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## SPLITTING THE BILL: CREATING A NATIONAL CAR INSURANCE FUND TO PAY FOR ACCIDENTS IN AUTONOMOUS VEHICLES

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**ABSTRACT**—While self-driving cars may seem like something that can exist only in a futuristic movie, the technology is developing rapidly, and many states already allow test runs of self-driving cars on state roads. Many car companies have announced that they will make self-driving cars available as early as 2020. However, several manufacturers of the self-driving car technology predict that personal ownership of vehicles will be replaced by a car-sharing system, where companies own the self-driving cars and rent them to consumers who pay per use. With more widespread introduction of this technology comes many questions about how to assess liability for accidents involving self-driving cars, and how insurance should be structured to pay for those accidents. This Note discusses the potential parties who could be held liable: drivers, car-sharing companies, and manufacturers. This Comment suggests the elimination of liability for any accidents involving self-driving cars, and recommends the creation of a National Insurance Fund to pay for all damages resulting from those accidents.

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### INTRODUCTION

Self-driving cars may seem like something straight out of a sci-fi movie. But as death rates from car accidents remain high, more and more car companies are developing self-driving cars in an attempt to increase safety in driving. In 2011, 29,867 fatal motor vehicle crashes in the United States resulted in 32,479 deaths.<sup>1</sup> Roughly 15 of every 100,000 licensed drivers died in a car accident in 2011.<sup>2</sup> Some form of human error causes approximately 95% of all car accidents.<sup>3</sup> In an effort to reduce accidents, automobile companies are inventing new technologies that increasingly automate driving. These technologies include collision-mitigating braking

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<sup>1</sup> Nat'l Highway Traffic Safety Admin., *Fatality Analysis Reporting System (FARS) Encyclopedia*, NCSA DATA RESOURCE WEBSITE, <http://www-fars.nhtsa.dot.gov/Main/index.aspx> [hereinafter FARS Encyclopedia] [<http://perma.cc/33KF-QBDQ>].

<sup>2</sup> *Id.*

<sup>3</sup> NAT'L HIGHWAY TRAFFIC SAFETY ADMIN., U.S. DEP'T OF TRANSP., DOT HS 811 059, NATIONAL MOTOR VEHICLE CRASH CAUSATION SURVEY: REPORT TO CONGRESS 23–26 (2008) [hereinafter NMVCCS Report], available at <http://www-nrd.nhtsa.dot.gov/Pubs/811059.PDF> [<http://perma.cc/8N3H-5T64>].

systems and lane-keeping systems, which temporarily take control away from humans to rectify human errors and prevent accidents.<sup>4</sup>

Some companies are beginning to create fully autonomous vehicles (AVs). These cars are completely automated and rely very minimally on humans for their operation. Google is at the forefront of creating AVs, but many large car companies are also planning to incorporate AVs into their fleets within the next decade.<sup>5</sup> Google touts these AVs as having the potential to almost entirely eliminate human error, reducing automobile accidents by 90%.<sup>6</sup>

Regardless of the extent to which automobile accidents will decline overall as more AVs replace human-operated cars, the use of AVs will, at a minimum, decrease the percentage of accidents caused by humans while increasing the percentage of accidents caused by product defects and malfunctions. In the current system, approximately 94% of accidents are caused by human error and less than 6% are caused by product defects,<sup>7</sup> but, in a new system dominated by AVs, those numbers are likely to reverse.<sup>8</sup>

One prediction is that private car ownership will be replaced by extensive car-sharing and carpooling in AVs due to the cost of private ownership of AVs.<sup>9</sup> Car-sharing companies will own a fleet of AVs that people can rent as they need and can pay for based on the amount of usage—resembling Zipcar, only on a larger scale.<sup>10</sup> People would send in a

<sup>4</sup> Julie Goodrich, Comment, *Driving Miss Daisy: An Autonomous Chauffeur System*, 51 HOUS. L. REV. 265, 269–70 (2013).

<sup>5</sup> Will Knight, *Driverless Cars Are Further Away Than You Think*, MIT TECH. REV. (Oct. 22, 2013), <http://www.technologyreview.com/featuredstory/520431/driverless-cars-are-further-away-than-you-think/> [<http://perma.cc/7RUW-ZJFL>]; Damon Lavrinc, *Nissan Promises to Deliver Autonomous Car by 2020*, WIRED (Aug. 27, 2013, 2:07 PM), <http://www.wired.com/2013/08/nissan-autonomous-drive/> [<http://perma.cc/E93D-NBBF>].

<sup>6</sup> Chunka Mui, *Fasten Your Seatbelts: Google's Driverless Car is Worth Trillions (Part 1)*, FORBES (Jan. 22, 2013, 10:12 AM), <http://www.forbes.com/sites/chunkamui/2013/01/22/fasten-your-seatbelts-googles-driverless-car-is-worth-trillions/> [<http://perma.cc/W8P7-DR2U>].

<sup>7</sup> Percentages were calculated using data from NMVCCS Report, *supra* note 3, at 24–26. Table 9(a) lists accidents that were caused by human error, which totaled 5096. The twenty-four accidents caused by “glare” from Table 9(c) were added to that total because glare only causes accidents by impairing human vision—a problem that would be solved by driverless vehicles—giving us a total of 5120 accidents caused by humans. This number was divided by the total number of accidents in the study, which was 5471, giving us 93.6% (rounded to 94% for simplicity) caused by human error and leaving us with 6.4% (rounded to 6% for simplicity) caused by product defects and other factors.

<sup>8</sup> See Gary E. Marchant & Rachel A. Lindor, *The Coming Collision Between Autonomous Vehicles and the Liability System*, 52 SANTA CLARA L. REV. 1321, 1326 (2012).

<sup>9</sup> Todd Wilms, *Google Driverless Car: Why You Will Probably Never Own One*, FORBES (Oct. 23, 2013, 12:45 AM), <http://www.forbes.com/sites/sap/2013/10/23/google-driverless-car-why-you-will-probably-never-own-one/> [<http://perma.cc/R4YA-CUWS>].

<sup>10</sup> *Id.*

request with their location, their destination, and the time they need to arrive at their destination.<sup>11</sup> The company would coordinate large-scale carpooling with others who have similar requests. This will further reduce the number of drivers on the road, which in turn will reduce accidents.

The overall number of accidents should decline as more AVs enter the roads. However, there will still be traffic accidents, and the current civil liability and automobile insurance systems are not designed to deal with the changes that AVs will present.<sup>12</sup> Much has been written about how to change the liability and insurance systems to respond to accidents in privately owned AVs.<sup>13</sup> This Note instead addresses how the legal system and automobile insurance framework will need to change to address accidents when car-sharing and carpooling in AVs owned by a third-party company is the norm. This Note assumes that car-sharing will be widespread, but, even small-scale car-sharing will create similar legal issues. This Note also assumes near universal AV use and largely does not address issues that will arise during the transition period from human-operated cars to AVs.

Part I discusses the current causes of automobile accidents and how an increase in AV use will change which causes predominate. Part I also briefly describes the technology behind AVs. Part II outlines how automobile accidents are currently addressed by civil lawsuits and describes the current state of automobile insurance policies. It also discusses how accidents in Zipcars and rental cars are currently managed. Part III shows several possible ways that accidents in AVs could be addressed and the drawbacks of each. These ways include the riders, the company that owns the car, or the manufacturer of the car paying for damages.

Part IV suggests a creative solution that evenly spreads the burden among the various actors mentioned in Part III. It recommends setting up a national fund run by the National Highway Traffic and Safety Administration into which each actor pays a monthly tax. When accidents occur, injured riders can file claims for medical expenses, and the car-

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<sup>11</sup> *Id.*

<sup>12</sup> See Marchant & Lindor, *supra* note 8, at 1327–28.

<sup>13</sup> See, e.g., NIDHI KALRA ET AL., STATE OF CAL. DEP'T OF TRANSP., FHWA/CA/TL-CA09-1664, LIABILITY AND REGULATION OF AUTONOMOUS VEHICLE TECHNOLOGIES (2009), available at [http://www.dot.ca.gov/newtech/researchreports/reports/2009/prr-2009-28\\_liability\\_reg\\_&\\_auto\\_vehicle\\_final\\_report\\_2009.pdf](http://www.dot.ca.gov/newtech/researchreports/reports/2009/prr-2009-28_liability_reg_&_auto_vehicle_final_report_2009.pdf) [<http://perma.cc/QS47-Q5M5>]; Sophia H. Duffy & Jamie Patrick Hopkins, *Sit, Stay, Drive: The Future of Autonomous Car Liability*, 16 SMU SCI. & TECH. L. REV. 453 (2013); Andrew P. Garza, “Look Ma, No Hands!”: *Wrinkles and Wrecks in the Age of Autonomous Vehicles*, 46 NEW ENG. L. REV. 581 (2012); Marchant & Lindor, *supra* note 8, at 1327–28; Goodrich, *supra* note 4.

sharing companies can file claims for property damages. The system would operate similarly to current governmental funds like Medicare and Social Security, where the government organizes payments as needed and resolves disputed claims through preestablished mechanisms. This Note concludes by suggesting that the federal government begin to consider how to address the changes that AVs will necessitate, so that these safer cars can enter the market as soon as manufacturers are ready to sell them.

