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Liability for the Use of Driverless Cars in the Restaurant and Retail Industry

I. Understanding the Law

Regulating the Unknown and Preparing for the Future

The Department of Transportation's ("DOT") Federal Automated Vehicles Policy (September 2016)^{1,2} is intended to establish a foundation and framework upon which future agency action will occur. In this policy, DOT states that the development of advanced automated vehicle safety technology, including fully self-driving cars, may prove to be the greatest personal transportation revolution since use of personal automobile first became popular.

These vehicles are known as Highly Automated Vehicle ("HAVs"). DOT believes that the number of people who died on U.S. roadways, coupled with the fact that 94% of crashes are tied to human error highlights the need for HAVs. Furthermore, HAVs have the potential to transform personal mobility and open doors to people and communities that have limited options as to mobility. This also applies to restaurant and retail, as HAVs can solve practical issues associated with deliveries of goods and services.

The Department of Transportation's Federal Automated Vehicles Policy

DOT's policy is intended to be agency guidance rather than rulemaking to speed up the promulgation of initial regulatory framework and to provide best practices to guide manufacturers, and "other entities", in the safe design, development, testing and deployment of HAVs. "Other entities" are defined as any individual or company that is not a manufacturer, involved with helping to manufacture, design, supply, test, sell, operate or deploy automated vehicles or equipment. These entities include, but are not limited to, equipment designers and suppliers, entities that outfit any vehicle with automation capabilities or HAV equipment for testing, for commercial sale, and/or for use on public roadways, transit companies, automated fleet operators, "driverless" taxi companies, and any other individual or entity that offers services utilizing highly automated vehicles.

DOT notes that it intends to update this policy within a year. However, as of the writing of this proposal, it had not yet been issued. DOT's intention was to update policy based on input from stakeholders which could include input from retail/restaurant industry.

¹ DEP'T OF TRANSP, FEDERAL AUTOMATED VEHICLE POLICY (2016), <https://www.transportation.gov/sites/dot.gov/files/docs/AV%20policy%20guidance%20PDF.pdf>

² This policy was issued by the administration of President Barack Obama. At the time of this outline, the administration of President Donald Trump had not, as of yet, taken steps to repudiate or alter this policy.

Understanding the Levels of Automation

The DOT policy adopts the levels of automation as defined by SAE International. DOT's policy divides vehicles into levels based on who does what and when. The levels range from 0-5. The lowest level, Level 0, means a human driver does everything. The highest level, Level 5, means the automated system can perform all driving tasks, under all conditions that a human driver could perform them. An autonomous or "driverless" vehicle is level 5. DOT draws a distinction between levels 0-2 and 3-5. Levels 0-2 mean that a human driver is primarily responsible for monitoring the driving environment. Levels 3-5 mean that an automated system is primarily responsible for monitoring the driving environment. HAV Systems are level 3 and higher.

Education and Training Programs

Manufacturers and other entities should develop, document, and maintain employee, dealer, distributor, and consumer education and training programs to address the anticipated differences in the use and operation of HAVs from those of the conventional vehicles that the public owns and operates today.

Such programs should be designed to provide the target users the necessary level of understanding to use these technologies properly, efficiently, and in the safest manner possible.

State Involvement

DOT is encouraging states to allow DOT alone to regulate the performance of HAV technology and vehicles. NHTSA is prepared to work with states to evaluate the ability of drivers to stay engaged while HAVs are performing part (or all) of the driving task, as well as to identify and mitigate other human behavior issues such as misuse and inadequate maintenance of HAVs. Regulating motor vehicle insurance and liability will remain a function of the states under this policy.

The general areas of responsibility should remain largely unchanged for HAVs, meaning that DOT and the federal government are responsible for regulating motor vehicles and their equipment, and states are responsible for regulating the human driver and most other aspects of motor vehicle operation.

However, as motor vehicle equipment increasingly performs "driving" tasks, DOT's exercise of its authority and responsibility to regulate the safety of such equipment will increasingly encompass tasks similar to "licensing" of the non-human "driver" (i.e. hardware/software performing all or part of the driving task). For purposes of state traffic laws that apply to drivers of vehicles, States may wish to deem an HAV system that conducts the driving task and monitors the driving environment to be the "driver" of the vehicle. NHTSA believes that there should be a consistent set of laws and regulations governing the operation and testing of HAVs.

Safety Recommendations

The DOT recommends that States set up a lead agency responsible for consideration of any test of HAVs and a jurisdictional automated safety technology committee that is launched by the designated lead agency. Manufacturers and other entities should submit an application to their designated lead agency in each jurisdiction in which they plan to test their HAVs. The application should identify the vehicle that will be used on roadways, the identify of each test operator, the entity's safety/compliance plan for testing vehicles, evidence of the entity's ability to satisfy a judgment(s) for damages for personal injury,

death or property damage caused by a vehicle in testing in the form of an instrument of insurance, a surety bond, or proof of self-insurance for no less than \$5 million, and a summary of the training provided to those designated as operators of the test vehicles. Approval should be granted by the lead agency if evidence of insurance, operator training, and self-certification is demonstrated.

