Clara Harter, "Lithium-ion batteries causing fires, dangers on California freeways, sparking calls for safety improvements," *Los Angeles Times*, October 28, 2024, https://www.latimes.com/california/story/2024-10-28/lithium-ion-battery-fires-rampant-safety-fears; Kate Gibson, "Florida fire marshal calls electric vehicles 'ticking time bombs' amid Hurricane Milton flooding," *CBS MoneyWatch*, October 10, 2024, https://www.cbsnews.com/news/hurricane-milton-florida-electric-vehicles-ev-fire-risk; Aarian Marshall, "The Auto Industry Finally Has a Plan to Stop Electric Vehicle Fires," *WIRED*, September 15, 2024, https://www.wired.com/story/the-auto-industry-finally-has-a-plan-to-stop-electric-vehicle-fires; University of Miami Miller School of Medicine, "Electric Vehicle Fire Staged to Study Environmental, Health Ramifications," September 9, 2024, https://news.med.miami.edu/electric-vehicle-fire-staged-to-study-environmental-health-ramifications; Tyson Fisher, "DOT meeting highlights numerous safety issues surrounding electric vehicle batteries," *Land Line*, August 30, 2024, https://landline.media/dot-meeting-highlights-numerous-safety-issues-surrounding-electric-vehicle-batteries; Ishan Thakore, "EVs aren't more likely to ignite, but Colorado firefighters are adapting to the challenge of burning batteries," *CPR News*, August 29, 2024, https://www.cpr.org/2024/08/29/colorado-firefighters-ev-fires; Joann Muller, "Cities aren't ready to handle EV fires, experts say," *Axios*, August 8, 2024, https://www.axios.com/2024/08/08/ev-fires; Office of U.S. Senator Deb Fischer, "Fischer Presses NTSB Chair on Safety Risks of EVs, Dangers to First Responders," March 7, 2024, https://www.fischer.senate.gov/public/index.cfm/2024/3/fischer-presses-ntsb-chair-on-safety-risks-of-evs-dangers-to-first-responders; Testimony of Lori Moore-Merrell, U.S. Fire Administrator, Federal Emergency Management Agency before U.S. House Subcommittee on Emergency Management and Technology, Hearing on "Examining Fire Hazards: Lithium-Ion Batteries and Other Threats to Fire Safety," February 15, 2024, https://homeland.house.gov/wp-content/uploads/2024/02/2024-02-15-EMT-HRG-Testimony.pdf; John Keilman, "Best Way to Extinguish a Flaming Electric Vehicle? Let It Burn," *Wall Street Journal*, November 8, 2023, https://www.wsj.com/business/autos/best-way-to-extinguish-a-flaming-electric-vehicle-let-it-burn-f1fa2b53

[57] Colleen Johnson, "Electric vehicle catches fire, spreads to garage and destroys two other vehicles in Joppa," *FOX45 News* (Baltimore, MD), October 9, 2024, https://www.foxbaltimore.com/news/local/electric-vehicle-catches-fire-spreads-to-garage-and-destroys-two-other-vehicles-in-joppa

[58] "Electric vehicle fire at car dealership draws large response Thursday," *My Edmonds News*, July 12, 2024, https://myedmondsnews.com/2024/07/electric-vehicle-fire-at-car-dealership-draws-large-response-thursday

[59] Helen Smith, "EV Hummer catches fire 3 times after hit-and-run crash; causing driver wanted by police," *King 5* (Seattle, WA), February 23, 2024, https://www.king5.com/article/news/local/bellevue/car-fire-bellevue-hit-and-run/281-d0531e6b-800d-44c2-97ac-51fb2e3b049c; "Search ongoing for hit-and-run driver following I-405 crash that ignites electric Hummer," *KOMO News* (Seattle, WA), February 23, 2024, https://komonews.com/news/local/hit-and-run-collision-electric-vehicle-hummer-i-405-eastbound-interstate-90-no-injuries-washington-state-patrol-troopers-investigation-bellevue-fire-department-bfd-king-county-battery-tow-four-door-audi-black-rims-extinguish-wsdot

[60] Kate Gibson, "Florida fire marshal calls electric vehicles 'ticking time bombs' amid Hurricane Milton flooding," *CBS MoneyWatch*, October 10, 2024, https://www.cbsnews.com/news/hurricane-milton-florida-electric-vehicles-ev-fire-risk; Catherine Boudreau, "Viral videos of EVs catching fire after Hurricane Helene raise safety concerns in Florida," *Business Insider*, October 3, 2024, https://www.businessinsider.com/florida-ev-battery-fires-safety-hurricane-helene-2024-10; Josh Funk, "Officials warn that EVs could catch fire if inundated with saltwater from Hurricane Helene," *Associated Press*, September 27, 2024, https://apnews.com/article/hurricane-helene-electric-vehicles-fire-flooding-0284e2eb2accc0570361def4e963eda0; Tyson Fisher, "DOT meeting highlights numerous safety issues surrounding electric vehicle batteries," *Land Line*, August 30, 2024, https://landline.media/dot-meeting-highlights-numerous-safety-issues-surrounding-electric-vehicle-batteries

[61] John Snyder, "Here are all the EVs with 800V charging available in 2024," *AutoBlog*, May 31, 2024, https://www.autoblog.com/news/800-volt-electric-vehicles-list; Maddie Stone and *Grist*, "EV Batteries Are Dangerous to Repair. Here's Why Mechanics Are Doing So Anyway," *Scientific American*, December 25, 2023, https://www.scientificamerican.com/article/ev-batteries-are-dangerous-to-repair-heres-why-mechanics-are-doing-so-anyway; Larry Alton, "The Dark Side of Electric and Self-Driving Vehicles," *American Thinker*, October 6, 2022, https://www.americanthinker.com/articles/2022/10/the_dark_side_of_electric_and_selfdriving_vehicles.html; Kalea Hall and Breana Noble, "Electric vehicles are changing how first responders fight fires," *Detroit News*, March 17, 2022, https://www.detroitnews.com/in-depth/business/autos/2022/03/17/electric-vehicles-changing-how-first-responders-fight-fires/6117475001

[62] Joseph Henry, "Tesla Owner Warns Drivers After Being Trapped Inside Car," *Tech Times*, June 20, 2024, https://www.techtimes.com/articles/305892/20240620/tesla-owner-warns-drivers-being-trapped-inside-car.htm; Eva Roytburg, "A toddler was trapped in a Tesla after its battery died without warning amid record heat waves – 'safety comes last' at Tesla, expert says," *Fortune*, June 20, 2024, https://fortune.com/2024/06/20/tesla-trapped-toddler-in-car-arizona-heat-renee-sanchez-firefighters-safety-last; Colin Stanton and Gary Harper, "Toddler trapped in car when Tesla battery dies in Scottsdale," *AZ Family*, June 19, 2024, https://www.azfamily.com/2024/06/20/toddler-trapped-car-when-tesla-battery-dies-scottsdale; Molly Glick, "Electric Vehicles Aren't Ready for Extreme Heat and Cold. Here's How to Fix Them," *Scientific American*, February 15, 2024, https://www.scientificamerican.com/article/electric-vehicles-arent-ready-for-extreme-heat-and-cold-heres-how-to-fix-them; Emily Pandise and Lora Kolodny, "EV drivers wrestle with cold weather sapping their battery range," *CNBC*, January 18, 2024, https://www.nbcnews.com/business/autos/ev-battery-range-cold-weather-charging-rcna134355

[63] Joann Muller, "Buggy software is dogging the switch to electric cars," *Axios*, January 31, 2024, https://www.axios.com/2024/01/31/gm-ev-electric-vehicle-error-software

[64] Zachary Visconti, "EV owners noticing accelerated tire wear and tear: J.D. Power," *Teslarati*, March 26, 2024, https://www.teslarati.com/ev-owners-tire-wear-jd-power; Shannon Thaler, "Electric vehicles release more toxic emissions, are worse for the environment than gas-powered cars: study," *New York Post*, March 5, 2024, https://nypost.com/2024/03/05/business/evs-release-more-toxic-emissions-are-worse-for-the-environment-study

[65] Shannon Thaler, "Electric vehicles release more toxic emissions, are worse for the environment than gas-powered cars: study," *New York Post*, March 5, 2024, https://nypost.com/2024/03/05/business/evs-release-more-toxic-emissions-are-worse-for-the-environment-study; David Zipper, "EVs Are Sending Toxic Tire Particles Into the Water, Soil, and Air," *Atlantic*, July 19, 2023, https://www.theatlantic.com/technology/archive/2023/07/electric-vehicles-tires-wearing-out-particulates/674750

[66] David Zipper, "EVs Are Sending Toxic Tire Particles Into the Water, Soil, and Air," *Atlantic*, July 19, 2023, https://www.theatlantic.com/technology/archive/2023/07/electric-vehicles-tires-wearing-out-particulates/674750

[67] Ibid.

[68] J.D. Power, "Problems Plague BEVs Despite Traditional OEMs Leveling Playing Field with Tesla, J.D. Power Finds," June 27, 2024, https://www.jdpower.com/business/press-releases/2024-us-initial-quality-study-iqs

[69] Tom Krisher, "Consumer Reports survey finds electric vehicle reliability improving but lagging gas models," *Associated Press*, December 5, 2024, https://apnews.com/article/electric-vehicle-plugin-reliability-consumer-reports-d249508a9cda5b9b4087335474c0449e

[70] Hyunjoo Jin et al., "Tesla blamed drivers for failures of parts it long knew were defective," *Reuters*, December 20, 2023, https://www.reuters.com/investigates/special-report/tesla-musk-steering-suspension

[71] Center for Auto Safety, "Federal Lemon Law," https://www.autosafety.org/federal-lemonlaw (viewed December 20, 2024).