## I. THE CURRENT STATE OF CAR CRASHES AND THE ARRIVAL OF NEW TECHNOLOGY

### A. *Current Statistics for Automobile Accidents*

Automobile accidents are one of the leading causes of death in the United States and are the leading cause of death for teenagers in the United States.<sup>14</sup> Advances in safety have cut down on the number of accidents, as well as the number of fatalities and injuries from these accidents. For example, 37,526 fatal crashes happened in the United States in the year 2000, and 41,945 people died as a result of those crashes.<sup>15</sup> Those numbers dropped by more than 20% by the year 2011.<sup>16</sup> However, even with these reductions, very large numbers of accidents still occur each year, with estimates around 10.8 million accidents in the United States in 2009.<sup>17</sup>

The overwhelming majority of accidents result from human error. The National Highway Traffic and Safety Administration (NHTSA) conducted the National Motor Vehicle Crash Causation Survey (NMVCCS), which looked at a sample of 5471 automobile crashes in a two-and-a-half-year period between July 2005 and December 2007.<sup>18</sup> Of those 5471 crashes, 93% were caused by human error, and only 2% were caused by a product defect.<sup>19</sup> In addition, in some instances roadway conditions caused a human to err in driving and crash, which raises the number of human-caused crashes even higher.<sup>20</sup>

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<sup>14</sup> *Teen Drivers Fact Sheet*, CENTER FOR DISEASE CONTROL & PREVENTION, [http://www.cdc.gov/motorvehiclesafety/teen\\_drivers/teendrivers\\_factsheet.html](http://www.cdc.gov/motorvehiclesafety/teen_drivers/teendrivers_factsheet.html) [<http://perma.cc/GB9Z-7ZVE>].

<sup>15</sup> FARS Encyclopedia, *supra* note 1.

<sup>16</sup> In 2011, there were 29,867 fatal crashes and 32,479 deaths. *Id.*

<sup>17</sup> U.S. CENSUS BUREAU, STATISTICAL ABSTRACT OF THE UNITED STATES: 2012, at 693 (2012), available at <http://www.census.gov/prod/2011pubs/12statab/trans.pdf> [<http://perma.cc/JD7E-MF2G>].

<sup>18</sup> NMVCCS Report, *supra* note 3, at 4.

<sup>19</sup> 5096 crashes were attributed to human error, 135 to roadway and atmospheric conditions, 130 to the vehicle itself, and 110 did not have an easily determinable cause. *Id.* at 25–26.

<sup>20</sup> These conditions include glare or obstacles blocking a driver's view. *Id.* at 26.

The types of human error that cause automobile accidents vary. In the NMVCCS crashes, 41% of accidents caused by human error resulted from “recognition errors.”<sup>21</sup> “Decision errors” resulted in 34% of human-caused crashes.<sup>22</sup> Another 10% of human-caused crashes resulted from performance errors such as overcompensation and poor directional control.<sup>23</sup> Finally, 7% of human-caused crashes resulted from nonperformance errors, like falling asleep at the wheel or having a heart attack.<sup>24</sup>

For the 2% of crashes attributed to the vehicle, the NMVCCS did not address how many were due in part or in full to poor maintenance, vehicle misuse by the owner, or both.<sup>25</sup> Vehicle problems can come from either an inherent product defect or from improper use or care by the owner, so some of the vehicle defects can themselves be attributed to human error. Thus, having humans operate automobiles is the leading cause for 93% of accidents.

### B. *How Autonomous Vehicles Work*

Autonomous Vehicles (AVs) will take control of automobiles almost entirely out of the hands of the human driver. A person will need to tell the car’s system where to go, but after that, he can completely relinquish control to the car.<sup>26</sup> The car will do everything that a human operator would need to do to get from point A to point B.<sup>27</sup>

Sebastian Thrun, one of the lead developers of Google’s self-driving car, predicted that replacing all current cars with AVs would reduce traffic accidents by 90%.<sup>28</sup> Based on the NMVCCS’s estimate that crashes are caused 93% of the time by human error, Thrun’s prediction does not seem that outlandish. Many of the human causes of accidents that the NMVCCS outlined will disappear when an AV is used. In particular, human deficiencies in vision and reaction time are eliminated by the new

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<sup>21</sup> Recognition errors include things like inadequate surveillance—meaning not looking where a driver is going—and internal distractions, such as cell phones. *Id.* at 24.

<sup>22</sup> These include going too fast, misjudging distances between cars, making illegal maneuvers, and aggressive driving. *Id.*

<sup>23</sup> *Id.*

<sup>24</sup> *Id.* at 24–25.

<sup>25</sup> *Id.* at 25–26.

<sup>26</sup> See Erico Guizzo, *How Google’s Self-Driving Car Works*, IEEE SPECTRUM (Oct. 18, 2011, 9:00 AM), <http://spectrum.ieee.org/automaton/robotics/artificial-intelligence/how-google-self-driving-car-works> [<http://perma.cc/W73A-VESZ>].

<sup>27</sup> For a demonstration of all the tasks the AV can do, see Google, *Self-Driving Car Test: Steve Mahan*, YOUTUBE (Mar. 28, 2012), <http://www.youtube.com/watch?v=cdgQpa1pUUE&noredirect=1> [<http://perma.cc/Z5X7-QHK7>].

<sup>28</sup> Mui, *supra* note 6.

technology.<sup>29</sup> The AVs use sensors, cameras, and a laser range finder, along with compiled data to have a much more detailed and accurate picture of their surroundings in real time than a person possibly could.<sup>30</sup>

Additionally, AVs will share data with each other in real time, so the cars will have better knowledge of dangerous situations than humans do. For example, once one AV crosses over a patch of black ice and makes note of it, all other AVs connected to the same data will become aware in advance that a certain area of road is dangerous.<sup>31</sup> This will allow AVs to either avoid those areas or proceed much more cautiously than would a person.

AV technology is expensive, so some have predicted that large-scale car-sharing and carpooling in AVs will replace private ownership as a less expensive travel option.<sup>32</sup> The system would be a combination of the car-sharing aspects of Zipcar,<sup>33</sup> the car-on-demand nature of Uber,<sup>34</sup> and the ride-sharing programs that currently exist in many large cities.<sup>35</sup> A company would own a fleet of AVs, people would register online to become members (as with Zipcar or Uber),<sup>36</sup> and a car would arrive at the time and place a user designates.<sup>37</sup> Like Zipcar, it would be a pay-per-use system and would likely be less expensive than ownership of AVs, which thus far have been priced at several hundred thousand dollars.<sup>38</sup>

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<sup>29</sup> For a full description of the sensors and other technology the AV uses, see Guizzo, *supra* note 26.

<sup>30</sup> *Id.*

<sup>31</sup> See Sebastian Thrun, *Leave the Driving to the Car, and Reap Benefits in Safety and Mobility*, N.Y. TIMES, Dec. 6, 2011, at D4.

<sup>32</sup> See, e.g., Emily Badger, *What Will Happen to Public Transit in a World Full of Autonomous Cars?*, ATLANTIC CITYLAB (Jan. 17, 2014), <http://www.theatlanticcities.com/commute/2014/01/what-will-happen-public-transit-world-full-autonomous-cars/8131/> [<http://perma.cc/R8X7-YPDJ>]; Wilms, *supra* note 9.

<sup>33</sup> ZIPCAR, <http://www.zipcar.com/> [<http://perma.cc/KL5U-MG2V>] (detailing how Zipcar owns cars that it leaves parked around a city for members to pay to use as needed).

<sup>34</sup> UBER, <https://www.uber.com/> [<http://perma.cc/C83G-2JW4>] (describing the Uber on-demand taxi service, which allows members to make a request using a smartphone app for a taxi that arrives shortly thereafter at the designated location).

<sup>35</sup> E.g., Seth Kugel, *Calling Shotgun: Ride-Share Services*, N.Y. TIMES, Sept. 22, 2013, at TR4; Mark Berman, *SideCar, a New Ride-Sharing Service, Arrives in D.C.*, WASH. POST (Mar. 22, 2013), <http://www.washingtonpost.com/blogs/dr-gridlock/wp/2013/03/22/sidecar-a-new-ride-sharing-service-arrives-in-d-c/> [<http://perma.cc/3ZW9-NVU9>].

<sup>36</sup> See Wilms, *supra* note 9.

<sup>37</sup> See *id.*

<sup>38</sup> See Ashley Hasley III, *Driverless Cars: 15 Things You Need to Know*, WASH. POST (Aug. 25, 2014), [http://www.washingtonpost.com/local/trafficandcommuting/driverless-cars-15-things-you-need-to-know/2014/08/25/786c6fbc-d79b-11e3-95d3-3bcd77cd4e11\\_story.html](http://www.washingtonpost.com/local/trafficandcommuting/driverless-cars-15-things-you-need-to-know/2014/08/25/786c6fbc-d79b-11e3-95d3-3bcd77cd4e11_story.html) [<http://perma.cc/3EA3-CP7P>]; Wilms, *supra* note 9.

Additionally, the car-sharing system would be coupled with carpooling to reduce the overall number of cars needed. The car-sharing company would coordinate carpooling by finding requests from people in similar locations needing to go to similar destinations around the same time.<sup>39</sup> The ride sharing that is currently coordinated by neighbors would be computerized to find the most efficient carpooling options.<sup>40</sup> Google aspires to decrease the number of cars on the road by as much as 90%, and this aspiration could prove true if car-sharing coupled with carpooling becomes the norm.<sup>41</sup> Such a dramatic decline in the number of cars on the road would cause a significant decline in accidents.<sup>42</sup>

There will still be accidents even if AVs are the only cars on the road. The technology can never be perfect and—as anyone with a computer knows—technology can sometimes crash or malfunction. The legal system will need to adapt to provide avenues for those injured in accidents to seek relief from whoever is responsible, whether it is the driver, the manufacturer, or someone else.

## II. THE CURRENT LIABILITY AND INSURANCE SYSTEMS AS THEY RELATE TO AUTOMOBILE ACCIDENTS

Both the current legal framework for determining civil liability for accidents and the insurance framework for paying for accidents evolved over time to respond to the realities of car accidents—namely that one of the human drivers in the accident is likely at fault. The current systems are efficient because the party most likely at fault for the accident (a human operator) is the one who is initially sued and who pays for insurance.<sup>43</sup> For accidents involving cars not owned by the at-fault driver, the situation is very similar because the person in control of preventing the accident is still the driver, not the owner.<sup>44</sup> As will be discussed in Part III, if car-sharing of AVs becomes the norm and the causes of automobile accidents shift away from human error, holding liable the people sitting in the car is no longer clearly the best option. Instead, car-sharing companies and manufacturers should hold some liability.

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<sup>39</sup> This is how SideCar already organizes ride sharing. See Berman, *supra* note 35.

<sup>40</sup> *Id.*

<sup>41</sup> See Mui, *supra* note 6.

