



TESTIMONY OF JOHN M. SIMPSON

PRIVACY PROJECT DIRECTOR

CONSUMER WATCHDOG

ON

**“ORDINANCE TO BAN AUTONOMOUS VEHICLES
FROM CHICAGO’S STREETS, SECTION 9-76-240”**

SUBMITTED TO THE

**CITY COUNCIL’S JOINT COMMITTEE ON FINANCE
AND COMMITTEE ON TRANSPORTATION &
PUBLIC WAY**

AUG. 21, 2017

Introduction

Consumer Watchdog is a national nonpartisan, nonprofit public interest group dedicated to providing an effective voice for taxpayers and consumers in an era when special interests dominate public discourse, government and politics. We deploy an in-house team of public interest lawyers, policy experts, strategists, and grassroots activists to expose, confront, and change corporate and political injustice every day, saving Americans billions of dollars and improving countless lives. We have played a key role in the development California's autonomous vehicle regulations, working to bring transparency to the state testing program's reporting requirements, have testified at National Highway and Traffic Safety Administration proceedings involving AV vehicles, as well as offered testimony on the subject to Congress.

Chicago's Role in Regulating Self-Driving Autonomous Vehicles

Safety performance standards for autonomous vehicles should be set at the national level as is now the case with conventional motor vehicles through NHTSA's Federal Motor Vehicle Safety Standards (FMVSS). The problem faced today by the City of Chicago as outlined below is that the federal government has completely failed to meet that responsibility. No government authority is more familiar with the conditions and challenges posed by local road conditions and traffic patterns than municipal government. Chicago knows its unique road conditions and there is no better entity to deal with its challenges than City Council. While policymakers in Washington DC should – in fact, must – set nationwide safety standards for autonomous vehicles, they are in no position deal with their deployment on your city's roads. Council can best determine areas that pose special dangers, such as school zones and highways under construction; Washington bureaucrats cannot.

Consumer Watchdog agrees that so long as the federal government fails in its responsibility to protect all drivers, cyclists and pedestrians by setting appropriate FMVSS, the Chicago City Council should ban autonomous vehicles – robot cars – from being generally deployed on your streets. We do believe that with appropriate safeguards and oversight, including full transparency about companies' activities, testing of autonomous vehicles in Chicago could be allowed. If self-driving car companies want to use Chicago's public streets as their private laboratories, then they

have a responsibility to be completely transparent about what they are doing and to test according to rules that City Council sets.

Chicago's testing regulations should require that a self-driving vehicle being tested have a permit from the city. The testing rules should require a trained test driver, behind a steering wheel and brake pedal capable of assuming control should that become necessary. The testing company should be required to file public reports about any crash and to file "disengagement reports" explaining when the robot technology failed and the test driver had to take control. These regulations are similar to what's required under California's current testing regulations. They have not proved burdensome, nor hampered innovation; 37 companies have obtained permits to test their robot vehicles in the state. Consumer Watchdog urges that the disengagement reports be required quarterly, rather than annually and that in addition to crash reports, any video or technical details associated with a crash also be made public.

What Robot Cars Cannot do

As City Council formulates its regulations, it's important that Council understand the current state of autonomous vehicle technology. California's most recent disengagement reports are an excellent barometer. Disengagement reports from companies testing robot cars on California's public roads released last February by the Department of Motor Vehicles show the technology is not ready to be deployed without human drivers behind a steering wheel who can take control when the self-driving technology fails.

Eleven companies with permits to test robot cars in the state were required to file this year. Thirty-seven companies now hold permits for testing.

The report from Waymo, the new name of Google's autonomous vehicle unit, demonstrates the shortcomings. Its report showed the robot cars had problems dealing with others on the road, construction zones, and correctly perceiving their surroundings. In the past the company has said, for example, that its robot cars had difficulty correctly perceiving overhanging branches. There were also software glitches and times when the test driver took over because the robot car made an unwanted maneuver.

Waymo/Google's robot cars logged 635,868 miles on California's roads in self-driving mode during the 2016 reporting period, substantially more than any other company testing in the state. That compares with 414,331 miles in the 2015 reporting period. Waymo/Google said disengagements declined from 341 to 124, or 0.8 per 1,000 miles compared to 0.2 per 1,000 miles. Most of the disengagements – 112 – came on local streets, not highways or freeways.

Delphi reported its two test robot cars drove 3,125 miles in self-driving mode and had 178 disengagements. Reasons given for disengaging included: construction zones, lane changing in heavy traffic, emergency vehicles, poor lane markings, pedestrians, cyclists, failure to detect a traffic light and unexpected behavior from another driver.

