

Liability for Accidents involving Autonomous Vehicles

Assignment for Monday, April 22

- 1) Read the attached article excerpt describing current law relating to auto accidents.
- 2) Think about the questions below. Mandatory writing assignments are:

Group 1. Q1 & 5

Group 2. Q2 & 6

Group 3. Q3 & 7

Group 4. Q4 & 8

Note that these are mandatory for Groups 1-4, even though Groups 1-4 usually have assignments due on Wednesday. I needed to switch the days to even things out, because there was no assignment for Wednesday 4/17.

All non-mandatory writing is optional.

Questions:

- 1) A fully autonomous vehicle owned by Prof Erman collided with a conventional vehicle driven by Prof. Gross. Prof. Erman was a passenger in his vehicle. He was not injured, and his vehicle suffered only minor damage, but Prof. Gross suffered severe injuries, and her car was totaled. Prof. Gross was driving in a responsible, non-negligent manner. Prof. Erman's vehicle collided with Prof. Gross's vehicle because one of its sensors suddenly and without warning malfunctioned. The only way that Prof. Erman's vehicle could have avoided the accident was if it had a second, back up sensor, and providing back-ups for all sensors on the vehicle would have increased the cost of the vehicle by \$20,000. Is Prof. Erman and/or the manufacturer of his vehicle liable under current law? Should Prof. Erman and/or the manufacturer be liable?
- 2) A fully autonomous vehicle owned by Prof Erman collided with Prof. Gross, a pedestrian. Prof. Erman was a passenger in his vehicle. He was not injured, and his vehicle suffered only minor damage, but Prof. Gross suffered severe injuries. Prof. Gross was in a rush and crossed the street not a corner, while texting on her phone, and without looking out for cars. The autonomous vehicle did not stop because of a software error. Is Prof. Erman and/or the manufacturer of his vehicle liable under current law? Should Prof. Erman and/or the manufacturer be liable?
- 3) A fully autonomous vehicle owned by Prof Erman collided with Prof. Gross, a pedestrian. Prof. Erman was a passenger in his vehicle. He was not injured, and his vehicle suffered only minor damage, but Prof. Gross suffered severe injuries. Prof. Gross was in a rush. She saw Prof. Erman's car had a lidar sensor on the roof and realized it was a self-driving car. She assumed it

was programmed to stop to avoid accidents. So she knowingly and intentionally walked out in the middle of the street where she knew she would be hit by Prof. Erman's car unless it automatically stopped. The autonomous vehicle did not stop because of a software error. Is Prof. Erman and/or the manufacturer of his vehicle liable under current law? Should Prof. Erman and/or the manufacturer be liable?

4) A fully autonomous vehicle owned by Prof Erman collided with a tree. Prof. Erman was a passenger in his vehicle. He was severely injured, and his vehicle suffered significant damage. The accident could have been avoided if the vehicle had a higher quality sensor that worked better in cloudy conditions. That sensor was available as a \$2000 option, which Prof. Erman did not buy. Is the manufacturer liable under current law? Should it be liable?

5) A fully autonomous vehicle owned by Prof Erman collided with a conventional vehicle driven by Prof. Gross. Prof. Erman was a passenger in his vehicle. He was not injured, and his vehicle suffered only minor damage, but Prof. Gross suffered severe injuries, and her car was totaled. Prof. Gross was driving in a responsible, non-negligent manner. Prof. Erman's vehicle collided with Prof. Gross's vehicle because its sensors had not been properly recalibrated during a regular service recommended in the Owner's Manual. The manufacturer viewed service as a profit center and charged \$1000 to recalibrate the sensors. Wilton's, a local service station unaffiliated with the car's manufacturer, charged only \$500 to recalibrate the sensors, but did so improperly. Wilton's does not have sufficient assets or insurance coverage to fully compensate Prof. Gross. Who is liable for Prof. Gross's injuries under current law? Who should be liable?

6) A fully autonomous vehicle owned by Prof Erman collided with a conventional vehicle driven by Prof. Gross. Prof. Erman was a passenger in his vehicle. He was not injured, and his vehicle suffered only minor damage, but Prof. Gross suffered severe injuries, and her car was totaled. Prof. Gross was driving in a responsible, non-negligent manner. Prof. Erman's vehicle collided with Prof. Gross's vehicle because it lacked a sensor that could have been included in the car for an additional \$10. Even without that additional sensor, Prof. Erman's car was safer than a conventional car. Is Prof. Erman and/or the manufacturer of his vehicle liable under current law? Should Prof. Erman and/or the manufacturer be liable?