[72] *See*, *e.g.*, BBB National Programs, "Lemon Laws Listed by State," https://bbbprograms.org/programs/all-programs/bbb-autoline/lemon-laws-by-state (viewed December 22, 2024).

[73] BBB National Programs Auto Line Team, "3 Things to Know Before Filing an EV Lemon Law Claim," May 28, 2024, https://www.lexology.com/library/detail.aspx?g=343f117a-7c09-477c-a7b9-db1ab690da97. It should be noted, however, that some car companies are able to completely defeat the purpose of lemon laws by engaging in "lemon law laundering." This is where automakers illegally resell defective vehicles to new customers without fixing the defects or disclosing their problematic history. Christopher Jensen, "For Car Buyers Who Got a Lemon, State Laws Vary Widely," *New York Times*, February 6, 2019, https://www.nytimes.com/2019/02/06/automobiles/car-lemon-laws-states.html

[74] For example, Californians who buy a used car with an active manufacturer's warranty aren't covered under the state's lemon law. As *Carscoops* put it, "For second-hand buyers, that effectively puts a giant asterisk next to 'warranty coverage,' limiting their ability to fight back against carmakers when repairs fail to resolve major issues." Thanos Pappas, "California Court Strips Lemon Law Protections For Used Cars Under Warranty," *Carscoops*, November 16, 2024, https://www.carscoops.com/2024/11/under-warranty-used-cars-not-eligible-for-lemon-law-according-to-california-court. *See also,* Ryan Sabalow, "California's lemon law is changing and car buyers have fewer protections in the new year," *Cal Matters*, December 19, 2024, https://calmatters.org/politics/2024/12/california-lemon-law-warranty-claims-consumer-rights; Ryan Sabalow, "Newsom wants a do-over on the lemon car law he just signed. Will it hurt buyers?" *Cal Matters*, October 3, 2024, https://calmatters.org/politics/2024/10/lemon-law-consumer-protections-newsom/; Ryan Sabalow, "Critics say lawmakers watered down California's lemon car law after secret lobbyist negotiations," *Cal Matters*, September 23, 2024, https://calmatters.org/politics/capitol/2024/09/lemon-law-california-consumer-rights

[75] Ala. Code § 8-20A-3.

[76] Ariz. Rev. Stat § 44-1265.

[77] Colo. Rev. Stat. § 42-10-106.

[78] 815 ILCS 380/4.

[79] K.S.A. § 50-645.

[80] KY Rev. Stat. § 367.842.

[81] LA Rev. Stat. § 51:1944.

[82] MS Code § 63-17-163.

[83] MO Rev. Stat. § 407.575.

[84] NM Stat. § 57-16A-6.

[85] NC Gen. Stat. § 20-351.7.

[86] ND Cent. Code § 51-07-18.

[87] OR Rev. Stat. § 646A.408.

[88] 73 Pa. Stat. § 1959.

[89] SC Code § 56-28-60.

[90] SD Cod. Laws § 32-6D-6.

[91] TN Code § 55-24-106.

[92] UT Code § 13-20-7.

[93] WY Stat. § 40-17-101.

[94] Liam E. Felsen, "Lemon Law Update: What Manufacturers Need to Know," *Chief Executive*, April 12, 2024, https://chiefexecutive.net/lemon-law-update-what-manufacturers-need-to-know

[95] Center for Auto Safety, "Magnuson-Moss Overview," https://www.autosafety.org/magnuson-moss-overview (viewed December 21, 2024).

[96] *See*, *e.g.*, Tesla, "Cybertruck: New Vehicle Limited Warranty" (effective April 1, 2025), https://digitalassets.tesla.com/tesla-contents/image/upload/tesla-cybertruck-new-vehicle-limited-warranty-en-us.pdf; Tesla, "Model S, Model X, Model 3, Model Year 2020-2025 Model Y: New Vehicle Limited Warranty" (effective April 1, 2025), https://digitalassets.tesla.com/tesla-contents/image/upload/tesla-new-vehicle-limited-warranty-en-us.pdf; Rivian, "R1T + R1S New Vehicle Limited Warranty Guide" (effective June 28, 2024), https://assets.ctfassets.net/2md5qhoeajym/4QCZtanQpDG0oFPAhaskR0/28dc1a917d946b819271a2e16e779404/r1t_r1s-new-vehicle-limited-warranty-guide-us-en-us-20240628.pdf; Lucid, "New Vehicle Limited Warranty: Norh America" (effective April 16, 2024), https://lucidmotors.com/media/document/New_Vehicle_Limited_Warranty_enUS_2024.15.1.pdf

[97] *See*, *e.g.*, National Consumer Law Center, "Consumer Warranty Law," https://library.nclc.org/book/consumer-warranty-law/1654-required-statement-estimated-gas-mileage (viewed April 10, 2024).

[98] Mike Curley, "GM, LG Get Go-Ahead On $150M EV Battery Settlement," *Law360*, September 27, 2024, https://www.law360.com/articles/1883356/gm-lg-get-go-ahead-on-150m-ev-battery-settlement; Mike Curley, "GM, LG Ink $150M Deal To End Chevy Bolt Battery Defect Suit," *Law360*, May 16, 2024, https://www.law360.com/articles/1838057/gm-lg-ink-150m-deal-to-end-chevy-bolt-battery-defect-suit; *In re Chevrolet Bolt EV Battery Litig*., 633 F. Supp. 3d 921 (2022).

[99] These include cases against Audi and Volkswagen, Jaguar and Porsche. *See* docket for *Kukrika v. Porsche Cars N.A., Inc.*, Case No. 1:24-cv-05492-ELR (N.D. Ga.) (viewed May 2, 2025) (original complaint, November 29, 2024); Kelcey Caulder, "Porsche Seeks Toss Of Taycan EV Defect Suit," *Law360*, April 8, 2025, https://www.law360.com/classaction/articles/2322591; *Joyce v. Jaguar Land Rover North America*, 2025 WL 756410 (opinion and order, March 7, 2025); Jonathan Capriel, "Jaguar Can't Shirk Warranty Claims In EV Battery Fire Suit," *Law360*, March 3, 2025, https://www.law360.com/articles/2305138/jaguar-can-t-shirk-warranty-claims-in-ev-battery-fire-suit; *Joyce v. Jaguar Land Rover North America*, Case. No. 23-cv-04281 (D.N.J.) (opinion and order, March 3, 2025); docket for *Kelly v. Volkswagen Group of America, Inc.*, Case No. 1:25-cv-00071-ELR (N.D. Ga) (viewed May 2, 2025) (original complaint, January 7, 2025); Jonathan Capriel, "VW, Audi Say Recall Fixes Nullify EV Fire-Risk Lawsuit," *Law360*, May 1, 2025, https://www.law360.com/classaction/articles/2332723/vw-audi-say-recall-fixes-nullify-ev-fire-risk-lawsuit; Linda Chiem, "Audi Electric SUVs Are 'Ticking Time Bombs,' Suit Claims," *Law360*, January 8, 2025, https://www.law360.com/classaction/articles/2281449/audi-electric-suvs-are-ticking-time-bombs-suit-claims; Kelcey Caulder, "Porsche Taycan's EV Batteries Are Defective, Suit Says," *Law360*, December 2, 2024, https://www.law360.com/articles/2267898

[100] Docket for *Salas v. Ford Motor Co.,* Case No. 2:25-cv-01701 (C.D. Cal.) (viewed May 2, 2025) (original complaint, February 27, 2025); Lauren Berg, "Ford's Electric Mustang Can Trap Occupants, Drivers Say," *Law360*, February 27, 2025, https://www.law360.com/classaction/articles/2304085/ford-s-electric-mustang-can-trap-occupants-drivers-say

[101] Jonathan Stempel, "Tesla speeds up odometers to avoid warranty repairs, US lawsuit claims," *Reuters*, April 17, 2025, https://www.reuters.com/business/autos-transportation/tesla-speeds-up-odometers-avoid-warranty-repairs-us-lawsuit-claims-2025-04-17

[102] 15 U.S.C. § 2310. The law discusses when a civil action can be commenced and additional class action specifics. While Congress' intent is clear, the U.S. Supreme Court has not always properly interpreted congressional language or intent. *See* William Funk et al., *The Truth about Torts: Regulatory Preemption at the National Highway Traffic Safety Administration*, Center for Progressive Reform (July 2008), http://progressivereform.net/articles/NHTSA_Preemption_804.pdf

[103] 16 C.F.R. § 703 ("Decisions of the Mechanism shall not be legally binding on any person.")

[104] U.S. Federal Trade Commission, "Final Action Concerning Review of Interpretations of Magnuson-Moss Warranty Act; Rule Governing Disclosure of Written Consumer Product Warranty Terms and Conditions; Rule Governing Pre-

Sale Availability of Written Warranty Terms; Rule Governing Informal Dispute Settlement Procedures; and Guides for the Advertising of Warranties and Guarantees," 80 FR 42710, July 20, 2015, https://www.federalregister.gov/documents/2015/07/20/2015-14065/final-action-concerning-review-of-interpretations-of-magnuson-moss-warranty-act-rule-governing#citation-107-p42718

[105] U.S. Consumer Financial Protection Bureau, "What is mandatory binding arbitration in an auto purchase agreement?" September 24, 2024, https://www.consumerfinance.gov/ask-cfpb/what-is-mandatory-binding-arbitration-in-an-auto-purchase-agreement-en-739

[106] *See*, *e.g.*, *Krol v. FCA US*, 273 So. 3d 198 (2019); *Krusch v. TAMKO Bldg. Prods.*, 34 F. Supp. 3d 584 (2014); *Davis v. Southern Energy Homes, Inc*, 305 F.3d 1268 (2002); *Walton v. Rose Mobile Homes LLC*, 298 F.3d 470 (2002).