<sup>42</sup> Though fatal accidents are more likely on emptier roads, more accidents occur overall in areas with the highest population densities. *Where Car Accidents Happen Most*, ESURANCE, <http://www.esurance.com/claims-info/accident-info/where-accidents-happen-most> [http://perma.cc/89L9-66MP].

<sup>43</sup> See KALRA ET AL., *supra* note 13, at 18.

<sup>44</sup> The Graves Amendment shields the owner from liability. 49 U.S.C. § 30106 (2012).



### A. *The Current Automobile Accident Liability System*

After an accident occurs, there are several ways the parties involved could allocate cost. The drivers could agree on both who is at fault and how much that person should compensate the other for the damages without litigation. The drivers determine fault and damages and either use their insurance coverage to pay the costs or pay out of pocket.<sup>45</sup> Some states have passed legislation barring people from commencing personal injury suits where the damages are below a certain level.<sup>46</sup> This “no-fault system” requires that a threshold level of damages be met; otherwise neither party is declared to be at fault, and each party is responsible for its own damages.<sup>47</sup> Because fault is not established in these cases, the parties usually rely on their first-party insurance to cover their damages.<sup>48</sup>

However, the majority of states do not have a no-fault system,<sup>49</sup> so when there is a dispute, drivers can initiate legal proceedings to resolve it. One driver alleges that the negligent actions of the other driver caused damages.<sup>50</sup> This occurs because “[i]n the vast majority of crashes, we ascribe blame to one or more drivers rather than to design features of the car.”<sup>51</sup>

To prove the defendant’s negligence, the plaintiff needs to show a breach of the duty of care and proximate causation between that breach and the plaintiff’s damages.<sup>52</sup> In some cases, both drivers are at least somewhat negligent.<sup>53</sup> After determining fault, the finder of fact also must decide the amount of damages.<sup>54</sup> Personal injury cases are the most common cases that arise from automobile accidents because, as shown above, human error is overwhelmingly the primary cause of accidents, and therefore, who was negligent and how much the party owes are the two main questions that arise in a human-caused accident.

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<sup>45</sup> Cf. KALRA ET AL., *supra* note 13, at 18.

<sup>46</sup> See, e.g., KAN. STAT. ANN. § 40-3117 (2013); N.Y. INS. LAW §§ 5102, 5104 (Consol. 2013).

<sup>47</sup> See KENNETH S. ABRAHAM, *INSURANCE LAW AND REGULATION: CASES AND MATERIALS* 662 (Foundation Press, 4th ed. 2005); KALRA ET AL., *supra* note 13, at 18–19.

<sup>48</sup> See ABRAHAM, *supra* note 47, at 725.

<sup>49</sup> *Id.* at 726.

<sup>50</sup> See KALRA ET AL., *supra* note 13, at 20.

<sup>51</sup> *Id.*

<sup>52</sup> 4-12 LOUIS R. FRUMER & MELVIN I. FRIEDMAN, *PERSONAL INJURY: ACTIONS, DEFENSES, DAMAGES* § 12.01 (Matthew Bender, rev. ed. 2014).

<sup>53</sup> See JAMES M. ANDERSON ET AL., *RAND INST. FOR CIVIL JUSTICE, THE U.S. EXPERIENCE WITH NO-FAULT AUTOMOBILE INSURANCE: A RETROSPECTIVE* 9 (2010).

<sup>54</sup> 4-12 FRUMER & FRIEDMAN, *supra* note 52, § 12.72; see also *Sanchez v. King*, 932 S.W.2d 177, 180–82 (Tex. App. 1996) (discussing the doctor’s testimony and medical records the jury used to assess damages).

In car accidents that result from a car defect, the driver can either join the manufacturer of the car as a party to the accident's lawsuit, or sue the manufacturer after the first personal injury suit to recover the money the defendant paid to the plaintiff in damages.<sup>55</sup> In these cases, the driver claiming a defect must prove two things: (1) that a defect existed that caused the accident;<sup>56</sup> and (2) that the driver did not know about the defect and that there was no improper care or use of the vehicle that led to the defect.<sup>57</sup> Currently, successful product defect cases related to car accidents are fairly rare in part because it is unlikely that a defect, rather than a human, caused the accident.

When an accident involves a car that the driver does not own, the legal system treats it largely the same. The driver, and not the rental or car-sharing company, is still held liable for negligence. Congress passed the Graves Amendment for the purpose of shielding rental car companies from liability.<sup>58</sup> Owners are not liable unless they commit negligence or criminal wrongdoing that causes the accident.<sup>59</sup> The Graves Amendment also covers car-sharing companies, such as Zipcar.<sup>60</sup> The Amendment recognizes that the company that owns the car is not as able to avoid accidents as the driver, and likely was not the cause of the accident, and thus should not be held liable.

The current legal system logically aligns with the cause of most accidents: human error. The expense of maintaining the suit rests on the two drivers, one of whom is likely at fault and is going to be responsible in the end for paying damages. Similarly, the burdens are correctly placed on the drivers to show that their accident is one of the rare cases where a

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<sup>55</sup> See *Gen. Motors Corp. v. Moseley*, 447 S.E.2d 302, 305–06 (Ga. Ct. App. 1994) (describing how plaintiff sued General Motors for the defect that led their gas tank to explode during an accident), *abrogated by Webster v. Boyett*, 496 S.E.2d 459 (Ga. 1998).

<sup>56</sup> See, e.g., *Jarvis v. Ford Motor Co.*, 283 F.3d 33, 43–44 (2d Cir. 2002); *Holloway v. Gen. Motors Corp., Chevrolet Div.*, 250 N.W.2d 736, 738 (Mich. 1977) (stating that without evidence showing design defect or improper assembly, a directed verdict for the manufacturer should be affirmed), *rev'd on reh'g*, 271 N.W.2d 777 (Mich. 1978).

<sup>57</sup> See 4–12 FRUMER & FRIEDMAN, *supra* note 52, § 12.31; see also *Jarvis*, 283 F.3d at 40 (describing defendant's evidence both of the driver's failure to inspect the brakes and that there was no defect); *Holloway*, 250 N.W.2d at 739–40.

<sup>58</sup> 49 U.S.C. § 30106 (2012) (“An owner of a motor vehicle that rents or leases the vehicle to a person (or an affiliate of the owner) shall not be liable under the law of any State or political subdivision thereof, by reason of being the owner of the vehicle (or an affiliate of the owner), for harm to persons or property that results or arises out of the use, operation, or possession of the vehicle during the period of the rental or lease . . .”).

<sup>59</sup> See *Carton v. Gen. Motors Acceptance Corp.*, 611 F.3d 451, 457 (8th Cir. 2010) (explaining that owners of leased vehicles are only liable for negligent or criminal failure to maintain the car).

<sup>60</sup> *Moreau v. Josaphat*, 975 N.Y.S.2d 851, 857 (N.Y. Sup. Ct. 2013); *Minto v. Zipcar N.Y., Inc.*, No. 15401/09 (N.Y. Sup. Ct. Mar. 17, 2010).

manufacturing defect exists, as opposed to forcing the manufacturer to prove in every case that the accident is not one of the rare instances of defect.

### B. *The Current Automobile Insurance System*

Automobile insurance law and insurance policies also function in ways that reflect the reality of car-accident causes. All states have legislation requiring automobile insurance be purchased, and most states require liability insurance as opposed to first-party insurance.<sup>61</sup> Almost all insurance policies, however, include some amount of first-party insurance coverage along with liability insurance coverage. There are multiple types of first-party insurance: collision coverage for property damages,<sup>62</sup> MedPay coverage for medical expenses,<sup>63</sup> and Uninsured Motorist insurance.<sup>64</sup> The liability insurance coverage pays for damages to someone else's person or property when the insured is at fault for an accident.

As mentioned above, some states have created no-fault systems for automobile accidents. A no-fault system changes the normal tort liability system in two ways: (1) by setting thresholds of seriousness for damages that must be met before a person can bring a personal injury suit for an accident; and (2) by using first-party personal injury protection (PIP) insurance instead of liability insurance to cover the cost of damages in any accident where a suit is barred.<sup>65</sup> In no-fault systems, the state requires each driver to carry a certain amount of PIP insurance to cover their damages.<sup>66</sup>

Some scholars have suggested that an entirely no-fault system where all drivers have first-party insurance coverage and pay for their own damages might adequately deal with the introduction of AVs to the road.<sup>67</sup> It is important to understand the reasons that states have been reluctant to institute a no-fault system to comprehend why no-fault may also not be supported as a way to address AV accidents.

The main reason states have not adopted a no-fault system is because it places strict liability on the victim for the accident. Many argue that

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<sup>61</sup> ABRAHAM, *supra* note 47, at 662; *see, e.g.*, ARIZ. REV. STAT. ANN. § 28-4009 (2014). *But see* TEX. INS. CODE § 1952.152 (2013) (requiring motor vehicle insurance policies to provide first-party personal injury protection unless the insured objects in writing).

<sup>62</sup> ABRAHAM, *supra* note 47, at 697.

<sup>63</sup> MARSHALL S. SHAPO & RICHARD J. PELTZ, TORT AND INJURY LAW 842 (Carolina Academic Press, 3d ed. 2006).

<sup>64</sup> *Id.*

<sup>65</sup> ABRAHAM, *supra* note 47, at 725.

<sup>66</sup> *Id.*

<sup>67</sup> *See* KALRA ET AL., *supra* note 13, at 21.

placing strict liability on victims, as opposed to punishing the at-fault driver, will incentivize drivers to be more reckless because they are not on the hook for paying for damages caused by their actions.<sup>68</sup> This concern does not carry over to a no-fault system for AVs because the passengers do not “operate” the car and, therefore, cannot operate it recklessly. Another argument against no-fault is that having strict liability for victims runs counter to ideas of fairness and corrective justice: that the person who caused an accident and damages should be held responsible so that the victim can be made whole again, and the negligent actions can be deterred in the future.<sup>69</sup> If no-fault systems were used to resolve accidents involving AVs, this fairness concern would still exist.