7) A fully autonomous vehicle owned by Prof Erman collided with a conventional vehicle driven by Prof. Gross. Prof. Erman was a passenger in his vehicle. He was not injured, and his vehicle suffered only minor damage, but Prof. Gross suffered severe injuries, and her car was totaled. Prof. Gross was driving in a responsible, non-negligent manner, but experts testified that, if Prof. Gross has been driving an autonomous vehicle, the accident would not have happened, because an autonomous vehicle would have sensed the problem earlier than Prof. Gross and would have applied the brakes more quickly. Prof. Erman's vehicle had the safety features and sensors typical of autonomous vehicles and was well maintained, but additional sensors, costing \$10,000 would have enabled his car to have prevented the accident. Is Prof. Erman and/or the manufacturer of his vehicle liable under current law? Should Prof. Erman and/or the manufacturer be liable?

8) Prof. Erman owns a vehicle with SAE Level 3 automation. That is, “Driver is a necessity, but is not required to monitor the environment. The driver must be ready to take control of the vehicle at all times with notice.” A sign on the dashboard reminds all drivers that they must be ready to take control at all times when the car’s driver alert alarm sounds. Prof. Erman has owned the car for over a year and has driven it more than 15,000 miles. During those 15,000 miles, the car worked flawlessly and the driver alarm never sounded. Prof. Erman grew quite confident in his car’s abilities. He decided to make a night time trip from Los Angeles to San Francisco. As planned, he slept when the car was on the 5 freeway. Midway through the trip. The driver alert sounded, because the car’s sensors indicated a situation that the automated system didn’t know how to handle – construction that required all drivers to divert into a lane that ordinarily reserved for vehicles going the opposite direction. The driver alert alarm sounded. Prof. Erman woke up and tried to assess the situation, but the car crashed into construction workers who were repairing the road before Prof. Erman could react. Is Prof. Erman and/or the manufacturer of his vehicle liable under current law? Should Prof. Erman and/or the manufacturer be liable?

fact, my analysis suggests that when prospective human victims are readily able to discern AVs from human drivers, an efficient doctrine might either *increase* or *decrease* the contributory negligence standard of care for human victims relative to human-human interactions, depending on the situational context that generates the accident.⁷

My analysis proceeds as follows. Section 2 provides a brief institutional overview of the status quo ante in accident law across US jurisdictions. Section 3 develops a theoretical framework of multi-lateral investment by injurers and victims fashioned after the standard account in the law and economics literature, extending the baseline model to consider the introduction of AV technology in a hybrid setting, where some AV adopting injurers interact with human victims. Section 4 discusses a variety of extensions to the model to explore robustness. Section 5 concludes.

2 Doctrinal Landscape

Before plunging into analytics, this section aims to provide a brief orientation for the uninitiated as to how American tort law apportions liability risk in vehicular accidents. The history is a long one, ably chronicled by acknowledged experts in the field. (*See, e.g.*, Engstrom 2018; Rabin 2005; Geistfeld 2017; and Mashaw & Harfst 1990. Interested readers should consult those sources for a richer set of details.) In short, however, it is fair to say that transportation accidents shaped large swaths of the tort law landscape we have inherited today. In delivering this brief overview, I will refer many times of Table 1 below,⁸ which illustrates a state-by-state comparison of certain central features of the US tort law system as it pertains to automobile accidents. I subdivide discussion into regulation of driver precautions, and (of particular relevance to AV technology) product liability claims.

⁷And even outside of such complete information environments, the optimal comparative/contributory fault standard for human victims would still be appreciably different in a hybrid setting. See Section 3(b).

⁸This table was assembled from a variety of sources, including Kroll & Westerlind (2012); American Bar Association (2009); Maryland Department of Legislative Services (2004); and proprietary research. Contact the author for a more detailed table with citations.