[107] *See*, *e.g.*, *Ballesteros v. Ford Motor Co.*, 2025 Cal. App. LEXIS 193; *Davis v. Nissan North America, Inc.*, 100 Cal.App.5th 825 (2024); *Yeh v. Superior Court*, 95 Cal.App.5th 264 (2023); *Kielar v. Superior Court*, 94 Cal.App.5th 614 (2023); *Montemayor v. Ford Motor Co.*, 92 Cal.App.5th 959 (2023); *Ford Motor Warranty Cases*, 89 Cal.App.5th 1324 (2023); *Garibay v. Mercedes-Benz United States*, 2023 Cal. Super. LEXIS 67331; *Ngo v. BMW of North America, LLC*, 23 F.4th 942 (2022); *Nissan North America, Inc. v. Scott*, 246 So. 3d 90 (2017).

[108] Dockets for *In Re: Ford Warranty Cases*, Case No. S279969 (Cal.) and *Lanier v. Ford Motor Company*, Case No. S280048 (Cal.) (viewed May 2, 2025); Joyce E. Cutler, "Ford Fight Over Arbitration Agreements Gets California Court Nod," *Bloomberg Law*, July 19, 2023, https://www.bloomberglaw.com/bloomberglawnews/litigation/X2846BAS000000

[109] *Ballesteros v. Ford Motor Co.*, 109 Cal.App.5th 1196 (2025); Eric Freedman, "Appeals court: Ford, store can't force customers into arbitration," *Automotive News*, October 21, 2024, https://www.autonews.com/regulation-safety/calif-court-rules-against-ford-dealership-lemon-law-case

[110] *See* Letter from U.S. Senator Richard Blumenthal et al. to Tesla C.E.O. Elon Musk regarding the company's use of forced arbitration clauses in consumer contracts, May 8, 2023, https://www.blumenthal.senate.gov/imo/media/doc/05082023teslaforcedarbitrationletter.pdf; Jack Ewing, "Tesla's Direct Sales Model Helps It Thwart Customer Lawsuits," *New York Times*, December 19, 2022, https://www.nytimes.com/2022/12/19/business/tesla-class-action-lawsuit-arbitration.html

[111] Boone Ashworth, "You Can Buy a Car on Amazon Now," *Wired*, December 10, 2024, https://www.wired.com/story/buy-a-car-on-amazon-hyundai; Andrew J. Hawkins, "Amazon's online car 'dealership' with Hyundai is now live," *The Verge*, December 10, 2024, https://www.theverge.com/2024/12/10/24317821/amazon-autos-hyundai-online-car-shopping

[112] *See*, *e.g.*, Tesla, "Cybertruck: New Vehicle Limited Warranty" (effective April 1, 2025), https://digitalassets.tesla.com/tesla-contents/image/upload/tesla-cybertruck-new-vehicle-limited-warranty-en-us.pdf; Tesla, "Model S, Model X, Model 3, Model Year 2020-2025 Model Y: New Vehicle Limited Warranty" (effective April 1, 2025), https://digitalassets.tesla.com/tesla-contents/image/upload/tesla-new-vehicle-limited-warranty-en-us.pdf; Lucid, "Order Terms and Conditions" (effective November 4, 2024), https://lucidowners.com/attachments/gd77306-30981-us-order-confirmation-document-pdf.24357; Rivian, "Rivian Motor Vehicle Purchase Agreement" (effective August 2024) (on file with CJ&D); Rivian, "R1T + R1S New Vehicle Limited Warranty Guide" (effective June 28, 2024), https://assets.ctfassets.net/2md5qhoeajym/4QCZtanQpDG0oFPAhaskR0/28dc1a917d946b819271a2e16e779404/r1t_r1s-new-vehicle-limited-warranty-guide-us-en-us-20240628.pdf; Tesla, "Motor Vehicle Agreement" (effective June 4, 2024), https://www.tesla.com/configurator/api/v3/terms?locale=en_US&model=m3&saleType=Sale; Lucid, "New Vehicle Limited Warranty: North America" (effective April 16, 2024), https://lucidmotors.com/media/document/New_Vehicle_Limited_Warranty_enUS_2024.15.1.pdf; Gustavo Henrique Ruffo, "Rivian and Lucid Following in Tesla's Footsteps Regarding Arbitration Provisions," *Auto Evolution*, June 6, 2023, https://www.autoevolution.com/news/rivian-and-lucid-are-following-tesla-s-steps-regarding-arbitration-provisions-216110.html

[113] In March 2023, Joshua Santiago brought a class action suit against Tesla, alleging, among other things, that the company hid a defect that can cause its cars to automatically brake when there's no danger of collision. Joshua had "purchased a 2020 Tesla Model 3 from a third-party seller of Tesla vehicles in Illinois." A judge allowed his claim alleging violation of the Illinois Consumer Fraud and Deceptive Business Practices Act to go forward, finding in

November 2024 that "the lawsuit 'successfully connects the dots' between Tesla's alleged omission of safety information on its website and buyers' reliance on the website to make purchase decisions." As of publication, the case was still pending. Docket for *Santiago v. Tesla, Inc.*, Case No. 1:23-cv-02891 (N.D. Ill.) (viewed May 2, 2025) (original complaint, March 14, 2023); Jonathan Capriel, "Judge Trims Suit Over Tesla Collision Alert Defect," *Law360*, November 22, 2024, https://www.law360.com/articles/2264733/judge-trims-suit-over-tesla-collision-alert-defect; Mike Scarcella, "Tesla must face part of 'phantom braking' lawsuit, US judge rules," *Reuters*, November 22, 2024, https://www.reuters.com/legal/litigation/tesla-must-face-part-phantom-braking-lawsuit-us-judge-rules-2024-11-22; *Santiago v. Tesla, Inc.*, 2024 WL 4871350.

[114] In July 2023, Tesla EV owners and lessors – who were pursuing separate antitrust class actions against the car company for allegedly monopolizing markets for repairs and parts – filed a consolidated complaint against the manufacturer. All of them had paid, outside of warranty, for both Tesla repair services and Tesla-compatible parts between March 2019 and July 17, 2023. In September 2023, Tesla won its motion to compel arbitration against three of the plaintiffs, pointing to arbitration agreements they entered when purchasing or leasing their vehicles. The case continued with the remaining plaintiffs, who alleged that "Tesla coerced them into paying high prices and suffering long waits to have their vehicles fixed, under fear of losing warranty coverage" in violation of the Sherman Act, California's Cartwright Act and California's Unfair Competition Law. In June 2023, the court ruled that they could pursue their class action, finding "evidence of a repairs monopoly in Tesla's alleged refusal to open enough authorized service centers, and its designing vehicles to require diagnostic and software updates that only the company could provide," plus "[e]vidence of a parts monopoly" that "included restricting original equipment manufacturers from selling 'to anyone other than Tesla,' and Tesla's selling parts to consumers only on a limited basis, the judge said." As of publication, the case had yet to be resolved. Docket for *Lambrix v. Tesla, Inc.*, Case No. 3:23-CV-01145 (N.D. Cal.) (viewed May 2, 2025) (original complaint, March 14, 2023); Jonathan Stempel, "Tesla must face owners' lawsuit claiming it monopolizes vehicle repairs and parts," *Reuters*, June 18, 2024, https://www.reuters.com/legal/tesla-must-face-owners-lawsuit-claiming-it-monopolizes-vehicle-repairs-parts-2024-06-18; *Lambrix v. Tesla, Inc.*, 737 F.Supp.3d 822 (2024); Defendant Tesla, Inc.'s Motion to (1) Compel Arbitration and Stay Proceedings or (2) Dismiss, 2023 WL 7323910.

[115] *See*, *e.g.*, *Ligeri v. Tesla Motors, Inc.*, 2025 Conn. Super. LEXIS 569; *Kohan v. Lucid Grp. USA, Inc.*, 2024 U.S. Dist. LEXIS 183893: *Toda v. Tesla Motors, Inc.*, 2024 Cal. Super. LEXIS 50482; *Corea v. Tesla Motors, Inc.*, 2024 Cal. Super. LEXIS 54302; *Nejati v. Tesla Motors, Inc.*, 2024 Cal. Super. LEXIS 54471; *Manious v. Tesla, Inc.*, 2023 Cal. Super. LEXIS 68953; *Colonel v. Tesla*, 2023 U.S. Dist. LEXIS 122014; *Sarikhani v. Tesla, Inc.*, 320 So. 3d 746 (2021); *Kamineni v. Tesla, Inc.*, 2020 U.S. Dist. LEXIS 1329.