One difference that a rented or shared car creates in accidents is who holds the insurance. Rental companies and car-sharing companies carry minimum levels of liability and first-party insurance for their cars so that uninsured renters have some coverage.<sup>70</sup> This coverage, however, is often insufficient to pay for all damages, so drivers have to cover the remaining cost.<sup>71</sup> As the number of car-sharing companies and the use of shared AVs increase, so too will the number of accidents that involve a car owned by someone other than the passengers within. The system will have to adapt to address this change.

The current requirement that car owners purchase mandatory liability insurance is sensible because it insures that victims are compensated and drivers are not bankrupted by accidents. However, if AVs reduce accidents to a minimum and if liability for those accidents shifts away from drivers to other parties, new forms of car insurance will be needed. Part IV discusses a National Car Insurance Fund as one way to share the cost of damages among all involved parties.

### III. THREE POSSIBLE WAYS TO ALLOCATE BLAME AND EXPENSES FOR ACCIDENTS AND THEIR DRAWBACKS

The current literature on AV accidents focuses on two general categories of people who could be held liable for accidents involving AVs: owner-operators and manufacturers.<sup>72</sup> In deciding who should be liable where there is widespread car-sharing instead of private ownership, the options change slightly. Whereas with private ownership, the owner and

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<sup>68</sup> ABRAHAM, *supra* note 47, at 726; SHAPO & PELTZ, *supra* note 63, at 855.

<sup>69</sup> ABRAHAM, *supra* note 47, at 726; ANDERSON ET AL., *supra* note 53, at 21 n.4.

<sup>70</sup> Ron Lieber, *Consider Worst Case with Zipcar*, N.Y. TIMES, Apr. 23, 2011, at B1.

<sup>71</sup> *Id.*

<sup>72</sup> Marchant & Lindor, *supra* note 8, at 1326–29; Goodrich, *supra* note 4, at 280.

the operator are the same, with car-sharing, the owner is the company who rents out the car, and the operators are all of the riders in a car at the time of the accident. This creates three main sources for assigning liability: riders, car-sharing companies, and manufacturers.

#### A. Drivers–Riders

As discussed above, currently liability rests predominantly on drivers because one or both drivers in an accident are most likely at fault for it. One option for AVs is to keep this status quo and continue to hold drivers responsible for damages. Who exactly is the “driver” or “operator” is the first problem posed by continuing the status quo.<sup>73</sup> One option is that the person in the driver’s seat should be the operator because she is in the best position to use any kind of manual override for the autonomous driving software.<sup>74</sup> However, the person in the driver’s seat may not be aware when a malfunction occurs and thus may not be able to prevent the accident.<sup>75</sup> In a carpooling situation, holding the person in the driver’s seat liable makes liability more about the luck of the draw (who happens to sit there that day) than about fault.

Another option, then, is to hold all riders in the car equally liable. This eliminates the issue of unluckiness, and it recognizes the reality that no one in the car is truly “operating” it.<sup>76</sup> Each rider has the same amount of control over whether the car malfunctions (i.e., no control at all) and so a distinction between passengers and drivers is unwarranted, and all riders should be considered operators equally.<sup>77</sup>

There are several reasons to hold all riders responsible. First, there is an assumption of risk argument for placing liability on the riders.<sup>78</sup> The riders understand that there is a risk of the technology malfunctioning and causing an accident, but they decide to take on that risk because the benefit

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<sup>73</sup> Several state legislatures have offered different solutions to the problem of whether passengers in a car that is “operating” itself can still be called and considered “operators.” Goodrich, *supra* note 4, at 288, 290–91.

<sup>74</sup> *See id.* at 287–88, 290–91.

<sup>75</sup> Currently, when there is a product defect that leads to an accident, the driver is not responsible even though the driver has more control over the car than an AV user. *See KALRA ET AL.*, *supra* note 13, at 27–31. It would not make sense to change this rule to hold a driver responsible for not stopping an accident that comes from a product defect of an AV if the driver is not currently responsible for that type of accident.

<sup>76</sup> *See* Goodrich, *supra* note 4, at 288 (suggesting legislators create a distinction between operating an AV—punching in directions but then letting it drive on its own—and operating it in a meaningful way—taking over control manually).

<sup>77</sup> *See id.*

<sup>78</sup> Marchant & Lindor, *supra* note 8, at 1336.

of using the car outweighs the risk.<sup>79</sup> Because the riders consented to the risk of accident to get the benefits of AVs, under assumption of risk, they would be barred from recovering from someone else, and instead would have to pay for damages.<sup>80</sup>

Another argument for placing liability on the riders is that it is easier for the few people riding in the car to resolve the issues from an accident than it is to coordinate with manufacturers. Those involved in the accident are more likely to be local if they are users of a particular local car-sharing company, whereas a manufacturer is less likely to have a local headquarters that deals with products liability claims.<sup>81</sup> It would be more time efficient to resolve the problem at the individual level without involving larger companies because the individuals are more likely to live close to each other, be able to meet face-to-face, and not have to navigate through the corporate structure to find the appropriate person to speak with.

There are several ways that liability could be assessed to riders. First, the riders in the car that caused the accident could be held jointly and severally liable for all of the damages that result from the accident. This includes bodily injuries to the riders in both cars and property damages to both cars. Alternatively, the riders in the at-fault car could pay for everything except the medical bills of the passengers in the other car, which could be paid for by first-party insurance. There are many ways that damages could be split while still holding the riders in the at-fault car the most liable.

Second, all AV users could carry first-party insurance. When an accident occurred, it would not matter which car was at-fault. Instead, each rider would pay for his or her own medical expenses using first-party insurance. Additionally, the riders in each car would be jointly and severally liable for the property damages to the car they rode in and would have to pay those damages to the company who owns the car.

There are drawbacks that apply to all of these methods of assessing liability on riders. It essentially creates a no-fault or strict liability system because the riders are not in a position to avoid the product malfunction. As

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<sup>79</sup> 2-10 FRUMER & FRIEDMAN, *supra* note 52, § 10.02(b)(ii) (“By voluntarily entering into a situation where there are well-known, incidental risks, the plaintiff consents to look out for himself or herself and relieves the defendant of any duty.”).

<sup>80</sup> *Id.*

<sup>81</sup> The primary legal departments that would address products suits tend to be located at company headquarters and not all over the country. *See, e.g., People: Toyota Motor Sales, U.S.A., Inc., MARTINDALE*, <http://www.martindale.com/Profile/ProfilePeopleIndex.aspx?orgId=233667> [<http://perma.cc/7U5J-HS78>] (showing that Toyota’s main legal department is located in Torrance, California).

mentioned in Part II, no-fault systems have not been widely adopted.<sup>82</sup> The public strongly dislikes punishing those who are not at fault and who did not engage in any negative behavior that needs to be deterred.<sup>83</sup> Additionally, riders are not in a position to make driving safer in the way they are when they are actually operating and controlling the vehicle. In contrast, manufacturers are in the best position to make the cars safer,<sup>84</sup> but they will have no incentive to actually do so if they are never liable for the accidents caused by their unsafe products. Because riders cannot make the product safer and prevent similar accidents from recurring, there is little rationale in current personal injury law to create a no-fault system.

Along the same lines, holding riders liable sets up the wrong incentives. Society should want people to use AVs because they are safer vehicles and result in fewer accidents.<sup>85</sup> If potential riders know they will be liable regardless of fault on their part, they may choose not to participate in the car-sharing system at all because of views that strict liability is unfair.<sup>86</sup> For AV use to become widespread, the legal system needs to be structured in a way that encourages individuals to try AVs in the first place. If individuals are concerned about the cost to them of an accident because they are held strictly liable for all damages, then demand will be insufficient to encourage manufacturers to make the cars and car-sharing companies to lease them.<sup>87</sup>

Placing the cost of damages on riders also raises the problem that riders generally have less money than the manufacturers. On the one hand, this may not seem like a problem because drivers are currently held liable. However, in the current system, drivers are also at fault for the accidents and better able to prevent them, so these reasons justify having them pay even if it frequently results in skyrocketing insurance premiums or financial hardship for defendants.<sup>88</sup> In the new system, though, where

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<sup>82</sup> See ANDERSON ET AL., *supra* note 53, at 3.

<sup>83</sup> *Id.* at 33 (stating that no-fault is met with skepticism because one of the main purposes of tort law is corrective justice).

<sup>84</sup> See *infra* Part III.C.

<sup>85</sup> Dana M. Mele, *The Quasi-Autonomous Car as an Assistive Device for Blind Drivers: Overcoming Liability and Regulatory Barriers*, 28 SYRACUSE J. SCI. & TECH. L. 26, 27 (2013).

<sup>86</sup> There is evidence in other legal areas that participation is linked to perception of fairness. See Jon Hurwitz & Mark Peffley, *Explaining the Great Racial Divide: Perceptions of Fairness in the U.S. Criminal Justice System*, 67 J. POL. 762, 764 (2005) (stating that citizens are more likely to follow the law when they view legal authorities and legislative decisions as fair).

<sup>87</sup> One could argue that shifting some of the cost to car-sharing companies and manufacturers will disincentivize them as well. See *infra* Part IV.B for discussion of this potential problem.

<sup>88</sup> In fact, in the current system, many people view plaintiffs' products liability suits as an attempt to go after deeper pockets instead of the party truly at fault. Marchant & Lindor, *supra* note 8, at 1329.

drivers are not at fault, there is no negative behavior by riders that justifies punishment. For those who believe that the manufacturer is either at fault for malfunctions or in a better position to prevent malfunctions, it is more sensible to have manufacturers pay damages both because they are more blameworthy and because they likely have more capital.<sup>89</sup> In general, the articles discussing who should be liable in AV accidents regard blaming “drivers” as the worst option because of the drawbacks pointed out above.<sup>90</sup>

### B. *The Car-Sharing Companies*

Unlike a scenario of widespread private AV ownership, the car-sharing scenario separates the owner of the car from the “operator” of the car. These owners are another potential actor on whom liability could fall when an accident occurs. As with drivers, there are several different ways that these companies could pay the costs of an accident. They could be held liable for all damages that occur anytime one of their cars malfunctions and is at fault. Other variations could have the company pay for only part of the damages. For example, each company could be responsible only for the damage to their car and the people within it. This would be like a no-fault system where the company holds first-party insurance for all of its cars and riders.<sup>91</sup> Similar to drivers, there are many ways that costs could be allocated, at varying levels of cost to the company.