State	Vehicular Accidents			Products Liability			Punitive Damages
	Standard	Cont/Comp Negligence	Cutoff	Standard	Cont/Comp Negligence	Cutoff	
AL	Negligence	Contributory	n/a	Negligence	Contributory	n/a	UnCapped
AK	Negligence	Pure Comparative	n/a	Strict Liability	Pure Comparative	n/a	Capped
AZ	Negligence	Pure Comparative	n/a	Strict Liability	Pure Comparative	n/a	UnCapped
AR	Negligence	Modified Comparative	<50%	Strict Liability	Modified Comparative	<50%	Capped
CA	Negligence	Pure Comparative	n/a	Strict Liability	Almost Pure Comparative	n/a	UnCapped
CO	Negligence	Modified Comparative	<50%	Strict Liability	Modified Comparative	<50%	Capped
CT	Negligence	Modified Comparative	≤50%	Strict Liability	Almost Pure Comparative	≤50%	Capped
DE	Negligence	Modified Comparative	≤50%	Negligence	Modified Comparative	≤50%	UnCapped
DC	Negligence	Contributory	n/a	Strict Liability	Contributory	n/a	UnCapped
FL	Negligence	Pure Comparative	n/a	Strict Liability	Pure Comparative	n/a	Capped
GA	Negligence	Modified Comparative	<50%	Strict Liability	Modified Comparative	<50%	Capped
HI	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	UnCapped
ID	Negligence	Modified Comparative	<50%	Strict Liability	Modified Comparative	<50%	Capped
IL	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	UnCapped
IN	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	Capped
IA	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	UnCapped
KS	Negligence	Modified Comparative	<50%	Strict Liability	Modified Comparative	<50%	Capped
KY	Negligence	Pure Comparative	n/a	Strict Liability	Contributory	n/a	UnCapped
LA	Negligence	Pure Comparative	n/a	Strict Liability	Pure Comparative	n/a	UnCapped
ME	Negligence	Modified Comparative	<50%	Strict Liability	Modified Comparative	<50%	Capped
MD	Negligence	Contributory	n/a	Strict Liability	Contributory	n/a	UnCapped
MA	Negligence	Modified Comparative	≤50%	Negligence	Modified Comparative	≤50%	UnCapped
MI	Negligence	Almost Pure Comparative	≤50%	Strict Liability	Almost Pure Comparative	≤50%	UnCapped
MN	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	UnCapped
MS	Negligence	Pure Comparative	n/a	Strict Liability	Pure Comparative	n/a	UnCapped
MO	Negligence	Pure Comparative	n/a	Strict Liability	Pure Comparative	n/a	UnCapped
MT	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	UnCapped
NE	Negligence	Modified Comparative	<50%	Strict Liability	Modified Comparative	<50%	None
NV	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	Capped
NH	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	None
NJ	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	UnCapped
NM	Negligence	Pure Comparative	n/a	Strict Liability	Pure Comparative	n/a	UnCapped
NY	Negligence	Pure Comparative	n/a	Strict Liability	Pure Comparative	n/a	UnCapped
NC	Negligence	Contributory	n/a	Negligence	Contributory	n/a	UnCapped
ND	Negligence	Modified Comparative	<50%	Strict Liability	Modified Comparative	<50%	Capped
OH	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	UnCapped
OK	Negligence	Modified Comparative	≤50%	Strict Liability	None	n/a	UnCapped
OR	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	UnCapped
PA	Negligence	Modified Comparative	≤50%	Strict Liability	None	n/a	UnCapped
RI	Negligence	Pure Comparative	n/a	Strict Liability	None	n/a	UnCapped
SC	Negligence	Modified Comparative	<50%	Strict Liability	None	n/a	UnCapped
SD	Negligence	Modified Comparative	<<50%	Strict Liability	None	n/a	UnCapped
TN	Negligence	Modified Comparative	<50%	Strict Liability	Modified Comparative	<50%	UnCapped
TX	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	Capped
UT	Negligence	Modified Comparative	<50%	Strict Liability	Modified Comparative	<50%	UnCapped
VT	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	UnCapped
VA	Negligence	Contributory	n/a	Strict Liability	Contributory	n/a	Capped
WA	Negligence	Pure Comparative	n/a	Strict Liability	Pure Comparative	n/a	None
WV	Negligence	Modified Comparative	<50%	Strict Liability	Modified Comparative	<50%	UnCapped
WI	Negligence	Modified Comparative	≤50%	Strict Liability	Modified Comparative	≤50%	UnCapped
WY	Negligence	Modified Comparative	≤50%	Strict Liability	None	n/a	UnCapped

Table 1: Summary of Vehicular Accident and Product Liability Laws in the U.S.