[116] The 16 states are Alabama, Arkansas, Connecticut (tribal land loophole regarding sales), Iowa, Kansas, Louisiana, Montana, Nebraska, New Mexico (tribal land loophole regarding sales), North Dakota, Oklahoma, South Carolina, South Dakota, Texas, West Virginia and Wisconsin. Electrification Coalition, "Freedom to Buy Vehicles in Georgia," https://electrificationcoalition.org/work/state-ev-policy/freedom-to-buy-georgia (viewed March 26, 2025); Electrification Coalition, "Frequently Asked Questions," https://electrificationcoalition.org/work/state-ev-policy/freedom-to-buy/frequently-asked-questions (viewed March 26, 2025); Marie J. French, "Dems are icing out Tesla lobbyists over Elon Musk's Trump ties," *Politico*, February 27, 2025, https://www.politico.com/news/2025/02/27/elon-musk-tesla-ev-sales-00206194; Jerry Cornfield, "Tesla is the only EV maker that can sell directly to consumers in WA. Lawmakers might change that," *Washington State Standard*, February 4, 2025, https://washingtonstatestandard.com/2025/02/04/tesla-is-the-only-ev-maker-that-can-sell-directly-to-consumers-in-wa-lawmakers-might-change-that; Lou Cataldo, "Why Dealers Are Opposed To Direct-To-Consumer Sales," *CarBuzz*, January 2, 2025, https://carbuzz.com/dealers-opposed-direct-to-consumer-sales; Joseph Pudlewski, "Why can't manufacturers sell directly to consumers?" *Autoblog*, December 17, 2024, https://www.autoblog.com/news/why-cant-manufacturers-sell-directly-to-consumers; Zachary Visconti, "Tesla, Rivian still face complicated direct sales laws across U.S. states," *Teslarati*, November 24, 2024, https://www.teslarati.com/us-states-direct-vehicle-sales-banned; Electrification Coalition and Atlas Public Policy, *Dealership Experiences and Outlooks on Selling, Leasing and Servicing EVs* (September 2024), https://electrificationcoalition.org/wp-content/uploads/2024/10/Dealership-Experiences-and-Outlooks-on-Selling-Leasing-and-Servicing-EVs.pdf; Connor Giffin and Olivia Evans, "Tesla may start selling EVs in Louisville soon – in spite of state law. What we know," *Louisville Courier Journal*, August 14, 2024, https://www.courier-journal.com/story/money/companies/2024/08/12/tesla-may-soon-start-selling-evs-in-louisville-despite-kentucky-

law/74766001007; Lisa Stiffler, "Rivian, Lucid and other EVs stuck in park by failed effort to change car sales laws in Washington," *GeekWire*, February 27, 2024, https://www.geekwire.com/2024/rivian-lucid-and-other-evs-stuck-in-park-by-failed-effort-to-change-car-sales-laws-in-washington; National Conference of State Legislatures, "State Laws on Direct-Sales" (August 2021), https://www.wispolitics.com/wp-content/uploads/2021/08/State-Laws-on-Direct-Sales.pdf

[117] The ten states are Georgia, Indiana, Kentucky (allowed through special sales license in August 2024), Nevada, New Jersey, New York, North Carolina, Ohio, Pennsylvania and Washington. (*See* sources in above note.)

[118] Alex Weidner, "Bill would end Tesla 'monopoly' on direct-to-consumer EV sales, says Fahy," *WRGB* (Albany, NY), March 27, 2025, https://cbs6albany.com/news/local/bill-would-end-tesla-monopoly-on-direct-to-consumer-ev-sales-says-pat-fahy-elon-musk-gabriella-romero-new-york-albany-legislature-zero-emissions-trump; Jerry Cornfield, "Tesla is the only EV maker that can sell directly to consumers in WA. Lawmakers might change that," *Washington State Standard*, February 4, 2025, https://washingtonstatestandard.com/2025/02/04/tesla-is-the-only-ev-maker-that-can-sell-directly-to-consumers-in-wa-lawmakers-might-change-that

[119] *See, e.g.,* the Uniform Commercial Code, UCC § 2-719(3), "Contractual Modification or Limitation of Remedy," which states, "Consequential damages may be limited or excluded unless the limitation or exclusion is unconscionable. Limitation of consequential damages for injury to the person in the case of consumer goods is prima facie unconscionable, but limitation of damages where the loss is commercial is not." Section 18 of the most recent Restatement of the Law Third, Torts: Products Liability (adopted by the American Law Institute in 1998 and still current for this issue) says, "A disclaimer or limitation of remedies that purports to limit or eliminate the liability of a seller or other distributor of new products for harm caused by product defect is not effective to bar or reduce otherwise valid product liability claims for harm to persons."

[120] Jef Feeley, "Tesla Sued for Airbag Malfunction in Model 3 Highway Crash," *Bloomberg*, June 26, 2020, https://www.bloomberg.com/news/articles/2020-06-26/tesla-sued-for-airbag-malfunction-in-model-3-highway-crash

[121] Cohen Milstein, "Edwards v. Tesla, Inc.," https://www.cohenmilstein.com/case-study/edwards-v-tesla-inc (viewed April 11, 2025).

[122] Hailey Konnath, "Tesla Reaches Settlement With Widow In Wrongful Death Suit," *Law360*, April 22, 2025, https://www.law360.com/articles/2328373; Mike Scarcella, "Tesla settles wrongful death lawsuit claiming sudden acceleration in Ohio crash," *Reuters*, April 21, 2025, https://www.reuters.com/sustainability/tesla-settles-wrongful-death-lawsuit-claiming-sudden-acceleration-ohio-crash-2025-04-21; *Leach v. Tesla, Inc.*, Case No. 23-cv-03378 (N.D. Cal.) (Order Denying Defendant's Motion to Transfer Venue, February 6, 2024).

[123] *See*, *e.g.*, David Hernandez, "Lawsuit blaming Tesla autopilot hype for deadly East Bay crash takes key step," *San Francisco Chronicle*, March 27, 2025, https://www.sfchronicle.com/bayarea/article/tesla-autopilot-crash-lawsuit-20244497.php; Mike Scarcella, "Tesla wins ruling to limit damages in US lawsuit over Autopilot crash," *Reuters*, February 26, 2025, https://www.reuters.com/legal/litigation/tesla-wins-ruling-limit-damages-us-lawsuit-over-autopilot-crash-2025-02-26; Hailey Konnath, "Tesla's Autopilot Caused Calif. Man's Fatal Crash, Family Says," *Law360*, July 22, 2024, https://www.law360.co.uk/articles/1860383/tesla-s-autopilot-caused-calif-man-s-fatal-crash-family-says; Clare Duffy, "Tesla settles with Apple engineer's family who said Autopilot caused his fatal crash," *CNN*, April 8, 2024, https://www.cnn.com/2024/04/08/tech/tesla-trial-wrongful-death-walter-huang/index.html; Ethan Baron, "'Autopilot' drove Tesla into barrier causing 'catastrophic injuries,' lawsuit claims, echoing fatal Mountain View crash," *Mercury News*, October 17, 2022, https://www.mercurynews.com/2022/10/14/autopilot-drove-tesla-into-barrier-causing-catastrophic-injuries-lawsuit-claims-echoing-fatal-mountain-view-crash; Jim Sams, "Lawsuit Alleges Tesla Aware That Its Vehicles Crash Into Emergency Vehicles," *Claims Journal*, February 11, 2022, https://www.claimsjournal.com/news/national/2022/02/11/308631.htm; David A. Wood, "Tesla Lawsuit Filed Over Death of Naibel Benavides Leon," *CarComplaints.com*, May 30, 2021, https://www.carcomplaints.com/news/2021/tesla-lawsuit-death-naibel-benavides-leon.shtml

[124] Forced arbitration clauses contained in direct-to-consumer purchase and warranty documents appear to be specific to order, sale and purchase only. *See*, *e.g.*, Tesla, "Cybertruck: New Vehicle Limited Warranty" (effective April 1, 2025), https://digitalassets.tesla.com/tesla-contents/image/upload/tesla-cybertruck-new-vehicle-limited-warranty-en-us.pdf; Tesla, "Model S, Model X, Model 3, Model Year 2020-2025 Model Y: New Vehicle Limited

Warranty" (effective April 1, 2025), https://digitalassets.tesla.com/tesla-contents/image/upload/tesla-new-vehicle-limited-warranty-en-us.pdf; Lucid, "Order Terms and Conditions" (effective November 4, 2024), https://lucidowners.com/attachments/gd77306-30981-us-order-confirmation-document-pdf.24357; Rivian, "Rivian Motor Vehicle Purchase Agreement" (effective August 2024) (on file with CJ&D); Rivian, "R1T + R1S New Vehicle Limited Warranty Guide" (effective June 28, 2024), https://assets.ctfassets.net/2md5qhoeajym/4QCZtanQpDG0oFPAhaskR0/28dc1a917d946b819271a2e16e779404/r1t_r1s-new-vehicle-limited-warranty-guide-us-en-us-20240628.pdf; Tesla, "Motor Vehicle Agreement" (effective June 4, 2024), https://www.tesla.com/configurator/api/v3/terms?locale=en_US&model=m3&saleType=Sale; Lucid, "New Vehicle Limited Warranty: North America" (effective April 16, 2024), https://lucidmotors.com/media/document/New_Vehicle_Limited_Warranty_enUS_2024.15.1.pdf

[125] *See*, *e.g.*, Mike Scarcella, "Tesla wins ruling to limit damages in US lawsuit over Autopilot crash," *Reuters*, February 26, 2025, https://www.reuters.com/legal/litigation/tesla-wins-ruling-limit-damages-us-lawsuit-over-autopilot-crash-2025-02-26; Ryan Boysen, "Tesla Defeats Sanctions Bid Over Atty's Mediation Appearance," *Law360*, November 6, 2024, https://www.law360.com/articles/2257776/tesla-defeats-sanctions-bid-over-atty-s-mediation-appearance

[126] Docket for *Jackson v. Tesla, Inc.*, Case No. 5:22-cv-04380 (N.D. Cal.) (viewed May 2, 2025) (Plaintiffs' Opposition to Defendant Tesla, Inc.'s Motion to Disqualify Judge P. Casey Pitts, January 24, 2025) (Plaintiffs' Opposition to Tesla, Inc.'s Motion to Transfer, January 24, 2025) (complaint, July 28, 2022); James Mills, "Tesla Says Judge DQ Bid In Crash Suit Arrived On Time," *Law360*, February 3, 2025, https://www.law360.com/trials/articles/2292364; Mike Curley, "Tesla Too Late To DQ Judge In Crash Suit, Court Told," *Law360*, January 27, 2025, https://www.law360.com/personal-injury-medical-malpractice/articles/2288894/tesla-too-late-to-dq-judge-in-crash-suit-court-told

[127] *Geier v. American Honda, Inc.*, 529 U.S. 861 (2000).