There are a number of reasons to hold car-sharing companies liable. First, they are in a somewhat better position than drivers to improve the safety of AVs because they can put pressure on manufacturers by their car-buying decisions. If they need to buy the safest cars because they fear liability, they will encourage competition among manufacturers to improve the safety of the cars they make for companies.<sup>92</sup>

Second, the companies will reap a substantial benefit from putting AVs on the road, but in doing so the companies create the risk that the cars may malfunction and cause an accident.<sup>93</sup> Because the companies are

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<sup>89</sup> Jeffrey K. Gurney, *Sue My Car Not Me: Products Liability and Accidents Involving Autonomous Vehicles*, 2013 U. ILL. J.L. TECH. & POL'Y 247, 252.

<sup>90</sup> See, e.g., Goodrich, *supra* note 4, at 281; see also Marchant & Lindor, *supra* note 8, at 1326–29.

<sup>91</sup> See ANDERSON ET AL., *supra* note 53, at 9–11.

<sup>92</sup> Car companies already tout safety ratings to woo customers. See, e.g., *Advancing the Future of Safety*, TOYOTA, <http://www.toyota.com/letsgetplaces/safety-innovations/> [http://perma.cc/WNC6-V82A]; see also Jerry Hirsch, *Upstart Tesla Wins Top U.S. Safety Rating; What Will Competitors Do?*, L.A. TIMES (Aug. 20, 2013), <http://articles.latimes.com/2013/aug/20/autos/la-fi-hy-tesla-nhtsa-safety-rating-20130820> [http://perma.cc/7SQL-TNKG]. The only difference, then, will be that car-sharing companies, instead of individuals, will be the buyers that manufacturers must woo.

<sup>93</sup> *How Auto Insurance Companies Calculate Risk*, DMV.ORG, <http://www.dmv.org/insurance/how-auto-insurance-companies-calculate-risk.php#How-Do-Auto-Insurance-Companies->



willing to take this risk in the name of making a profit, they should also pay the costs when the harm from this risk occurs. This is seen in other areas where a company profits from unsafe activities.<sup>94</sup> Holding a company liable for its product is not unfamiliar to consumers, so holding the car-sharing company liable likely would be seen as more just than blaming drivers.<sup>95</sup>

Additionally, in other areas of personal injury law, ownership of an unsafe instrumentality can be sufficient to find liability when that instrumentality causes harm.<sup>96</sup> When an instrumentality harms others, the owner is punishable based on his or her status as owner, and it is unnecessary to find any particular actions by him that caused the harm.<sup>97</sup> It is well within current tort jurisprudence to place liability on the companies based solely on their status as owner.

That being said, car-sharing companies are most similar to car-rental companies, and the law currently shields car-rental companies from liability.<sup>98</sup> There is clear legislative intent, expressed through the Graves Amendment, to protect car-rental companies from liability, and holding car-sharing companies liable for all accidents involving their cars runs directly counter to that intent.<sup>99</sup>

However, there is a question of whether the Graves Amendment's reasoning still applies when the cars are no longer human-operated. The legislative history shows that Congress intended to shield rental companies from liability because the negligence of the driver of the car, and not any action of the rental company, caused accidents and injuries.<sup>100</sup> Therefore, if the driver is no longer negligent (because she is in an AV), that rationale for shielding companies loses much of its strength.

Another drawback to holding the companies liable is it may make the business of car-sharing cost prohibitive. The cost of maintaining high levels

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Calculate-Risk [<http://perma.cc/JPV6-9HWQ>] (stating that companies consider people who drive more a higher risk).

<sup>94</sup> See, e.g., *Chavez v. S. Pac. Transp. Co.*, 413 F. Supp. 1203, 1207 (E.D. Cal. 1976) (holding railroad company strictly liable because it participated in transporting dangerous explosives as part of its business); see also RESTATEMENT (SECOND) OF TORTS § 520 (1977) (listing factors for determining whether an activity is abnormally dangerous).

<sup>95</sup> Cf. RESTATEMENT (SECOND) OF TORTS § 520.

<sup>96</sup> See *Duffy & Hopkins*, *supra* note 13, at 467–71 (discussing strict liability on canine owners for harm (such as dog bites) done by the owned animal, and how this policy could be extended to AV owners).

<sup>97</sup> *Id.*

<sup>98</sup> 49 U.S.C. § 30106 (2012).

<sup>99</sup> Several courts have applied the shield to Zipcar, so the intent to protect extends to car-sharing companies. See *Moreau v. Josaphat*, 975 N.Y.S.2d 851 (N.Y. Sup. Ct. 2013); *Minto v. Zipcar N.Y., Inc.*, No. 15401/09 (N.Y. Sup. Ct. Mar. 17, 2010).

<sup>100</sup> See *Carton v. GMAC*, 611 F.3d 451, 457 (8th Cir. 2010) (stating that Congress had “clear intent to forestall suits” against rental companies who did not cause the accident).

of insurance to cover every accident from a malfunction of one of their cars may be too high to make the business worth pursuing.<sup>101</sup> For car-sharing to occur large-scale, many new car-sharing companies will need to arise.<sup>102</sup> High insurance costs may prevent new companies from forming, which will, in turn, prevent widespread AV use.<sup>103</sup>

### C. Manufacturers

Placing liability on the manufacturers of the new AV technology has received the most support in the debate over liability.<sup>104</sup> The biggest reason that manufacturers are targeted for liability is they are in the best position to improve the technology and decrease future malfunctions.<sup>105</sup> Of all the involved actors, the manufacturers are the most likely to be at fault for AV accidents.<sup>106</sup> If society desires to continue a fault-based system of liability for car accidents, blaming manufacturers would fit best.

An additional benefit to manufacturer liability is that the preexisting legal framework of products liability is already prepared to address the issues presented. Unlike personal injury law, which would have to adapt its definition of “operator” to fit with a car that operates itself, products liability law already addresses accidents that result from car defects.<sup>107</sup> Resolving disputes over a car’s defects would be more within the current competency of judges. Furthermore, society already accepts that car manufacturers can be held strictly liable for defects in their products.<sup>108</sup> Thus, even in cases where the AV manufacturer is not negligent, there

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<sup>101</sup> This argument is most often made in relation to the danger that manufacturers will not create the technology because of fear of liability costs, but the same fears would be created in car-sharing companies if they were held solely liable. *See Mele, supra* note 85, at 42.

<sup>102</sup> Currently, Zipcar is the most popular car-sharing company, yet it only has cars in twenty-five major cities. ZIPCAR, <http://www.zipcar.com/> [<http://perma.cc/ZG4H-UB5J>].

<sup>103</sup> Keeping insurance costs low would have a similar effect as limiting recovery under worker’s compensation schemes. Both reduce the cost for businesses of participating in areas where they expose themselves to liability. For a description of how this works in worker’s compensation, see William R. Kraus, *How “Exclusive” is “Exclusive”? The Federal Employees’ Compensation Act and Compensatory Damages in Discrimination Cases*, 43 A.F. L. REV. 145, 150 (1997).

<sup>104</sup> *See, e.g., KALRA et al., supra* note 13, at 20; Gurney, *supra* note 89, at 271; Marchant & Lindor, *supra* note 8, at 1326–29; Goodrich, *supra* note 4, at 280–81.

<sup>105</sup> Mele, *supra* note 85, at 42 (“[D]evelopers of software and computer systems, if exposed to greater liability, will have a greater incentive to create safer products, and are in the best position to prevent harmful security breaches in the first place.”).

<sup>106</sup> *See KALRA et al., supra* note 13, at 20–21.

<sup>107</sup> *See supra* Part II for a discussion of products liability. *See also* RESTATEMENT (THIRD) OF TORTS: PRODS. LIAB. § 2 (1998); Goodrich, *supra* note 4, at 280.

<sup>108</sup> *See KALRA et al., supra* note 13, at 26; Garza, *supra* note 13, at 600.

would be less aversion to applying strict liability on manufacturers than on riders or car-sharing companies.<sup>109</sup>

As it was for drivers and the car-sharing companies, the first option would be to make manufacturers pay for all damages. The costs could also be shared in a variety of other ways. Each manufacturer could be responsible for damages to the car it manufactured and the people in it, regardless of which car in the accident actually malfunctioned. Or the manufacturer of the at-fault car could pay for everything except medical bills of its own passengers, which would be paid for by first-party insurance. Many ways exist to split the cost while still holding the manufacturer predominantly liable.

Holding the manufacturer liable has fewer drawbacks on the fairness front because the manufacturer is in the best position to improve quality of the product and is most at fault for a defect.<sup>110</sup> Additionally, manufacturers continually improve the safety of their vehicles to avoid the high costs of liability, and removing these costs runs the risk of disincentivizing safety improvements.<sup>111</sup> These benefits make manufacturer liability a popular option for AVs.

However, the biggest problem with blaming the manufacturer is that companies may never make the technology if it appears too expensive.<sup>112</sup> There are many costs associated with being the bearer of liability: the high cost of insurance to cover the damages, the administrative costs of working with the insurance company to process claims, and any litigation costs that arise from disputing claims.<sup>113</sup> If a car manufacturer knows that it will incur these costs if it creates AVs, it may decide that producing AVs is cost prohibitive.<sup>114</sup> Incentivizing the creation and use of these safer vehicles

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<sup>109</sup> Compare ANDERSON et al., *supra* note 53, at 3 (lack of support for a no-fault system for drivers in accidents), with KALRA et al., *supra* note 13, at 26 (support for strict liability for manufacturers of cars in products defects cases).

<sup>110</sup> Mele, *supra* note 85, at 42.

<sup>111</sup> *Id.* See discussion *infra* Part IV describing how a National Car Insurance Fund will still incentivize manufacturers to improve AV safety.