2.1 Driver Precautions

In regulating civil liability for vehicular accidents (other than deliberate acts of harm with a vehicle), US jurisdictions overwhelmingly employ some version of the “negligence” standard to judge the behavior of drivers. That is, drivers owe other actors on the highway system a duty to take reasonable precautions (or “due care”) as they drive. As its name implies, the negligence standard is just that – a standard – and thus compliance tends to be measured on a situational basis, against the facts and circumstances surrounding the accident.

Although there are many ways to characterize “due care,” a particularly useful one for this paper is to cast it in utilitarian, cost-benefit terms: Under this formulation, an incremental precaution is deemed required if, in the facts and circumstances then prevailing, the expected marginal benefit of taking the precaution (*e.g.*, through reduced accident probabilities and/or severities) exceeds the marginal cost of the precaution. Should a driver fail to take a precaution that a negligence standard would require, and should that omission cause a harm (both “in fact” and “proximately”), then the negligent driver is liable for all damages that an injured party(ies) can prove. On the other hand, if the harm could not have been avoided, or was avoidable only with precautions deemed “unreasonable” (pursuant to the same marginal cost-benefit test above), then the injured party cannot recover (even if it is clear that an accident would have been averted had the driver taken the unreasonable precaution). In other words, a negligence standard does not require one to take precautions that are unreasonably costly or inconvenient (relative to anticipated benefits) in order to avoid civil liability.

Even as US jurisdictions have overwhelmingly embraced the negligence standard for automobile accidents (see Table 1), it merits noting that this is not the only fault standard one might conceive. Under a strict liability standard, for instance, the injurer would be responsible for *all* harms caused by her failure to take precautions (regardless of how cost-effective such precautions would have been). Alternatively, under a recklessness standard, the driver is expected to take only those precautions that more-than-comfortably pass a cost benefit test – *i.e.*, whose expected marginal benefits are substantially larger than their marginal costs.

While negligence sounds simple enough on first blush, applying it gets complicated in many ways—one of them being the fact drivers are not merely navigating an obstacle course of inanimate objects. Rather, they are par-

ticipating in multi-party ecosystem featuring many active decision makers. When an accident occurs, it frequently involves multiple agents (drivers/pedestrians/cyclists) who are simultaneously making precautionary choices (or—in some cases—fail to do so). Courts realized early on that vehicular harms were not infrequently the product of lapses by victims as well as injurers (and, perhaps, even third parties).

How does the tort system treat a negligent driver who causes harm to another party who was also negligent? Until the mid-20th century, most American jurisdictions embraced the doctrine of “contributory negligence,” providing an affirmative defense to a negligent defendant who could show that the victim was also negligent herself, thereby avoiding liability altogether. To this day, a small handful of states (such as Alabama, Maryland and Virginia) continue to adhere to contributory negligence as an affirmative defense (See Table 1, Column 3). Over time, however, through judicial precedent and/or statutory reform, most jurisdictions began to move towards what is now commonly referred to as “comparative” negligence.⁹ Comparative negligence yields the same result as contributory negligence when the injurer alone is found to be negligent: The injurer remains 100% liable. However, when the injured party is *also* judged to be negligent, comparative negligence regime (in its “pure” form) requires the judicial fact finder to weigh the relative fault between the negligent plaintiff and the negligent defendant(s) (and sometimes even that of third parties). If the court determines that the plaintiff is (say) 40 percent responsible and the defendant is 60 percent responsible, then the plaintiff is allowed to collect only that 60 percent of his total damages allocated to the defendant.¹⁰ There are a handful of states adhering to this “pure” form of comparative fault (including California and New York).

The remaining significant majority of states (including Illinois, Massachusetts and Texas) have embraced what amounts to an amalgam of comparative and contributory negligence rules, popularly known as “modified” comparative negligence. Like pure comparative negligence, this regime requires a court to assess and weigh the negligent parties’ relative degrees of fault; but the modified rule also asks whether plaintiff’s adjudicated share of

⁹Early judicial movements were in Florida and California. See *Hoffman v. Jones*, 280 So.2d 431 (Fla. 1973); *Li v. Yellow Cab Co.*, 532 P.2d 1226, 13 Cal.3d 804 (1975).