[128] *See* William Funk et al., *The Truth about Torts: Regulatory Preemption at the National Highway Traffic Safety Administration*, Center for Progressive Reform (July 2008), http://progressivereform.net/articles/NHTSA_Preemption_804.pdf

[129] Environmental Defense Fund, "2024 was another record year for electric truck deployments, proving that the shift to zero-emission is not slowing down," November 19, 2024, https://blogs.edf.org/energyexchange/2024/11/19/2024-was-another-record-year-for-electric-truck-deployments-proving-that-the-shift-to-zero-emission-is-not-slowing-down

[130] *See*, *e.g.*, Grand View Research, *Heavy-duty Electric Trucks Market Size, Share & Trends Analysis Report By Vehicle Class, By Propulsion Type, By Application, By Region, And Segment Forecasts, 2024–2030*, July 18, 2024, https://www.grandviewresearch.com/industry-analysis/heavy-duty-electric-trucks-market-report; ACT Research, "Half of all Commercial Vehicles will be Zero Emissions by 2040," September 12, 2023, https://www.actresearch.net/resources/blog/charging-forward-blog; S&P Global Mobility, "Fuel for Thought: The commercial vehicle fleet accelerates toward ZEV adoption," July 26, 2023, https://www.spglobal.com/mobility/en/research-analysis/fuel-for-thought-the-commercial-vehicle-fleet-accelerates.html However, *see also,* David Ferris, Mike Lee , "Electric trucks face a rough road with Trump," *E&E News by Politico*, April 14, 2025, https://www.eenews.net/articles/electric-trucks-face-a-rough-road-with-trump/

[131] American Trucking Associations, "A heavy dose of reality for electric-truck mandates," April 19, 2023, https://www.trucking.org/news-insights/heavy-dose-reality-electric-truck-mandates; Bianca Giacobone, "Electrifying trucking will mean sacrificing critical weight for heavy batteries, eating into already-slim margins," *Business Insider*, February 2, 2023, https://www.businessinsider.com/electric-trucks-longhaul-batteries-tesla-heavy-cargo-weight-problem-2023-2

[132] *See* DHL Freight, "Charging Times for Electric Trucks: The Goal is Less Than 30 Minutes," *Freight Connections*, November 26, 2024, https://dhl-freight-connections.com/en/solutions/charging-times-for-electric-trucks-the-goal-is-less-than-30-minutes

[133] Cecilio Padilla, "Tesla semi-truck fire that shut down I-80 took 50,000 gallons of water to put out, NTSB says," *CBS Sacramento*, September 13, 2024, https://www.cbsnews.com/sacramento/news/tesla-semi-truck-fire-ntsb-report-50k-gallons-of-water; Tyson Fisher, "DOT meeting highlights numerous safety issues surrounding electric vehicle

batteries," *Land Line*, August 30, 2024, https://landline.media/dot-meeting-highlights-numerous-safety-issues-surrounding-electric-vehicle-batteries; Lauren Sforza, "NTSB investigating Tesla crash in California," *The Hill*, August 22, 2024, https://thehill.com/policy/technology/4841489-ntsb-tesla-crash-california. The incident prompted an NTSB investigation, the agency's first involving an electric truck-tractor, which is ongoing and likely to take one or two years. Noël Fletcher, "Tesla Semi Crash, Fire Mark NTSB's First EV Truck Case," *Transport Topics*, December 30, 2024, https://www.ttnews.com/articles/tesla-semi-crash-ntsb

[134] Cecilio Padilla, "Tesla semi-truck fire that shut down I-80 took 50,000 gallons of water to put out, NTSB says," *CBS Sacramento*, September 13, 2024, https://www.cbsnews.com/sacramento/news/tesla-semi-truck-fire-ntsb-report-50k-gallons-of-water

[135] Ibid.

[136] Ibid.

[137] Center for Justice & Democracy, *Big Trucks – An Avoidable Public Safety Crisis* (November 2022), https://centerjd.org/content/study-big-trucks-avoidable-public-safety-crisis

[138] For more detailed discussions of tort restrictions in truck crashes, *see* Center for Justice & Democracy studies *Moving Hazards: Transportation Systems and Environmental Disasters* (May 2024), https://centerjd.org/content/study-moving-hazards-transportation-systems-and-environmental-disasters, and *Big Trucks – An Avoidable Public Safety Crisis* (November 2022), https://centerjd.org/content/study-big-trucks-avoidable-public-safety-crisis

[139] Ibid.

[140] *See, e.g.,* Adam Bennett and Isabella Basco, "'Be more clear about protecting the victims'| Commercial vehicle collision lawsuit reform bill gets public hearing," *KVUE* (Austin, TX), April 10, 2025, https://www.kvue.com/article/news/politics/texas-legislature/commercial-vehicle-collision-lawsuit-reform-bill-sb-39/269-a5dbb58b-662a-4ebc-83cf-b1e684153f7d; Sam Gringlas, "Kemp's bill to curb civil lawsuits is headed to his desk," *WABE* (Atlanta, GA), March 21, 2025, https://www.wabe.org/kemps-bill-to-curb-civil-lawsuits-in-georgia-is-facing-a-key-vote-heres-what-it-does; Keith Goble, "Tort reform efforts for truck drivers considered in multiple states," *Land Line*, January 29, 2025, https://landline.media/tort-reform-efforts-for-truck-drivers-considered-in-multiple-states

[141] *See* Richard L. Jolly, Valerie P. Hans and Robert S. Peck, *The Civil Jury: Reviving an American Institution.* U.C. Berkeley School of Law, Civil Justice Research Initiative (September 2021), https://civiljusticeinitiative.org/wp-content/uploads/2021/09/CJRI_The-Civil-Jury-Reviving-an-American-Institution.pdf

[142] 49 FR 387. *See also*, Kea Wilson, "Reforming a 44-Year-Old Insurance Law Could Prevent Thousands of Deadly Truck Crashes a Year," *Streetsblog USA*, January 30, 2024, https://usa.streetsblog.org/2024/01/30/reforming-a-44-year-old-insurance-law-could-prevent-thousands-of-deadly-truck-crashes-a-year; Office of U.S. Congressman Jesús García, "Reps. García, Johnson Renew Fight for Stronger Truck Insurance Requirements," December 22, 2023, https://chuygarcia.house.gov/media/press-releases/reps-garcia-johnson-renew-fight-for-stronger-truck-insurance-requirements. In 2024, New Jersey passed a law to address this inadequacy, raising the minimum amount of liability coverage for commercial big rigs that travel in or through the state to $1.5 million, twice the federal minimum. Matt Cole, "New Jersey doubling liability insurance minimums," *Commercial Carrier Journal*, May 10, 2024, https://www.ccjdigital.com/business/article/15670539/new-jersey-doubling-liability-insurance-minimums. As of publication, Nevada is considering a bill to increase coverage requirements to $1.5 million by 2030. Haajrah Gilani, "Nevada Senate approves bill to double trucking liability insurance coverage by 2030," *Las Vegas Sun*, April 23, 2025, https://lasvegassun.com/news/2025/apr/23/nevada-senate-approves-bill-to-double-trucking-lia

[143] 49 FR 387.

[144] Federal Motor Carrier Safety Administration, *Examining the Appropriateness of the Current Financial Responsibility and Security Requirements for Motor Carriers, Brokers, and Freight Forwarders – Report to Congress* (May 2022), https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/2022-05/Financial%20Responsibility%20Report%20to%20Congress-Final%20May%202022.pdf

[145] Ibid.

[146] Electric School Bus Initiative, "The State of Electric School Bus Adoption in the US," November 18, 2024, https://electricschoolbusinitiative.org/state-electric-school-bus-adoption-us; Mark Lieberman, "Electric Buses Hit Some Road Bumps, But They're Still Catching On," *Education Week*, February 26, 2024, https://www.edweek.org/leadership/electric-buses-hit-some-road-bumps-but-theyre-still-catching-on/2024/02

[147] *See, e.g.,* "California expands its electric school bus fleet as federal freeze paused efforts elsewhere," *Associated Press*, April 27, 2025, https://www.mymotherlode.com/news/local/3810349/california-expands-its-electric-school-bus-fleet-as-federal-freeze-paused-efforts-elsewhere-2.html; Corey James, "New York schools face multiple challenges in electric bus transition," *Spectrum News*, April 24, 2025, https://spectrumlocalnews.com/nys/central-ny/news/2025/04/24/ny-electric-school-bus-mandate; Zahra Hirji, "Trump Throws the Electric School Bus Transition Into Chaos," *Bloomberg*, April 16, 2025, https://www.bloomberg.com/news/features/2025-04-16/trump-throws-the-electric-school-bus-transition-into-chaos

[148] Shanxi Omoniyi, "Rush to deploy electric school buses raises worries over maintenance, safety issues," *The Lion*, June 14, 2024, https://readlion.com/rush-to-deploy-electric-school-buses-raises-worries-over-maintenance-safety-issues. *See also*, Rick Karlin, "Breakdowns, Recalls Fuel Skepticism of Electric School Buses," *Albany Times Union*, March 1, 2024, https://www.govtech.com/education/k-12/breakdowns-recalls-fuel-skepticism-of-electric-school-buses ("Traditional diesel buses, for instance, have a failure rate of 1 or 2 percent, meaning that out of a fleet of 100 buses, one or two would be down for repairs on a given day, said David Christopher, executive director of the [New York] Association for Pupil Transportation, which represents school bus directors. For electric buses, the failure rate is about 20 percent, meaning 20 of 100 e-buses are down on any given day, due to problems with the buses or with their charging devices.")