Compliance

Manufacturers or other entities must comply with Federal law and applicable NHTSA regulations before operating vehicles on public roadways, whether they are in testing or “normal” operation. The vehicle used in testing must be operated by persons designated by the entity who have received training and instruction about the capabilities and limitations of the vehicle, and must have a valid State driver’s license. All crashes involving test vehicles must be reported.

Current State Laws³

Since 2012, at least 41 states and DC have considered legislation related to autonomous vehicles. Twenty states have passed legislation related to autonomous vehicles and four states have issued executive orders related to autonomous vehicles. FL, NV, MI, CA have passed laws that allow for the operation of autonomous vehicles on the public highways of a state and allow them to be operated without a driver present. A number of other states have enacted legislation providing for pilot programs to study and test the use of autonomous vehicles. Several states have legislation related to the use of autonomous vehicles on the public highways of the state pending.

II. Liability and Insurance of Autonomous Vehicles

Position of the Federal Automated Vehicles Policy⁴

Under the Federal Automated Vehicles Policy, States are responsible for determining liability rules for HAVs and should consider how to allocate liability among HAV owners, operators, passengers, manufacturers, and others when a crash occurs. States should determine who is required to carry motor vehicle insurance for HAVs. Determination of who or what is the “driver” of an HAV in a given circumstance does not necessarily determine liability for crashes does not necessarily determine liability for crashes involving HAVs.

Rules/laws allocating tort liability could have a significant effect on consumer acceptance of and the rate of deployment of HAVs. Such rules could also have a substantial effect on the level and incidence of automobile liability insurance costs.

Theories of Liability^{5,6}

³ *Autonomous Vehicles- Self-Driving Vehicles Enacted Legislation*, National Conference of State Legislatures (July 25, 2017), <http://www.ncsl.org/research/transportation/autonomous-vehicles-self-driving-vehicles-enacted-legislation.aspx>

⁴ DEP’T OF TRANSP, FEDERAL AUTOMATED VEHICLE POLICY (2016), <https://www.transportation.gov/sites/dot.gov/files/docs/AV%20policy%20guidance%20PDF.pdf>.

⁵ Julie Goodrich, *Driving Miss Daisy: an Autonomous Chauffeur System*, 51 Hous. L. Rev. 265, 279-81 (2013).

⁶ Bryant Walker Smith, *Automated Driving and Product Liability*, 2017 Mich. St. L. Rev. 1, 44-46, 52 (2017).

For accidents involving HAVs, theories of liability include negligence, strict liability, and products liability. Determination of who was operating an autonomous vehicle may be critical in assigning liability for a car crash, especially if there is not a human present in the car. Potential parties that could be at fault include the operator (definitions for operator vary amongst states), the vehicle manufacturer (the manufacturer of the original non-autonomous vehicle), the automator (the modifier of the original vehicle into an autonomous vehicle or the creator of an autonomous vehicle from scratch), and the programmer (the person responsible for creating and coding the autonomous software).

The most likely theory to be applied to crashes involving autonomous vehicles is products liability, shifting liability from human drivers to manufacturers, automators in particular. HAVs will make many, if not all of the decisions necessary for driving, and as such it is widely accepted that design issues will play a much greater role in automated driving crashes than in today's conventional crashes.

Shifting real time decisions from human drivers to automated driving systems means that automotive companies could be liable in a greater share of crashes involving these systems. Potential defendants could include automotive manufacturers, component suppliers, software providers, data providers, fleet operators, and infrastructure managers among others. The decisional shift from human driver to automated driving system will significantly increase the importance of product liability relative to vehicular negligence.

Future Liability Implications

In the future, crash liability regimes may be premised on the liability of the vehicle manufacturers. The software that operates an automated driving system as well as the data used or produced by such a system may or may not be products for the purposes of product liability law. Complex business relationships, product interactions, and informational supply chains may lead courts to expand or limit the duties of some potential defendants. The argument that the automated driving system in question performed unreasonably will be central to many personal injury claims.

This question of unreasonable performance is likely to have two independent prongs: An automated driving system has performed unreasonably if either (a) a human driver or (b) a comparable automated driving system could have done better under the same circumstances. Data will be essential to many of these claims.; specific information about the crash may be stored in components of the automated driving system that are on the vehicle, in other systems on board the vehicle, in other vehicles or devices, or in off-board systems accessible to entities that may or may not be party to the case. In some cases, these data provide unprecedented clarity about the actual causes of a particular crash.