<sup>112</sup> In other circumstances, liability has led manufacturers to choose not to create a product. For example, fear of liability led some vaccine manufacturers to cease manufacturing vaccines. Congress passed the National Childhood Vaccine Injury Act, creating a no-fault compensation system, to encourage vaccine creation and entry into the market. Betsy J. Grey, *The Plague of Causation in the National Childhood Vaccine Injury Act*, 48 HARV. J. ON LEGIS. 343, 344 (2011).

<sup>113</sup> See *Cost of Auto Crashes & Statistics*, ROCKY MOUNTAIN INS. INFO. ASS'N, [http://www.rmiiia.org/auto/traffic\\_safety/Cost\\_of\\_crashes.asp](http://www.rmiiia.org/auto/traffic_safety/Cost_of_crashes.asp) [<http://perma.cc/TM57-SGA6>]; see also Paula Hannaford-Agor & Nicole L. Waters, *Estimating the Costs of Civil Litigation*, CASELOAD HIGHLIGHTS, Jan. 2013, at 1.

<sup>114</sup> Mele, *supra* note 85, at 42; Goodrich, *supra* note 4, at 281.

should be a goal of whichever liability system is chosen, and placing too heavy a burden on manufacturers will frustrate that goal.<sup>115</sup>

#### IV. SHARING THE COSTS: A NEW NATIONAL INSURANCE FUND

Riders, car-sharing companies, and AV manufacturers will all benefit from increased use of AVs, and because there is no clear reason to place all liability on one versus the other, the best solution is to create a no-fault system and have everyone split the costs of damages. Under this system, legislation would bar all personal injury suits from accidents where all of the cars involved are AVs, not just those accidents below a certain damages threshold. Instead, those with damages would turn to a National Car Insurance Fund (the Fund) for recovery.

##### A. *Potential Ways to Set up an Insurance Fund*

There are several ways that a large-scale insurance fund paid for by all actors could be run. This Note suggests that the best solution is operation by a federal agency. However, state-run and private insurance funds will also be briefly discussed.

1. *The Federally Run National Car Insurance Fund.*—The Fund would work similarly to how Federal Insurance Contributions Act (FICA) contributions to Social Security and Medicare operate now. FICA contributions are removed from employee paychecks each month and placed into trust funds for both Medicare and Social Security.<sup>116</sup> Those who qualify for Social Security or Medicare benefits can then apply to receive payments from the funds.<sup>117</sup> Many employees will never use the money, but it is there for everyone who needs it.<sup>118</sup> A governmental agency is in charge of both processing the claims for benefits and paying the appropriate amount to claimants. For example, the Social Security Administration (SSA) processes claims for Social Security Disability Insurance (SSDI),<sup>119</sup> whereas Health and Human Services oversees Medicare.<sup>120</sup>

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<sup>115</sup> See KALRA et al., *supra* note 13, at 22.

<sup>116</sup> Dave Roos, *How FICA Works*, HOWSTUFFWORKS (Feb. 22, 2012), <http://money.howstuffworks.com/personal-finance/personal-income-taxes/fica.htm> [<http://perma.cc/QF7J-V7XD>].

<sup>117</sup> See, e.g., *Disability Determination Process*, SOC. SEC. ADMIN., <http://www.ssa.gov/disability/determination.htm> [<http://perma.cc/5Z6M-EYXY>].

<sup>118</sup> See Roos, *supra* note 116.

<sup>119</sup> *Benefits for People with Disabilities*, SOC. SEC. ADMIN., <http://www.ssa.gov/disability/> [<http://perma.cc/6N8Q-TT5V>].

<sup>120</sup> *HHS Programs and Services*, HHS.GOV, <http://www.hhs.gov/about/programs/index.html> [<http://perma.cc/6CF9-X3HL>].

The Fund would operate in the same way. Riders, car-sharing companies, and manufacturers would all contribute through taxes and in proportion to how much they benefit from the use of AVs. The money would be stored in a trust fund and overseen by a department created within the NHTSA. Anyone who suffers damages from an AV accident would file a claim with the NHTSA department, who would review the claim and dole out payments.

Manufacturers would contribute based on how many AVs they produce in a given year because the more cars they create and place on the roads, the more likely one of them will be in an accident.<sup>121</sup> Similarly, car-sharing companies would contribute based on the size of their fleet, because those with bigger fleets will be more likely to request money from the Fund to pay for property damages.<sup>122</sup> Finally, riders would pay based on their frequency of use so that those most at risk of needing payouts will pay the most in taxes. Private insurance companies currently calculate a driver's potential risk of accidents from a variety of factors in deciding the cost of premiums.<sup>123</sup> The NHTSA could work with these private insurance adjusters to decide what level of taxation would be appropriate based on the risks each rider, company, or manufacturer pose.

Private insurance companies also raise premiums for drivers who are more frequently in accidents because they cost the insurance companies more money in paid-out claims.<sup>124</sup> The NHTSA could make the same determinations. Initially, all manufacturers and car-sharing companies would pay at the same rate per car. However, if a particular manufacturer's or company's cars are involved in accidents more frequently than the average rate, their tax rates would be increased.<sup>125</sup> This would appropriately incentivize manufacturers to increase their products' safety, and car-sharing companies to purchase the safest cars.<sup>126</sup> It would also ensure that those

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<sup>121</sup> Cf. *How Auto Insurance Companies Calculate Risk*, *supra* note 93 (showing that insurance rates are calculated based on risk of accident and premiums increase when the risk for accident is higher, such as for vehicles driven in heavy traffic areas where accidents are more likely).

<sup>122</sup> *See id.*

<sup>123</sup> *Id.* (factors include age, sex, occupation, place of residence, etc.); *How Your Car Insurance Rate is Determined*, ESURANCE, <http://www.esurance.com/car-insurance-info/how-car-insurance-rates-are-calculated> [<http://perma.cc/5T99-R5LA>].

<sup>124</sup> *How Your Car Insurance Rate is Determined*, *supra* note 123 (“A good rule of thumb: the cleaner your driving record, the lower your premium.”).

<sup>125</sup> The rate could be raised for riders, too, based on how many times they need to file a claim. However, because riders are in a worse position to increase the safety of the car they happen to ride in than either car-sharing companies or manufacturers are, the argument to raise a rider's tax level for frequent involvement in accidents is weaker.

<sup>126</sup> *See* SHAPO & PELTZ, *supra* note 63, at 407 (fear of paying damages acts to deter others from similar future misconduct). This increase in payment would help address the concern, discussed in Part III, that removing manufacturer liability would reduce incentives to steadily improve safety features.

companies whose vehicles had the most accidents, and therefore used the Fund most often, paid more into the Fund.

The NHTSA would create particular requirements for what must be sent to them as part of filing a claim. This is similar to the SSA process for SSDI applications, which requires the applicant to provide specific medical records that prove disability.<sup>127</sup> For injured riders, the NHTSA would require medical records showing the actual cost of treatment for injuries. People injured in car accidents already have to compile this information for either their insurance company or for litigation, so sending it to a governmental agency would be no greater hassle than is currently imposed.<sup>128</sup>

The NHTSA would also set requirements for documentation needed from companies to prove property damages. This is also information that car owners usually must provide to their insurance company or in litigation, so it is not a heavy burden for companies. Companies and passengers will benefit because they will only have to coordinate with the governmental agency instead of having to coordinate with all of the people who were involved in an accident. Because only one insurance plan is involved (i.e., the Fund), resolution of accidents should be more efficient than if each party has its own insurance company that must coordinate with all the other parties.

The NHTSA will review the claims and pay damages based on the information provided by claimants, as well as review adjusters' tables about how much certain injuries cost.<sup>129</sup> An appeals process would be in place, where claimants can send additional information or have an administrative hearing if they feel that the agency did not award the proper amount.<sup>130</sup> Because no one is truly "at fault" for the accident, the agency would follow the lead of no-fault systems and only award compensatory damages rather than punitive damages.<sup>131</sup> In establishing the Fund, Congress will need to determine which economic and noneconomic losses

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<sup>127</sup> See, e.g., *Disability Determination Process*, *supra* note 117.

<sup>128</sup> See *How GEICO Investigates a Claim*, GEICO, <https://www.geico.com/claims/claimsprocess/claim-investigation/> [<http://perma.cc/R2T7-UX2V>]; see also 4-12 FRUMER & FRIEDMAN, *supra* note 52, § 12.72.

<sup>129</sup> See Nora Freeman Engstrom, *Run-of-the-Mill Justice*, 22 GEO. J. LEGAL ETHICS 1485, 1532 (2009) ("Settlement mill negotiators and the cadre of insurance adjusters with whom they bargain come to a common understanding of certain injuries' proper value.").

<sup>130</sup> The appeals process could be modeled off of the one that already exists for SSDI claims. See *Disability Determination Process*, *supra* note 117.

<sup>131</sup> The point of punitive damages is to punish the person at fault, and because no one is at fault in AV accidents, punitive damages become unnecessary. See SHAPO & PELTZ, *supra* note 63, at 445.

the Fund will cover.<sup>132</sup> Covering noneconomic losses may increase support for the Fund, but will also raise the overall cost and will retain some of the arbitrariness inherent in awarding pain and suffering. For economic losses, using adjusters' tables and records from claimants will help eliminate arbitrary and excessive compensatory damages that often occur with jury trials.<sup>133</sup> This should result in more standardized damage awards and an overall lowering of the cost of damages per accident. Which losses the Fund covers is a policy decision Congress will have to make based on weighing the benefits of standardization against the costs of eliminating pain and suffering recovery.

2. *Alternatives to a Federally Run Fund.*—This section discusses two alternatives to the federal government creating and managing the trust fund: (1) a state-run fund and (2) private insurance. These alternatives might be more palatable to those with concerns about increasing federal involvement in an area that, as discussed above, has previously been dominated by private insurance and state law.