Other companies with permits to test robot drove far fewer miles than Google/Waymo. Two companies with permits – Honda and Volkswagen – that would have been required to report, had they tested, said they did not. Here are the reports from nine other companies, besides Waymo/Google and Delphi cited above:

Ford reported three disengagements in 590 miles.

BMW reported 1 disengagement in 638 miles.

GM Cruise reported its robot cars drove 10,014.94 miles and had 284 disengagements.

Mercedes-Benz reported 336 disengagements in 673 miles.

Nissan reported 28 disengagements in 4,099 miles.

Tesla said it tested four vehicles in October and November totaling 550 miles in self-driving mode; its report listed 182 disengagements.

Bosch said its cars drove 980.8 miles and had 1,442 disengagements.

You can view the disengagement reports here:

https://www.dmv.ca.gov/portal/dmv/detail/vr/autonomous/disengagement_report_2016

Congress is Creating A Safety Void

City Council should understand what is happening – or perhaps better said what is not happening – with autonomous vehicle safety regulation at the national level. Self-driving autonomous vehicles operating without mandatory safety, security, privacy and ethical standards will pose unprecedented risks to the American public. No one disputes that the evolution of motor vehicle technology has the potential to prevent deaths, injuries and property damage. New technologies such as automatic emergency braking, lane keeping, collision warning, and assisted parking are already doing so, and indeed should be made standard equipment in all vehicles.

The point is that the gradual automation of driving will introduce a new set of risks. These risks will necessarily be far broader than those posed by vehicles today – suggesting that the ramifications for liability and insurance as well as safety regulation will be significant. A fully autonomous robot-based transportation system will likely reduce the number of crashes caused by human error, but that does not tell us anything about the overall impact of a fully autonomous system. Lost in the hyperbole over robot cars is a realistic assessment of the likely costs to both consumers and taxpayers particularly over the coming decades, when robot cars and human drivers will share a “hybrid highway.”

Rather than create the necessary regulations that would protect safety on our highways, Congress is rushing legislation that would leave a regulatory void without meaningful safety protections. FMVSS covering Highly Autonomous Vehicles (HAVs) are necessary and must be based on performance. Performance standards have the added benefit of spurring innovation as manufacturers strive to develop the most efficient way to meet the standard. The proposed legislation making its way through the House of Representatives does nothing to require or promote the development of such safety standards. Rather, the proposed bill would pre-empt the states from enacting any safety standards applying to HAVs.

A senate bill is expected to be introduced when Congress returns in September.

So far, the National Highway Traffic Safety Administration (NHTSA) has unconscionably abdicated its responsibility to enact FMVSS covering HAVs. To fill the void some states are stepping up to protect their citizens and moving to promulgate necessary safety regulations. Congress's pre-empting the states' ability to fill the void left by federal inaction leaves us at the mercy of manufacturers as they use our public highways as their private laboratories however they wish with no safety protections at all.

When the federal government finally assumes its responsibility to enact FMVSS covering HAVs state safety standards would under current law be pre-empted. The proposed pre-emption in the draft bill is not about standardizing safety rules across the nation. Rather, it's about leaving no rules to cover developers and manufacturers as they rush robot cars on to our highways. When the federal government finally meets its obligation and acts, state standards will be gone. There will be no "patch-work" of competing and possibly contradictory regulations that some warn about.

NHTSA must not enact design standards that would in effect leave the impression that the agency deems a particular technology "reasonably safe." Our legal system has traditionally helped ensure that manufacturers are liable for any defects for which they are responsible. What NHTSA must do – and any legislation must require – is that NHTSA enact performance-based safety standards that cover autonomous vehicle technologies.

And, Consumer Watchdog believes what municipalities like Chicago must do to protect their citizens is block the general deployment of HAVs on their streets and highways until NHTSA acts.

More Federal Resources Necessary

With the increasing development of lifesaving autonomous technologies and the ultimate deployment of HAVs the demands on NHTSA will only increase. Today 95 percent of transportation fatalities and 99 percent of transportation injuries involve vehicles on our roads. Unbelievably, NHTSA receives only 1 percent of the federal Department of Transportation's

budget. In the face of the greater challenges HAVs pose, NHTSA must have more staff with more technical expertise and funding. Consumer Watchdog believes City Council should urge Congress to provide more funding for NHTSA.