Under the current liability regime, for HAVs that are level 4/5, it is the manufacturers who will bear the liability in that situation because the driver isn't going to be doing anything.⁷

⁷ Danielle Muoio, *Tesla is Already Showing How the Insurance Industry Will Be Disrupted By Self-Driving Cars*, Business Insider (Feb. 26, 2017, 5:55 PM), <http://www.businessinsider.com/driverless-cars-could-negatively-affect-insurance-industry-2017-2>.

Driverless Cars and Insurance^{8,9}

Insurance rates are calculated mostly based on the attributes of drivers, such as their claims history, driving records, etc. Driverless car shifts this away from driver/car owner to the automaker, but the shift will not be complete or immediate. Current thinking is that manufacturers will ultimately be responsible for future accidents when an automated vehicle is involved. This could result in a large, long-term expense that could create disincentives for developing the technology.

What Happens to Insurance?

At this time, there is no consensus among the 50 States concerning insurance premium rates applicable to driverless vehicles. Michigan recently passed a law which provides that an automaker assumes liability and insures every car in its fleet when driverless systems are at fault. Since there will not be a large number of these fully driverless cars on the road for many years, cases involving such cars will likely be determined on a case by case basis for now. The general consensus is that if self-driving cars reduce the number of collisions, there should be an education in the risk premium. However, especially with level 2 or 3 autonomous vehicles, insurance does not become obsolete, as the automated system may not be responsible for the crash; human drivers may still be responsible for crashes in these types of automated vehicles and so their insurer still bears the cost. Insurers have already noted that the resulting reduction of accidents because of automation threatens their business model as premiums will ultimately fall.

Preparing for the Shift

In anticipation of this shift, some insurers are rolling out usage-based insurance policies (UBIs), which charge consumers based on how many miles they drive and the safety of their driving habits.¹⁰ At least for now, it appears that restaurants/retailers who wish to operate automated vehicles to serve their customers should continue to purchase automobile insurance, as a proactive measure if nothing else.

III. Future Implications for the Retail and Restaurant Industries

Elimination of designated delivery persons^{11,12,13}

⁸ Yuki Noguchi, *Self-Driving Cars Raise Questions About Who Carries Insurance*, NPR (Apr. 3, 2017, 4:23 AM), <http://www.npr.org/sections/alltechconsidered/2017/04/03/522222975/self-driving-cars-raise-questions-about-who-carries-insurance>.

⁹ Danielle Muoio, *Tesla is Already Showing How the Insurance Industry Will Be Disrupted By Self-Driving Cars*, Business Insider (Feb. 26, 2017, 5:55 PM), <http://www.businessinsider.com/driverless-cars-could-negatively-affect-insurance-industry-2017-2>.

¹⁰ Joel Barbier, *Self-driving Cars will disrupt more than the auto industry. Here are the winners and losers*, CNBC (May 3, 2017, 11:06 AM), <http://www.cnbc.com/2017/05/03/self-driving-cars-will-disrupt-10-industries-commentary.html>

¹¹ *24 Industries Other Than Auto That Driverless Cars Could Turn Upside Down*, CBInsights (Mar. 21, 2017), <https://www.cbinsights.com/research/13-industries-disrupted-driverless-cars/>.

¹² *Driving change without a driver: How the driverless car will alter retail forever*, NPD, <https://www.npd.com/wps/portal/npd/us/news/tips-trends-takeaways/driving-change-without-a-driver-how-the-driverless-car-will-alter-retail-forever/> (Jul. 28, 2017).

¹³ *The Impact of Self-Driving Vehicles on Retail and Location Strategy*, Deloitte, <https://www2.deloitte.com/nl/nl/pages/consumer-industrial-products/articles/self-driving-cars-impact-retail-location-strategy.html#> (Jul. 29, 2017).

Eventually, when consumers can program their driverless cars to go to a destination and pick up food, assuming the restaurant/business has an employee to carry the food to the car, there is no longer a need to designated delivery people or services. A restaurant could also operate its own fleet of autonomous vehicles to deliver food to customers.

Drive-Thru Windows

Because consumers may send their cars out to pick up food for them, and are not behind the wheel of the vehicle, those chains who derive large revenues from drive-thru windows stand to take a hit as the number of driverless cars increases in the future.

Effect of Driverless Cars on the Retail Industry

Driverless cars could decrease the need to ship products to consumers, as consumers could simply send their automated vehicle to a retail store to pick up the desired item for them (assuming the store has an employee to bring the item to the car). They will also shorten delivery time, as retailers and consumers will no longer need to rely on an outside shipping service to deliver the goods. Retail and restaurant operators could also send their own autonomous vehicles to deliver items to consumers. Retailers could, as a result of driverless cars, see less walk-in traffic, which would reduce their potential overhead costs. Alternatively, retailers could introduce a new service by sending driverless cars to pick up customers or by sending purchased items directly to customers.