[149] Emily Duggan, "Electric buses continue to cause problems for Maine schools," *Kennebec Journal*, December 3, 2024, https://www.centralmaine.com/2024/12/02/electric-buses-continue-to-have-problems-across-the-state; Shanxi Omoniyi, "Rush to deploy electric school buses raises worries over maintenance, safety issues," *The Lion*, June 14, 2024, https://readlion.com/rush-to-deploy-electric-school-buses-raises-worries-over-maintenance-safety-issues; Owen Kingsley, "'It's been frustrating:' Problems persist for Winthrop's electric school buses," *GME* (Winthrop, ME), May 20, 2024, https://wgme.com/news/crisis-in-the-classroom/its-been-frustrating-problems-persist-for-winthrops-electric-school-buses

[150] Owen Kingsley, "'It's been frustrating:' Problems persist for Winthrop's electric school buses," *GME* (Winthrop, ME), May 20, 2024, https://wgme.com/news/crisis-in-the-classroom/its-been-frustrating-problems-persist-for-winthrops-electric-school-buses

[151] Shanxi Omoniyi, "Rush to deploy electric school buses raises worries over maintenance, safety issues," *The Lion*, June 14, 2024, https://readlion.com/rush-to-deploy-electric-school-buses-raises-worries-over-maintenance-safety-issues

[152] "Lion Electric Recalls School Buses for Parking Brake Issue," *Brake Report*, June 3, 2024, https://thebrakereport.com/lion-electric-recalls-school-buses-for-parking-brake-issue

[153] Sarah Heinonen, "Electric buses on hold in HWRSD until fire cause known," *The Reminder*, January 29, 2025, https://thereminder.com/local-news/hampden-county/wilbraham/electric-buses-on-hold-in-hwrsd-until-fire-cause-known; Ryan Trowbridge, "Bus garage fire prompts school delays in Wilbraham, Ludlow," *WGGB/*WSHM (Wilbraham, MA), January 21, 2025, https://www.westernmassnews.com/2025/01/21/bus-garage-fire-prompts-school-delays-wilbraham-ludlow

[154] Jordan Pascale, "Metro's First Electric Bus Delivery Delayed Due To Battery Fire Recall; DASH Buses Also Affected," *dcist*, March 10, 2023, https://dcist.com/story/23/03/10/metros-first-electric-bus-delivery-delayed-due-to-battery-fire-recall-dash-buses-also-affected. *See also*, Bailey Wright, "NTSB says electric bus fire in Hamden was caused by battery damage," *WTNH* (Hamden, CT), March 29, 2024, https://www.wtnh.com/news/connecticut/new-haven/ntsb-says-electric-bus-fire-in-hamden-was-caused-by-battery-damage; Nick Pope, "Biden Admin Hands Out $1.7 Billion For Electric Buses Despite Their Propensity To Burst Into Flames," *Daily Caller*, June 26, 2023, https://dailycaller.com/2023/06/26/biden-admin-handout-1-7-billion-electric-buses-vehicles-catch-fire-flames; "Electric Bus Catches on Fire at CT Transit Bus Depot in Hamden: FD," *NBC Connecticut*, July 23, 2022, https://www.nbcconnecticut.com/news/local/electric-bus-catches-on-fire-at-ct-transit-bus-depot-in-hamden-fd/2837679

[155] Brandon Lewis, "FTA issues safety advisory for certain Proterra battery-electric buses," *Mass Transit*, October 17, 2024, https://www.masstransitmag.com/bus/vehicles/hybrid-hydrogen-electric-vehicles/article/55236198/fta-issues-safety-advisory-for-certain-proterra-battery-electric-buses; Ireland Owens, "Biden-Harris admin recalls hundreds of electric buses amid fire concerns," *The Lion*, October 17, 2024, https://readlion.com/biden-harris-admin-recalls-hundreds-of-electric-buses-amid-fire-concerns

[156] Richard Stradling, "Chapel Hill will park its electric buses until it knows why one caught fire," *News & Observer*, December 12, 2024, https://www.newsobserver.com/news/local/counties/orange-county/article296923764.html; "Chapel Hill electric bus catches fire; 10 other buses removed as caution," *WRAL News* (Raleigh, NC), December 10, 2024, https://www.wral.com/news/local/chapel-hill-electric-bus-fire-november-2024

[157] Richard Stradling, "3 months after fire, Chapel Hill brings back electric buses, though not all of them," *News & Observer*, March 3, 2025, https://www.newsobserver.com/news/local/counties/orange-county/article301311774.html

[158] WI Stat § 121.53.

[159] Federal Motor Carrier Safety Administration, "7.7 Minimum Insurance Levels on Passenger Carrier Operations," https://csa.fmcsa.dot.gov/safetyplanner/myfiles/Sections.aspx?ch=24&sec=78 (viewed January 10, 2025); Federal Motor Carrier Safety Administration, *Examining the Appropriateness of the Current Financial Responsibility and Security Requirements for Motor Carriers, Brokers, and Freight Forwarders – Report to Congress* (April 2014), https://www.fmcsa.dot.gov/sites/fmcsa.dot.gov/files/docs/Financial-Responsibility-Requirements-Report-Enclosure-FINAL-April%202014.pdf

[160] Robert H. Shmerling, "The popularity of e-bikes and e-scooters is soaring, but are they safe?" *Harvard Health Publishing Blog*, September 9, 2024, https://www.health.harvard.edu/blog/the-popularity-of-e-bikes-and-e-scooters-is-soaring-but-are-they-safe-202409093069

[161] National Association of City Transportation Officials, *157 Million Trips: Across the U.S. and Canada in 2023* (July 2024), https://nacto.org/wp-content/uploads/2024/08/Shared-micro-in-2023-snapshot_FINAL_July22-2024.pdf

[162] Ibid.

[163] University of California San Francisco, "Electric Scooter and Bike Accidents Are Soaring Across the U.S.," July 23, 2024, https://www.ucsf.edu/news/2024/07/428096/electric-scooter-and-bike-accidents-are-soaring-across-us, discussing Adrian N. Fernandez et al., "Injuries With Electric vs Conventional Scooters and Bicycles," *JAMA Netw. Open*, July 23, 2024, https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2821387

[164] Robert H. Shmerling, "The popularity of e-bikes and e-scooters is soaring, but are they safe?" *Harvard Health Publishing Blog*, September 9, 2024, https://www.health.harvard.edu/blog/the-popularity-of-e-bikes-and-e-scooters-is-soaring-but-are-they-safe-202409093069

[165] *See*, *e.g.*, Adrian N. Fernandez et al., "Injuries With Electric vs Conventional Scooters and Bicycles," *JAMA Netw. Open*, July 23, 2024, https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2821387; Dean Yobbi, "CPSC Commissioner: New e-bike injury data 'really concerning,'" *Bicycle Retailer*, October 17, 2023, https://www.bicycleretailer.com/industry-news/2023/10/17/cpsc-commissioner-new-e-bike-injury-data-really-concerning; National Transportation Safety Board, *Micromobility: Data Challenges Associated with Assessing the Prevalence and Risk of Electric Scooter and Electric Bicycle Fatalities and Injuries*, November 14, 2022, https://www.ntsb.gov/safety/safety-studies/Documents/SRR2201.pdf

[166] *See*, *e.g.*, Stephen Swanson, "E-bike catches fire inside St. Paul apartment building, sending man to hospital," *WCCO News* (St. Paul, MN), October 21, 2024, https://www.cbsnews.com/minnesota/news/st-paul-electric-bike-apartment-fire; Katie Bente, "Jupiter family loses everything: E-bike battery explosion sparks catastrophic fire," *CBS 12* (Jupiter, FL), September 13, 2024, https://cbs12.com/news/local/jupiter-family-loses-everything-e-bike-battery-explosion-sparks-catastrophic-fire-florida-lithium-ion; Raegan Medgie, "1 firefighter hurt when blaze tears through e-bike shop in Richmond Hill for 2nd time this year," *WABC-7* (New York, NY), August 22, 2024, https://abc7ny.com/post/queens-bike-shop-fire-firefighter-injured-richmond-hill-bike-store-blaze/15217056; "Investigators: E-Bike Battery Explosion Behind Fire at Cayuga Inn," *Finger Lakes Daily News*, August 21, 2024, https://www.fingerlakesdailynews.com/local/cayuga/investigators-e-bike-battery-explosion-behind-fire-at-cayuga-inn; Shosh Bedrosian and Mark Prussin, "E-bike lithium-ion battery started Brooklyn fire that injured 4, FDNY says,"