Principles for Autonomous Vehicle Policy

The next few years will feature complex interactions between people, computers, cars and public streets and freeways, during which today's liability protections and rules restraining insurance rates and unfair practices by insurance companies will become especially important. To deal with the challenge posed by autonomous vehicle technology, Consumer Watchdog believes six principles must be adopted, many of them at the national level. The principles are:

1. **Protect the civil justice system.** The state-based civil justice system – open courts, impartial judges and citizen juries – is fully equipped to handle the determination of legal responsibility as our transportation system evolves over the coming decades. Disputes over who is at fault in a crash involving a self-driving car or truck will require the full power of civil justice system, with its procedural safeguards of an impartial judge, full public transparency, and trial by citizen juries, to investigate and publicly expose the cause of crashes, compensate the victims for deaths, injuries and property damage, punish the wrongdoer, and force manufacturers to make changes in their products to prevent future harm. When their autonomous technologies fail, hardware and software manufacturers must be held strictly liable. Lawmakers should reject legislation to limit or restrict state consumer protection laws. Manufacturers must not be permitted to evade these consumer protections by inserting arbitration clauses, “hold harmless” provisions or other waivers in their contracts.

2. **Enact stronger state consumer protections against insurance company abuses.** According to a 2013 report by the Consumer Federation of America, “California stands out from all other states in having the best insurance regulatory system for protecting consumers.” Enacted by California voters in 1988, California’s insurance reform law provides precisely the stronger protections consumers will require in the era of robot vehicles. The reforms, known as Proposition 103, have protected motorists (along with homeowners, renters, businesses and medical providers) against unjust insurance rates (including product liability insurance rates) and

anti-consumer and discriminatory practices. The law's emphasis on rewarding drivers with lower insurance premiums based on their safety record, their annual mileage, their driving experience, and other rating factors within their control that are "substantially related to the risk of loss," will be critical in the new automotive era. Proposition 103's mandate for public disclosure and public participation in regulatory matters are essential components of a system that will be trusted by consumers.

3. Enact auto safety standards. Private companies cannot be trusted to develop and deploy robot cars and trucks without rules. The federal auto safety agency or other relevant federal agencies, or in their absence, state auto safety agencies, must develop standards for the testing and deployment of the multiple technologies required by robot vehicles. These standards must address safety, security, privacy and the software that determines the robot's actions in the event of an impending collision and as it makes life and death decisions. They must be enforceable by consumers in courts of law.

4. Stronger laws are needed to protect consumers' privacy. The laws have not kept pace with the evolution of technology and the collection and monetization of consumers' personal data. Hardware and software manufacturers and insurance companies must be barred from utilizing tracking, sensor or communications data, or transferring it to third parties for commercial gain, absent separate written consent (which should not be required as a condition of accessing the services of the vehicle/manufacturer, and which should be revocable by the consumer at any time).

5. Bar federal interference in state consumer protection laws. Neither Congress nor federal agencies should be permitted to preempt or override stronger state based civil justice, insurance reform or auto safety laws.

6. Respect democratic and human values. The sponsors of self-driving vehicles have promoted the myth that machines are infallible in order to justify the wholesale departure from a panoply of norms that form founding principles for the nation, beginning with the rule of law, individual and corporate responsibility, long held legal principles that distinguish between human beings

and property, and the transparency of public officials and institutions that is a hallmark of democracy. The strategy of substituting robot values for human values has reached its apotheosis in the determination by robot car company executives to program computers to make life and death decisions, and to keep that decision-making process secret. Lawmakers will need to impose the rule of law and other attributes of American democracy upon the executives of the hardware and software companies that manufacture self-driving cars.

Conclusion

Chicago must not succumb to the siren song of the autonomous car developers who are over promising what autonomous vehicle technology can do today. You should act to protect your citizens and ban the general deployment of autonomous vehicles from Chicago's streets until enforceable FMVSS covering autonomous vehicles are in place. We call on you to push for the development of enforceable federal safety performance standards. Consumer Watchdog believes Chicago can safely issue permits and allow testing of autonomous vehicles, so long as there is a test driver who can take over and there is complete transparency about the test programs. Responsible regulation goes hand-in-hand with innovation. Voluntary "standards" in the auto industry have repeatedly been proven to be weak and insufficient. Safety must come before the automakers' bottom lines. Consumer Watchdog calls on you to block the deployment of AVs until NHTSA enacts the necessary regulations to protect the safety of our highways and Congress gives the agency the necessary resources to do so.