The first alternative is for a state agency to create a state-run insurance fund. One benefit would be that instead of one federal agency dealing with all claims nationwide, each state would have a smaller number of claims that they could potentially process more efficiently. Second, a state-run fund would have the benefit of being a better fit for each state's needs.<sup>134</sup> Each state could raise and lower the taxes on their citizens based on how many accidents actually occur. States could also experiment with the means by which they process claims to find what works best for their constituencies.<sup>135</sup> With a National Fund, some states will end up paying more than their citizens need because the tax rate will be decided based on national needs.<sup>136</sup>

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<sup>132</sup> Some states, in establishing a no-fault system, prevent recovery of any noneconomic losses, such as pain and suffering. *Id.* at 844. States vary with respect to which economic losses are covered. Michigan, for example, allows for a high level of recovery and covers all medical expenses and lost wages. PAUL HEATON, RAND INST. FOR CIVIL JUSTICE, AUTO INSURANCE REFORM IN MICHIGAN 1 (2010).

<sup>133</sup> See SHAPO & PELTZ, *supra* note 63, at 839–41.

<sup>134</sup> This is the classic “laboratories of democracy” argument, which posits that states are better able to meet the individualized needs of their constituencies and to try out creative solutions to problems because they are smaller and more localized entities. See *New State Ice Co. v. Liebmann*, 285 U.S. 262, 311 (1932) (Brandeis, J., dissenting) (originating the term).

<sup>135</sup> See *id.*

<sup>136</sup> This is already seen with other federal taxes where some states are subsidizing others. For example, in 2005, Mississippi received \$2.02 in federal spending for every dollar it paid in federal taxes, whereas New Jersey received only \$0.61 in federal spending. *Federal Spending Received Per Dollar of Taxes Paid by State, 2005*, TAX FOUND. (Oct. 9, 2007), <http://taxfoundation.org/article/federal-spending-received-dollar-taxes-paid-state-2005> [http://perma.cc/G7ZT-6D6A].

However, with insurance, the more people who pay into the plan, the lower the premiums are for everyone.<sup>137</sup> If a similar insurance fund were state-run, the taxes would be higher because there would be a smaller number of participants and thus less loss spreading.<sup>138</sup> The higher the taxes, the less likely people will choose to switch to AVs.

A second problem with state-run funds is the administrative burden on manufacturers and states. With the National Fund, the manufacturer would just have to determine its national taxable income from all AVs it sold and pay one federal tax. In contrast, with state-run funds, the manufacturer would have to determine its taxable income from AVs in each state where it sold them and then pay taxes to all of those different states. This may not seem like a large burden because nationwide corporations already pay taxes in multiple states.<sup>139</sup> However, the benefit of only having to pay one tax, instead of potentially fifty, cuts in favor of the National Fund.

Private insurance companies could also operate the funds instead of government-run insurance. Each private company would have one fund into which all of their customers pay at different rates and from which each customer could withdraw as needed. When there is an accident, the private insurance adjusters would look at the black box, review medical and property damage records, and allocate funds accordingly in the same way the federal agency would. One benefit of using private insurance is that private insurance companies' adjusters are already trained to review claims.<sup>140</sup> An additional benefit of private companies is that they could set the premiums based on the risk their customers actually posed.<sup>141</sup> As with the states, the smaller plans would mean narrower tailoring.

A drawback to private insurance is that, as with the states, the smaller plan will mean higher costs. Additionally, costs will likely be higher for private plans because the companies are for-profit. One look at the current health insurance system shows just how high premiums can climb when for-profit companies dominate the insurance scene.<sup>142</sup> In contrast, if the

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<sup>137</sup> This is seen in health insurance. See Laura D. Hermer, *Private Health Insurance in the United States: A Proposal for a More Functional System*, 6 HOUS. J. HEALTH L. & POL'Y 1, 8 (2005) ("[Insurance] functions by spreading risk across a wide range of individuals, some of whom need care in any given year and some of whom do not.").

<sup>138</sup> The larger a plan, the lower the costs. *Id.* ("By offering insurance to a large number of individuals, it can take advantage of the likelihood that many insured individuals will pay more in health insurance premiums than they will require in health care costs.").

<sup>139</sup> See *Spector Motor Serv., Inc. v. O'Connor*, 340 U.S. 602, 608–10 (1951) (each state has the authority to tax any corporation who conducts commerce within its boundaries).

<sup>140</sup> See, e.g., *How GEICO Investigates a Claim*, *supra* note 128.

<sup>141</sup> See *How Your Car Insurance Rate is Determined*, *supra* note 123.

<sup>142</sup> See generally Vanessa Fuhrmans, *Health-Care Premiums Climbing Faster Than Inflation*, *Studies Say*, WALL ST. J., Sept. 12, 2007, <http://online.wsj.com/news/articles/SB118951621359523764>



Fund is the only game in town and only needs to break even, the prices will be lower.

### B. Benefits of Federal Agency Involvement

As mentioned in Part III, one drawback that exists for holding drivers, car-sharing companies, or manufacturers liable is the possibility that liability would disincentivize AV use. To be a better option, the Fund must incentivize all actors to create, buy, and use AVs. The Fund will accomplish this by lowering overall accident costs below their current levels and decreasing the potential costs for each individual actor if they were held solely liable.

As mentioned above, for insurance, the bigger the plan, the less each person in it has to pay. This occurs because people with a high risk of needing to file a claim (drivers with a history of accidents) are combined in the same plan with those who are unlikely to file a claim (safe drivers).<sup>143</sup> The more people in the plan, therefore, the more the losses that one unsafe driver incurs can be spread out and collected as low premiums.<sup>144</sup>

At first glance, this system does not seem to work for insurance plans involving AVs because there are no longer risky or safe drivers. However, there are still differences that will lead to higher risk of higher losses for certain people. For example, people living in high-population states will be a greater risk because there will be more cars in the state overall, which means more accidents in the state.<sup>145</sup> Additionally, places with high population density are likely to have more people in each shared car because people are more likely to live near each other and be going to the same place.<sup>146</sup> An accident where four people are in the AV and are injured

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[<http://perma.cc/Z3Q-8FRW>] (“[T]he annual cost for family coverage through an employer plan is now more than \$12,000, well over what a minimum-wage worker earns in a year.”); Alina Selyukh, *Health Insurance Premiums Climb Faster in 2011*, REUTERS, Sept. 27, 2011, available at <http://www.reuters.com/article/2011/09/27/us-usa-health-poll-kaiser-idUSTRE78Q31820110927>

[<http://perma.cc/Y3V-Z3V6>] (“[T]he cost of health insurance continues to climb for companies and workers, with annual family premiums this year growing at a pace triple that of 2010 and outpacing wage increases . . .”).

<sup>143</sup> Cf. Richard C. Ausness, *Litigation and Compensation: Paying for the Health Costs of Smoking: Loss Shifting and Loss Bearing*, 27 SW. U. L. REV. 537, 560 (1998) (explaining how loss spreading works, using smokers as an example).

<sup>144</sup> See *id.*

<sup>145</sup> This can be seen just by basic math. If 1% of AVs are in an accident per month, then a place with 1000 AVs is going to have fewer accidents than one with 1 million AVs. See also *Where Car Accidents Happen Most*, *supra* note 42.

<sup>146</sup> Carpooling is already most popular in areas with high population density, in part because there are enough people who live and work near each other to make the system efficient. See Nelson D. Chan & Susan A. Shaheen, *Ridesharing in North America: Past, Present, and Future*, 32 TRANSP. REVS. 93, 101 (2012) (stating that, for example, casual carpooling (slugging) is seen in Houston, San Francisco, and the D.C. suburbs).

will cost more than an accident with one person, so the accidents in areas with high population density will cost more on average. By combining riders, car-sharing companies, and manufacturers from small and large states, the National Fund will be much larger than the private insurance plans that currently exist and will spread the risks effectively.<sup>147</sup>

Right now, car insurance costs vary widely, but one study showed the average cost can range from as little as \$80 per month to as much as \$213 per month, depending on the state.<sup>148</sup> The National Insurance Fund would reduce this monthly cost by having many more people paying into one large fund.<sup>149</sup> Additionally, the Fund could eliminate deductibles and instead pay the entirety of each claim for damages.<sup>150</sup> If this were done, any individual in an accident would save several hundred dollars more by participating in the Fund instead of private insurance.

The taxes paid would vary based on use of the system and therefore differ from FICA, which uses a flat percentage for everyone's paycheck. However, looking at the amount of money FICA taxes raise per year can show how high the taxes would need to be to cover the cost of accidents. Currently, 7.65% of an employee's monthly paycheck is taken out for FICA taxes.<sup>151</sup> The projected revenue from FICA taxes in 2014 is roughly \$1.033 trillion.<sup>152</sup> Car accidents in 2010 cost around one trillion dollars.<sup>153</sup> Thus, even if AVs did not reduce the number and cost of accidents at all, the amount the Fund would need to raise would still be less than what is raised by FICA taxes, so the tax rate would also be less once AV use becomes widespread. With manufacturers and companies also paying a

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<sup>147</sup> The total number of licensed drivers needing insurance in the United States is 210 million, but they are spread among multiple insurance companies, like GEICO, who has only about 13 million policyholders. *GEICO at a Glance*, GEICO, <https://www.geico.com/about/corporate/at-a-glance/> [<http://perma.cc/4HTN-BX83>]; *Our Nation's Highways: 2011*, FED. HIGHWAY ADMIN., <http://www.fhwa.dot.gov/policyinformation/pubs/hf/pl11028/chapter4.cfm> [<http://perma.cc/C8QK-K9XL>].

<sup>148</sup> Brian Quinn, *Average Cost of Insurance: Car, Home, Renters, and Pet (2015)*, VALUEPENGUIN, <http://www.valuepenguin.com/average-cost-of-insurance>.

<sup>149</sup> The calculations in the following paragraph demonstrate this further.

<sup>150</sup> Most private car insurance companies have a deductible that the insured must pay out of pocket for an accident. The amount can vary widely, so the amount saved by the Fund eliminating them would also vary. See Aaron Crowe, *Higher Deductibles Can Save*, CARINSURANCE.COM (last updated Jan. 29, 2014), <http://www.carinsurance.com/Articles/raising-deductible-savings.aspx> [<http://perma.cc/Q8EP-7NGJ>] (comparing deductibles ranging from \$250 to \$2500).