CBS News (New York, NY), June 27, 2024, https://www.cbsnews.com/newyork/news/e-bike-eyed-as-possible-cause-of-midwood-brooklyn-fire-fdny-says; Rebecca White and Thomas Tracy, "E-bike battery blamed in Harlem fire that killed one, required daring FDNY rope rescues," *New York Daily News*, February 24, 2024, https://www.yahoo.com/news/e-bike-battery-blamed-harlem-231900785.html; Kirstyn Brendlen and Lloyd Mitchell "'Ticking time bombs': Crown Heights fire that killed 3 family members caused by e-bike battery," *Brooklyn Paper*, November 13, 2023, https://www.brooklynpaper.com/time-bombs-e-bike-battery-fire-crown-heights

[167] Jim Pauley, "E-bike and e-scooter battery fires are killing people. Here's how to save lives," *CNN*, July 21, 2023, https://www.cnn.com/2023/07/21/opinions/e-bike-e-scooter-battery-fires-pauley/index.html

[168] Sahalie Donaldson, "Why e-bike batteries are becoming the most dangerous object in New York," *City & State*, April 8, 2024, https://www.cityandstateny.com/policy/2024/04/why-e-bike-batteries-are-becoming-most-dangerous-object-new-york/395538

[169] Testimony of Chief Fire Marshal Daniel Flynn, Fire Department of the City of New York before U.S. House Subcommittee on Emergency Management and Technology, Hearing on "Examining Fire Hazards: Lithium-Ion Batteries and Other Threats to Fire Safety," February 15, 2024, https://www.congress.gov/118/meeting/house/116782/witnesses/HHRG-118-HM12-Wstate-FlynnD-20240215.pdf

[170] U.S. Consumer Product Safety Commission, "Electric Bicycles; Advance Notice of Proposed Rulemaking; Request for Comments and Information," 89 FR 18861, March 15, 2024, https://www.federalregister.gov/documents/2024/03/15/2024-05472/electric-bicycles-advance-notice-of-proposed-rulemaking-request-for-comments-and-information

[171] *See*, *e.g.*, Leah Douglas, "Exclusive: US consumer safety agency to stop collecting swaths of data after CDC cuts," *Reuters*, April 16, 2025, https://www.reuters.com/business/healthcare-pharmaceuticals/us-consumer-safety-agency-stop-collecting-swaths-data-after-cdc-cuts-2025-04-16/

[172] *See* Winnie Hu, "Why Deaths From E-Bike Fires Are Declining in New York City," *New York Times*, October 3, 2024, https://www.nytimes.com/2024/10/03/nyregion/e-bike-lithium-battery-fires-safety-nyc.html; John Maa et al., "Electric Bikes Are Emerging as Public Health Hazard," *Bulletin of the American College of Surgeons*, July 17, 2024, https://www.facs.org/for-medical-professionals/news-publications/news-and-articles/bulletin/2024/julyaugust-2024-volume-109-issue-7/electric-bikes-are-emerging-as-public-health-hazard; Robbie Sequeira, "Deadly fires from phone, scooter batteries leave lawmakers playing catch-up on safety," *Stateline*, March 27, 2024, https://stateline.org/2024/03/27/deadly-fires-from-phone-scooter-batteries-leave-lawmakers-playing-catch-up-on-safety; Chris Daniels et al., "E-bike fires threaten neighborhoods, but no national safety standards are in place," *Spotlight on America*, March 14, 2024, https://thenationaldesk.com/news/spotlight-on-america/e-bike-fires-scooters-and-lithium-ion-batteries-threaten-neighborhoods-cpsc-national-safety-standards-san-francisco-seattle-nyc-new-york-city-congress-ritchie-torres-damage-alexander-hoehn-saric-chair-us-consumer-product-safety-commission; Chris Daniels, TK Johnson and Andrea Nejman, "Unregulated e-bike batteries are triggering deadly and destructive fires nationwide," *Spotlight on America*, March 12, 2024, https://thenationaldesk.com/news/spotlight-on-america/unregulated-e-bike-batteries-are-triggering-deadly-destructive-fires-nationwide-lithium-ion-new-york-city-charger-technology-fire-responders-firefighters-san-francisco-public-service-announcement; Testimony of Stephen Kerber, Fire Safety Research Institute before U.S. House Subcommittee on Emergency Management and Technology, Hearing on "Examining Fire Hazards: Lithium-Ion Batteries and Other Threats to Fire Safety," February 15, 2024, https://homeland.house.gov/wp-content/uploads/2024/02/2024-02-15-EMT-HRG-Testimony.pdf

[173] Lime puts it this way: "You, on behalf of yourself, your personal representatives and your heirs, hereby expressly agree to waive and release all Released Parties [*i.e.*, Lime, its subsidiaries and affiliates, plus municipalities, public entities and owners/ground lessees of property that authorize Lime to operate e-scooters] from any and all claims (including those in contract, tort (including negligence), statutory and/or any other grounds), including without limitation claims for or relating to any accident, personal injury, property damage, death or disability that you may suffer as a result of using our services or products, including those caused solely or in part by the negligence or omission of any of the Released Parties. The Waiver and Release includes any claims for injury or illness including, but not limited to, bodily injury, disease, strains, fractures, partial or total paralysis, other ailments that could cause serious disability, mental or physical anguish, or death; these risks and dangers may be caused by the negligence or omission of Lime, the negligence of others, including other pedestrians or motorists, or may arise from the repair,

maintenance or operation of our Services or Products, weather conditions at the time of use, roadway conditions, or other causes, including from any other additional foreseeable or unforeseeable causes." Lime, "User Agreement," June 23, 2023, https://www.li.me/user-agreement [case formatting removed].

[174] Citi Bike, "Liability Waiver, Release, Indemnification, and Voluntary Assumption of Risk (the 'Release')," December 16, 2019, https://assets.citibikenyc.com/liability-waiver.html. There has been at least one reported attempt by injured riders to get around Citi Bike's liability waiver, but so far these seem to have been unsuccessful as all six cases were discontinued. *See* Priscilla DeGregory, "6 people sue over alleged injuries caused by electric Citi Bikes," *New York Post*, December 18, 2020, https://nypost.com/2020/12/18/6-people-say-they-were-injured-riding-pedal-assist-citi-bikes

[175] Lime, "User Agreement," June 23, 2023, https://www.li.me/user-agreement; Citi Bike, "Liability Waiver, Release, Indemnification, and Voluntary Assumption of Risk (the 'Release')," December 16, 2019, https://assets.citibikenyc.com/liability-waiver.html

[176] Theophilus Alexander, "The insurance gaps of e-bikes and e-scooters," *PIA Magazine* (November 2024), https://blog.pia.org/2024/12/11/the-insurance-gaps-of-e-bikes-and-e-scooters

[177] Ibid.

[178] Ibid.

[179] *See*, *e.g.*, Rad Power Bikes, "Consumer Purchase Terms and Conditions," July 30, 2024, https://www.radpowerbikes.com/pages/terms-of-purchase; Lime, "User Agreement," June 23, 2023, https://www.li.me/user-agreement; Aventon, "Terms of Service" (effective May 21, 2021), https://www.aventon.com/pages/terms-of-service

[180] National Conference of State Legislatures, *States Roll Out Electric Scooter Laws*, September 6, 2024, https://www.ncsl.org/transportation/states-roll-out-electric-scooter-laws

[181] National Association of City Transportation Officials, *157 Million Trips: Across the U.S. and Canada in 2023* (July 2024), https://nacto.org/wp-content/uploads/2024/08/Shared-micro-in-2023-snapshot_FINAL_July22-2024.pdf

[182] Bureau of Transportation Statistics, U.S. Department of Transportation, "Bikeshare and E-scooter Systems in the U.S.," July 20, 2024, https://data.bts.gov/stories/s/Bikeshare-and-e-scooters-in-the-U-S-/fwcs-jprj

[183] Adrian N. Fernandez et al., "Injuries With Electric vs Conventional Scooters and Bicycles," *JAMA Netw. Open*, July 23, 2024, https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2821387

[184] University of California San Francisco, "Electric Scooter and Bike Accidents Are Soaring Across the U.S.," July 23, 2024, https://www.ucsf.edu/news/2024/07/428096/electric-scooter-and-bike-accidents-are-soaring-across-us

[185] The number of fatalities reported is likely an undercount given it only reflects the number of deaths CPSC staff are aware of. U.S. Consumer Product Safety Commission, *Micromobility Products-Related Deaths, Injuries, and Hazard Patterns: 2017–2022* (September 2023), https://www.cpsc.gov/s3fs-public/Micromobility-Products-Related-Deaths-Injuries-and-Hazard-Patterns-2017-2022.pdf

[186] U.S. Consumer Product Safety Commission, *Micromobility Products-Related Deaths, Injuries, and Hazard Patterns: 2017–2022* (September 2023), https://www.cpsc.gov/s3fs-public/Micromobility-Products-Related-Deaths-Injuries-and-Hazard-Patterns-2017-2022.pdf

[187] Jordyn Pair, "Battery malfunction in electric scooter sparks Ann Arbor fire," *Mlive.com*, December 20, 2024, https://www.mlive.com/news/ann-arbor/2024/12/battery-malfunction-in-electric-scooter-sparks-ann-arbor-fire.html

[188] "1 man dead, 1 hurt after Bronx apartment fire; e-scooter battery identified as cause," *WABC-7* (New York, NY), October 25, 2024, https://abc7ny.com/post/1-man-dead-hurt-after-bronx-apartment-fire-scooter-battery-eyed-cause/15467598