Driverless cars will allow consumers to travel greater distances without stopping, retail stores may attract consumers from further locations to visit them. This may also put pressure on stores to creatively be more distinctive and high quality so as to attract these far-away consumers. Retail stores in urban areas may no longer lose business as a result of potential customers being unable to find parking, as driverless cars could drop the costumers off and park elsewhere.

Effect of Driverless Cars on the Alcohol Industry¹⁴

The alcohol industry could see significant benefits from driverless cars, and this likely trickles down to restaurants that serve alcohol. Driverless cars largely take the risk of drunk driving out of the equation. However, this may raise new liability concerns. Intoxicated persons may still need to input destinations, and some automated vehicles may still require the driver to be engaged.

Effect of Driverless Cars on the Hotel Industry¹⁵

The proliferation of autonomous vehicles stands to reduce the number of customers who stay in a hotel or roadside motel for a single night while driving from one place to another. Such customers could instead sleep in their autonomous cars, which could continue to drive while the owner sleeps. As many restaurants and retailers operate in hotels, they too could take a hit as a result of the possible decrease in hotel customers.

¹⁴ Rachel Butt, *One industry could get a \$100 billion boost from the rise of driverless cars and car-sharing*, Business Insider (Aug. 1, 2016, 2:56 PM), <http://www.businessinsider.com/driverless-cars-and-alcohol-2016-8>

¹⁵ *Driverless Cars Will Disrupt 13 Surprising Sectors Other Than the Auto Industry*, Financial Review (Apr. 26, 2016, 10:49 AM), <http://www.afr.com/leadership/driverless-cars-will-disrupt-13-surprising-sectors-other-than-the-auto-industry-20160425-goe8ae>.

Liability and Insurance Concerns Specific to the Restaurant/Retail Industry^{16,17 18}

A plaintiff injured in an accident caused by an autonomous car would likely sue the driver/operator of the car and the manufacturer. The restaurant/retail business operating an autonomous car involved in such an accident could be exposed to liability. If a crash is caused by a human driver's overtly negligent misuse of the car (i.e. human driver controlling the speed and speeding, texting while operating the car), the human driver is likely negligent. If this is an employee of an entity, this would expose the entity to liability when the employee is in the course and scope of his employment.

Different Implications in Different Scenarios

If this conduct occurs while the vehicle is in autonomous mode, and the relevant state law allows the car to be operated while in autonomous mode, the operator (and therefore entity) may be absolved of liability, as liability likely shifts to the manufacturer.

However, if a restaurant/retail entity chooses to design and manufacture their own fleet of autonomous vehicles, they may face liability when a car in the fleet crashes while in autonomous mode if the crash is a result of a defect in the vehicle.

A restaurant/retailer that manufactures and designs its own fleet of autonomous vehicles may also be liable if a vehicle in the fleet is transporting a customer and gets into an accident

¹⁶ Orly Ravid, Comment, *Don't Sue Me, I Was Just Lawfully Texting & Drunk When My Autonomous Car Crashed Into You*, 44 Sw. L. Rev. 175, 190-91, 196 (2014).

¹⁷ Jeffrey R. Zohn, *When Robots Attack: How Should the Law Handle Self-Driving Cars That Cause Damages*, 2015 U. Ill. J.L. Tech. & Pol'y 461, 478 (2015)

¹⁸ Julia A. Molander and Yevgenia A. Wiener, *Facing Revolutionary Changes, Driverless Vehicles and the Effect on Insurance*, 58 No. 5 DRI For Def. 16 (2016).

How the Industry Is Adapting

All autonomous vehicles currently being designed are being designed to include an emergency override switch such that a human operator could activate the switch and take control of the car if the operator believes that an accident is inevitable.

If some negligence were to occur in this period when the operator takes over driving, the operator could be liable for any injuries caused if the operator is an employee of a restaurant/retailer, the restaurant/retailer could be liable in such an instance

However, given that the operator would be attempting to correct negligence that has already occurred, it is more likely that the manufacturer of the car would be liable in this instance, as the negligence leading to the accident would have occurred while the car was in autonomous mode.

Certain state regulations require that automobile manufacturers have sufficient insurance or self-insurance to cover all property damage and bodily injury arising from collisions or accidents caused by their HAVs, as a condition for obtaining a permit to deploy HAVs. These states have deemed a manufacturer to be any person or entity who modifies any vehicle by installing autonomous technology.

As such, any restaurant or retailer who modifies a vehicle by installing autonomous technology would want to ensure that they obtain the requisite insurance as determined by the state or states in which they operate.

Restaurants/retailers operating autonomous vehicles may also want to obtain the necessary cyber-insurance to protect themselves in the event of a privacy breach or malicious software attack, as such an attack could result in sensitive customer data being stolen.