¹⁰On yet another layer of complexity, if a court finds that some of the negligence responsibility should be assigned to non-parties in the litigation, then the defendant may also be held responsible for the share of non-parties too (depending on whether the jurisdiction allows for “joint and several” liability — a topic beyond the scope of this paper).

fault is strictly less than (or, in some cases no higher than) a specified critical cutoff (usually around 50% – See Table 1, Column 4). If the plaintiff’s share satisfies the cutoff criterion, then the usual proportioning rules of pure comparative negligence apply. However, if the plaintiff’s share is above the cutoff, then the rule functions as a contributory negligence standard, and all recovery is withheld.

2.2 Product Liability

As noted in Section 1 (and developed more below), the increasing penetration of driverless cars on American roadways is likely to magnify emphasis on the use of another branch of tort law—product liability—to assess liability when an accident involves an autonomous vehicle. Though broadly viewed as a part of tort law, this doctrine originally grew out of the law of contracts, and specifically long-standing doctrines pertaining to warranties of quality that are “implied” pursuant to a sale of goods and/or services.¹¹ Under these doctrines, the purchaser of a defective product could claim damages caused by any failure of the product to satisfy the implied minimal quality threshold. Although warranty claims can be powerful, they are a traditional form of contract right, and thus their availability is limited (with few exceptions) to parties who are in a direct contractual privity with one another. A harmed consumer’s ability to enforce a warranty extends (at best) to the direct retailer of the good—with whom the consumer was presumably a direct contractual counterparty.¹² But if the retailer is not also the manufacturer, or if the harmed party is a third party and not the purchaser, then the liability trail goes cold.

Perhaps the most significant evolutionary moment in product liability law was its early 20th Century move to relax the privity requirement that warranty law usually requires. It is perhaps ironic justice that this evolutionary moment is acknowledged to have occurred in a dispute pertaining to an allegedly defective automobile: *MacPherson v. Buick Motor Co.*¹³ (Mashaw & Harfst 1990). In *MacPherson*, a purchaser of an automobile was injured

¹¹The chief forms of implied warranty are for “merchantability” and “fitness for a particular purpose.” See Uniform Commercial Code Sections 2-314, 2-315.

¹²Note that even this warranty claim would be a stretch if, say, a third party other than the purchaser were injured due to a product defect. Here, too, the victim would have no direct contractual privity even with the retailer.

¹³*MacPherson v. Buick Motor Co.*, 217 N.Y. 382, 111 N.E. 1050 (1916).

when a defective wheel collapsed on a car he had purchased from a dealer, who had in turn purchased it from the defendant manufacturer (Buick). In affirming a lower court’s holding for the plaintiff, Justice Cardozo laid out the template of modern products liability law:

If the nature of a thing is such that it is reasonably certain to place life and limb in peril when negligently made, it is then a thing of danger. Its nature gives warning of the consequence to be expected. If to the element of danger there is added knowledge that the thing will be used by persons other than the purchaser, and used without new tests, then, irrespective of contract, the manufacturer of this thing of danger is under a duty to make it carefully. That is as far as we need to go for the decision of this case....There must also be knowledge that in the usual course of events the danger will be shared by others than the buyer.... If [the manufacturer] is negligent, where danger is to be foreseen, a liability will follow.¹⁴

MacPherson’s most celebrated innovation for products liability law was its break with the contractual privity requirement to trigger manufacturer liability in “warranty-like” claims. But the holding also appears—at least on the basis of its text—to ground the manufacturer’s liability in a tort-like theory of *negligence*. This is an odd fit with traditional warranty law, which is largely the province of *strict liability*, wherein the warranting party’s exposure is independent of her precaution efforts (or lack thereof). Thus, if one understands the case as simply extending warranty enforcement rights to foreseeable third parties (as some have construed it), strict liability should have followed—except that it didn’t. In the wake of *MacPherson*, much confusion ensued.

And it substantially continues today. Indeed, the interpretive conundrum over what product liability actually *is* has never been resolved completely. As reflected in Table 1, the vast majority of US jurisdictions take a rhetorical cue from warranty law, describing their own product liability regime as imposing *strict liability* on defendants. In so doing, most of these state-level authorities work from a template established by the Restatement 2nd of Torts, Section 402A, which reads:

¹⁴111 NE at 1053.