[189] Amanda Woods, "E-scooter sparks deadly NYC fire, killing 69-year-old resident trapped in his apartment: FDNY," *New York Post*, October 16, 2024, https://nypost.com/2024/10/16/us-news/e-scooter-sparks-deadly-nyc-fire-killing-69-year-old-resident-trapped-in-his-apartment-fdny

[190] Gosia Wozniacka, "E-scooter battery explodes, starts fire at Portland apartment complex; authorities issue warning," *Oregonian*, August 19, 2024, https://www.oregonlive.com/environment/2024/08/e-scooter-battery-explodes-starts-fire-at-portland-apartment-complex-authorities-issue-warning.html

[191] Susannah Sudborough, "Five injured in Chelsea apartment fire caused by scooter battery explosion," *MassLive.com*, May 29, 2024, https://www.masslive.com/news/2024/05/five-injured-in-chelsea-apartment-fire-caused-by-scooter-battery-explosion.html

[192] Mario Cosentino, "House fire started by E-scooter, 2 people sent to the hospital," *WSET* (Lynchburg, VA), April 7, 2024, https://wset.com/news/local/house-fire-started-by-e-scooter-2-people-sent-to-the-hospital

[193] Josh Koehn and Noah Baustin, "San Francisco e-scooters are bursting into flames. Lawmakers want action," *San Francisco Standard*, January 9, 2024, https://sfstandard.com/2024/01/09/san-francisco-e-scooter-bike-battery-fires-legislation

[194] Jessica Xing, "Brooklyn fire that killed 3 family members was caused by lithium-ion battery in e-scooter, officials say," *CNN*, November 14, 2023, https://www.cnn.com/2023/11/14/us/brooklyn-fire-family-killed-lithium-battery-scooter/index.html

[195] Aaron Gordon, "43 Injured In Manhattan High-Rise Fire Caused by Electric Scooter," *VICE*, November 7, 2022, https://www.vice.com/en/article/43-injured-in-manhattan-high-rise-fire-caused-by-electric-scooter-fire

[196] U.S. Consumer Product Safety Commission, *Micromobility Products-Related Deaths, Injuries, and Hazard Patterns: 2017–2022* (September 2023), https://www.cpsc.gov/s3fs-public/Micromobility-Products-Related-Deaths-Injuries-and-Hazard-Patterns-2017-2022.pdf

[197] National Academies of Sciences, Engineering and Medicine, *E-Scooter Safety: Issues and Solutions*. Washington, D.C.: National Academies Press (2023), https://nap.nationalacademies.org/catalog/27252/e-scooter-safety-issues-and-solutions

[198] *See* Unagi Scooters, "Complete Guide to U.S. Electric Scooter Laws by State 2025," January 13, 2025, https://unagiscooters.com/scooter-articles/electric-scooter-laws; National Conference of State Legislatures, *States Roll Out Electric Scooter Laws*, September 6, 2024, https://www.ncsl.org/transportation/states-roll-out-electric-scooter-laws; Kelsey Thompson, "Austin audit finds faults in city's e-scooter crash data," *KXAN*, September 6, 2024, https://www.kxan.com/news/local/austin/austin-audit-finds-faults-in-citys-e-scooter-crash-data; Office of the City Auditor, City of Austin, *Electric Scooter Enforcement Program; The City needs better data to ensure program decisions are based on reliable information from all parts of the community* (August 2024), https://www.austintexas.gov/sites/default/files/files/Auditor/Audit_Reports/Electric_Scooter_Enforcement_Program_August_2024.pdf

[199] *See* U.S. Consumer Product Safety Commission, "CPSC Calls on Manufacturers to Comply with Safety Standards for Battery-Powered Products to Reduce the Risk of Injury and Death," December 20, 2022, https://www.cpsc.gov/Newsroom/News-Releases/2023/CPSC-Calls-on-Manufacturers-to-Comply-with-Safety-Standards-for-Battery-Powered-Products-to-Reduce-the-Risk-of-Injury-and-Death

[200] *See*, *e.g.*, U.S. Consumer Product Safety Commission, "Segway Recalls Segway Ninebot Max G30P and Max G30LP KickScooters Due to Fall Hazard and Risk of Serious Injury," March 20, 2025, https://www.cpsc.gov/Recalls/2025/Segway-Recalls-Segway-Ninebot-Max-G30P-and-Max-G30LP-KickScooters-Due-to-Fall-Hazard-and-Risk-of-Serious-Injury (Segway recalled roughly 220,000 Ninebot Max G30P and Max G30LP KickScooters after receiving "68 reports of folding mechanism failures, including 20 injuries to include abrasions, bruises, lacerations and broken bones"); U.S. Consumer Product Safety Commission, "DGL Group Recalls Hover-1 Dynamo E-Scooters Due to Risk of Serious Injury and Crash Hazard; Sold Exclusively at Walmart.com," July 25, 2024, https://www.cpsc.gov/Recalls/2024/DGL-Group-Recalls-Hover-1-Dynamo-E-Scooters-Due-to-Risk-of-Serious-Injury-and-Crash-Hazard-Sold-Exclusively-at-Walmart-com (DGL Group recalled its Hover-1 Dynamo model for a full refund after receiving "22 reports of the e-scooter's brakes failing, which resulted in seven injuries, including abrasions, contusions, a dislocated shoulder, fractured teeth, lacerations and strains."); U.S. Consumer Product Safety Commission, "Razor Recalls Icon Electric Scooters Due to Fall Hazard," July 25, 2024, https://www.cpsc.gov/Recalls/2024/Razor-Recalls-Icon-Electric-Scooters-Due-to-Fall-Hazard (Consumers were told to "immediately stop using the recalled scooters and contact Razor to receive a refund or coupon" after the

company "received 34 reports of partial or complete downtube separation with two reported injuries, including bruising.")

[201] For example, it took "seven reports of the electric scooters overheating, smoking, melting, or igniting, with one ignition resulting in a fire causing a burn injury and substantial property damage to a residential apartment building in Pittsburgh, Pennsylvania in November 2023" for CPSC to issue a product safety warning to immediately stop using and charging Swagtron SG-5 Swagger 5 Boost Commuter Electric Scooters and dispose of them. According to the agency, Swagtron "has not been responsive to CPSC's request for information about this product or for CPSC's request for a recall. CPSC is also aware of 139 reports of fire or other thermal incidents involving other Swagtron products." U.S. Consumer Product Safety Commission, "CPSC Warns Consumers to Immediately Stop Using Swagtron SG-5 Swagger 5 Boost Commuter Electric Scooters Due to Fire and Burn Hazards; Risk of Serious Injury and Death," October 17, 2024, https://www.cpsc.gov/Warnings/2025/CPSC-Warns-Consumers-to-Immediately-Stop-Using-Swagtron-SG-5-Swagger-5-Boost-Commuter-Electric-Scooters-Due-to-Fire-and-Burn-Hazards-Risk-of-Serious-Injury-and-Death

[202] Lime, "User Agreement," June 23, 2023, https://www.li.me/user-agreement

[203] Lyft, "Lyft Terms of Service," December 13, 2024, https://www.lyft.com/terms

[204] Spin, "Terms of Use," March 23, 2024, https://www.spin.app/policies/terms-us

[205] Veo, "Veo User Agreement," March 13, 2024, https://www.veoride.com/user-agreement

[206] *See*, *e.g.*, Segway, "Arbitration Agreement," https://store.segway.com/arbitration-agreement (viewed February 17, 2025); Lyft, "Lyft Terms of Service," December 13, 2024, https://www.lyft.com/terms; Spin, "Terms of Use," March 23, 2024, https://www.spin.app/policies/terms-us; Veo, "Veo User Agreement," March 13, 2024, https://www.veoride.com/user-agreement; Lime, "User Agreement," June 23, 2023, https://www.li.me/user-agreement. Segway, Spin and Veo offer a 30-day opt-out window, putting the burden on users to notice and understand the legalese as well as take action if they don't want their legal rights eliminated. Segway, "Arbitration Agreement," https://store.segway.com/arbitration-agreement (viewed February 17, 2025); Spin, "Terms of Use," March 23, 2024, https://www.spin.app/policies/terms-us; Veo, "Veo User Agreement," March 13, 2024, https://www.veoride.com/user-agreement

[207] Sam Blum, "Bird Flies Again From Bankruptcy With a New, Regulator-Friendly Strategy," *Inc.*, April 30, 2024, https://www.inc.com/sam-blum/bird-flies-again-from-bankruptcy-with-a-new-regulator-friendly-approach.html

[208] Alex Riggins, "San Diego approves deal linked to Bird bankruptcy that settles scooter injury suits," *San Diego Union-Tribune*, October 3, 2024, https://www.sandiegouniontribune.com/2024/10/03/san-diego-approves-deal-linked-to-bird-bankruptcy-that-settles-scooter-injury-suits; Becky Yerak, "Bird E-Scooter Company Fights to Settle Injury Lawsuits After Purdue Ruling," *Wall Street Journal*, July 23, 2024, https://www.wsj.com/articles/bird-e-scooter-company-fights-to-settle-injury-lawsuitsafter-purdue-ruling-a38a3322

[209] Erin Mindoro Ezra, David B. Ezra and Walker Macon, "Will you scoot by on coverage? The uncertainty of insurance for electric scooters," *Reuters*, June 20, 2024, https://www.reuters.com/legal/legalindustry/will-you-scoot-by-coverage-uncertainty-insurance-electric-scooters-2024-06-20