1. One who sells any product in a defective condition unreasonably dangerous to the user or consumer or to his property is subject to liability for physical harm thereby caused to the ultimate user or consumer, or to his property, if:
 - (a) the seller is engaged in the business of selling such a product, and
 - (b) it is expected to and does reach the user or consumer without substantial change in the condition in which it is sold.

2. The rule stated in Subsection (1) applies although
 - (a) the seller has exercised all possible care in the preparation and sale of his product, and
 - (b) the user or consumer has not bought the product from or entered into any contractual relation with the seller.

Significant ink has been spilled over the question of whether the text of Section 402A—and the myriad statutes / doctrines fashioned after it—truly announces a strict liability rule (as subsection 2(a) suggests), or instead smuggles in the contraband of negligence by conditioning liability on the product being in an “unreasonably dangerous” condition (per subsection 1). And important contours of product liability law in most states continue to reflect this jurisprudential schizophrenia, distinguishing (for instance) between “manufacturing” and “design” defects, with strict liability (or something close) attaching to the former and negligence (or something close) attaching to the latter.¹⁵ In any event, it is now generally agreed that the “strict liability” label should not be read literally: it is a term of art that just as often signals a negligence standard for product manufacturers.

Accordingly, several challenges encumber the application of product liability law in the AV space. Primarily, the distinction between “design” and “manufacturing” defects is not always clear cut. Particularly when a defect relates to code or an algorithmic process, it arguably pertains to both the design of the product and its manufacture (Turner & Richardson 2002). And

¹⁵See Restatement 3rd of Torts, at 7-9 (reporter commentary to new Section 1). It is worth noting that the Third Restatement attempted valiently to “clarify” these distinctions, but did so constrained by a series of compromises with established state law doctrine, rendering a result that was (at least to this reader) is somewhat less than clear.

second, even if one could properly relegate AV defects to the design category, some states appear to take more literally the “strict-liability” labeling of product defects, at least when it pertains to contributory / comparative negligence defenses. Indeed, several states have simply refused apply their own general contributory/comparative negligence rules to product claims, taking the position that such defenses are simply anathema to a right that purports to be grounded in strict liability. (Examples of such include Oklahoma, Pennsylvania, Rhode Island and South Carolina – See Column 6 in Table 1). Put simply, product liability has long been in something of a state of flux when confronted with new technologies (Villasensor 2014). While that flux clearly imposes costs, it may also raise opportunities for tailoring a *sui generis* product liability doctrine for AV/human interactions. (I return to this issue in the next section.)

2.3 Punitive Damages

Finally, although not directly related to driver or product liability per se, I include a summary of punitive damages liability at the end of Table 1. Punitives are an assessment of monetary damages that are unrelated to compensating the injured party, but are instead awarded to punish the defendant for particularly wanton, malicious, cruel, or otherwise bad faith conduct.¹⁶ Most states allow for punitive damages in torts cases, but some exclude either personal injury or wrongful death actions from eligibility. In addition, several states have imposed a cap on the maximal value of punitive damages available.¹⁷ Beyond these explicit caps, the United States Supreme Court has held that constitutional due process concerns also constrain punitive damages, and that such awards become constitutionally suspect when they grow to an order of magnitude larger than compensatory damages.¹⁸

Although this overview has been a brief one, it provides a bit of the institutional back-story for the more analytical section that follows. In particular,

¹⁶In New York, for example, punitives are permitted when a defendant acts "recklessly, wantonly, or without regard to the rights of the plaintiff or of people in general." *Hall v. Consolidated Edison Corp.*, 428 N.Y.S.2d 837 (1980). In California, punitives are available in cases involving oppression, fraud, or malice. Cal. Civil Code § 3294.

¹⁷In Texas, for example, exemplary damages may not exceed the greater of either \$200,000 or two times the amount of economic damages, plus an amount equal to any non-economic damages found by the jury, not to exceed \$750,000. Tex. Civ. Prac. & Remedies Code § 41.008.

¹⁸*State Farm Mutual Automobile Insurance Co. v. Campbell*, 538 U.S. 408 (2003).