<sup>151</sup> *Topic 751 - Social Security and Medicare Withholding Rates*, INTERNAL REVENUE SERV. (last updated July 16, 2014), <http://www.irs.gov/taxtopics/tc751.html> [<http://perma.cc/3S3K-DDLG>].

<sup>152</sup> CONG. BUDGET OFFICE, *THE BUDGET AND ECONOMIC OUTLOOK: 2014 TO 2024*, at 12 (2014), available at [http://www.cbo.gov/sites/default/files/cbofiles/attachments/45010-Outlook2014\\_Feb.pdf](http://www.cbo.gov/sites/default/files/cbofiles/attachments/45010-Outlook2014_Feb.pdf) [<http://perma.cc/2EF7-Z63V>].

<sup>153</sup> *Cost of Auto Crashes & Statistics*, *supra* note 113.

good portion of the taxes, the amount the tax would need to raise from individual drivers would drop even lower.

Car insurance is not the only cost associated with car accidents. Litigation is expensive, so each legal dispute over fault in an accident costs the parties substantially.<sup>154</sup> By banning litigation and using the Fund exclusively, injured parties will avoid the exorbitant costs of litigation.<sup>155</sup> Furthermore, avoiding litigation will avoid the costs associated with punitive damages and excessive jury verdicts.<sup>156</sup> Although they are not frequently awarded, punitive damages act as punishment for the defendant's negligence in driving and do not represent any actual costs of the plaintiff.<sup>157</sup> By paying only actual damages and by using set formulas to determine future damages, the NHTSA will reduce the costs of accidents and thereby reduce the needed amount in the Fund.

Finally, as mentioned above, the NHTSA would not be trying to make a profit and would only need to raise enough money to pay the actual cost of accidents. As more AVs enter the market, fewer accidents should occur, and the NHTSA could lower taxes even further. Not needing to turn a profit allows the NHTSA to set prices that accurately reflect the amount it needs to pay claimants each month.<sup>158</sup>

All of the lowered costs will be spread among the riders, car-sharing companies, and manufacturers, so unlike the alternatives listed in Part III, no one actor is getting punished more severely. Each actor should pay less per accident than it currently does. By reducing the financial burden on all actors, everyone is incentivized to create and use AVs.

### C. Barriers to Creating the Fund

Many barriers exist to creating new, large-scale government programs. This Note is not suggesting that the Fund is the most likely or even a very feasible option, but instead is suggesting that if implemented, the Fund

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<sup>154</sup> See Hannaford-Agor & Waters, *supra* note 113 (stating that at the median, a senior attorney's billable hours alone cost \$20,763 for a full automobile tort trial, and that adding an expert makes the total fees per case \$43,238); William A. Taylor, *The Economics of a Civil Lawsuit*, BUS. LAW. (Feb. 19, 2015), available at [http://www.thebusinesslawyers.com/BBL\\_News\\_Articles/Litigation%20Economics%20101.pdf](http://www.thebusinesslawyers.com/BBL_News_Articles/Litigation%20Economics%20101.pdf) [<http://perma.cc/manage/vest/F6SZ-48YV>] (stating that civil suits can easily cost up to \$50,000).

<sup>155</sup> Barring suits to meet the purpose of avoiding litigation costs and larger awards is currently best seen in the Worker's Compensation context. See Kraus, *supra* note 103, at 150.

<sup>156</sup> SHAPO & PELTZ, *supra* note 63, at 447 (stating that the Supreme Court has upheld jury awards for punitive damages that are "more than 200 times the out-of-pocket expenses").

<sup>157</sup> *Id.* at 445 (discussing the punishment and deterrence rationales for punitive damages).

<sup>158</sup> For example, Congress has changed FICA tax levels twenty-one times since 1935. *Program Provisions and SSA Administrative Data*, SOC. SEC. ADMIN., <http://www.ssa.gov/policy/docs/statcomps/supplement/2010/2a1-2a7.html#table2.a3> [<http://perma.cc/9Q5S-6422>].

could solve some of the problems that arise from holding only one party liable for AV accidents. This Section touches on some of the biggest hurdles the Fund would face and recognizes that some of those hurdles may be insurmountable.

As anyone who has read the news about the Affordable Care Act knows, many members of the public do not like government involvement in areas that they see as better suited for private business.<sup>159</sup> The same concerns about excessive federal government involvement will likely meet any proposal for replacement of private car insurance with a national version. However, not all large government programs are as disliked as the Affordable Care Act. For example, support for Social Security and Medicare was fairly high in recent public polling.<sup>160</sup> Additionally, despite frequent public criticism, Congress did pass the Affordable Care Act, and it has remained on the books since 2010.<sup>161</sup> Therefore, negative public opinion is not always an insurmountable hurdle to Congress dramatically increasing a governmental program, and the Fund could gain enough support to pass in Congress.

Lobbying against the National Car Insurance Fund, in contrast, may be an insurmountable hurdle. As shown by recent attempts to pass gun control legislation, even when public opinion is staunchly in favor of specific legislative actions, powerful lobbying interests can prevent action.<sup>162</sup> Private car insurance companies will lose substantial business as more people use AVs and rely on the Fund instead. Personal injury plaintiff's attorneys and insurance defense attorneys will also lose business if legislation bars lawsuits. Lawyers and insurance companies have

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<sup>159</sup> See, e.g., Michael McAuliff & Sara Kenigsberg, *Obamacare Is Socialism: Reps. Louie Gohmert, Steve King Attack*, HUFFINGTON POST (last updated Mar. 20, 2014, 7:59 AM), [http://www.huffingtonpost.com/2012/03/27/obamacare-socialism-louie-gohmert-steve-king\\_n\\_1383973.html](http://www.huffingtonpost.com/2012/03/27/obamacare-socialism-louie-gohmert-steve-king_n_1383973.html) [<http://perma.cc/ZPP6-E73>]; O'Reilly: 'ObamaCare Is Part of the Socialist Vision for America,' FOXNEWS INSIDER (Oct. 22, 2013, 8:05 PM), <http://foxnewsinsider.com/2013/10/22/oreilly-obamacare-part-socialist-vision-america> [<http://perma.cc/742X-44NE>].

<sup>160</sup> Stephanie Condon, *Poll: Most Americans Say Medicare Is Worth the Cost* (Apr. 21, 2011, 8:08 PM), <http://www.cbsnews.com/news/poll-most-americans-say-medicare-is-worth-the-cost/> [<http://perma.cc/9WNV-DR9P>]; Jason Sattler, *POLL: Clear Majority Want No Medicare, Social Security or Education Cuts* (Jan. 25, 2013, 3:46 PM), <http://www.nationalmemo.com/poll-clear-majority-want-no-medicare-social-security-or-education-cuts/> [<http://perma.cc/7P98-AQ22>].

<sup>161</sup> See *Health Care that Works for Americans*, WHITE HOUSE, <http://www.whitehouse.gov/healthreform/healthcare-overview> [<http://perma.cc/Q3KV-KSXA>].

<sup>162</sup> After the Newtown shootings, 71% of those polled supported a federal database tracking gun sales, and 65% supported banning high-capacity ammunition magazines. Gary Langer, *After Newtown Shootings, Most Back Some Gun Controls, Poll Shows*, ABC NEWS (Jan. 14, 2013, 5:00 PM), <http://abcnews.go.com/blogs/politics/2013/01/on-eve-of-newtown-recommendations-most-back-new-gun-control-measures/> [<http://perma.cc/66M3-4SXB>]. But gun control measures failed in Congress. Jonathan Weisman, *Gun Control Drive Blocked in Senate; Obama, in Defeat, Sees 'Shameful Day,'* N.Y. TIMES, Apr. 18, 2013, at A1.

substantial capital and will be willing to spend large amounts to try and prevent creation of the Fund.<sup>163</sup> One potential solution would be for NHTSA to contract out the day-to-day administration of the Fund to private insurance companies to prevent the companies from going out of business and ensure they get on board.<sup>164</sup> Most legislation has winners and losers, so just because the Fund would harm some sectors does not necessarily mean it cannot be created.

Legislators and the public may also not initially support the Fund because of the view of government as slow, burdensome, and full of red tape that will bog down claims.<sup>165</sup> This opinion of the government is not necessarily supported by the numbers. The typical Medicare claim takes an average of only 30 days to process,<sup>166</sup> but the typical initial application for Social Security Disability Insurance can take 90 to 120 days to process.<sup>167</sup> Claims with private car insurance, can vary anywhere from a couple days to 60 days to process.<sup>168</sup> Based on this evidence, sometimes the government is faster and sometimes it is slower than private companies in processing information. What is important for passing legislation, however, is public opinion about how slowly the government operates, and therefore the actual amount of time the Fund will take to process claims is irrelevant. Proponents could build in statutorily required deadlines for processing claims or attempt to emulate Medicare's faster procedures to assure the

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<sup>163</sup> Lobbying by private insurers against legislation was recently seen in the fight against the Affordable Care Act. Chris McGreal, *Revealed: Millions Spent by Lobby Firms Fighting Obama Health Reforms*, GUARDIAN, Oct. 1, 2009, <http://www.theguardian.com/world/2009/oct/01/lobbyists-millions-obama-healthcare-reform> [<http://perma.cc/L4TC-T2KR>] (health industry and interest groups spent \$380 million); Rick Ungar, *Busted! Health Insurers Secretly Spent Huge To Defeat Health Care Reform While Pretending To Support Obamacare*, FORBES (June 25, 2012, 8:37 PM), <http://www.forbes.com/sites/rickungar/2012/06/25/busted-health-insurers-secretly-spent-huge-to-defeat-health-care-reform-while-pretending-to-support-obamacare/> [<http://perma.cc/HS8K-W4B9>].

<sup>164</sup> But contracting out may actually cost more, which could harm the Fund's purpose of keeping everyone's costs lower than they are with private car insurance now. See Ron Nixon, *Government Pays More in Contracts, Study Finds*, N.Y. TIMES, Sept. 13, 2011, at A16.

<sup>165</sup> Abhijit V. Banerjee, *A Theory of Misgovernance*, 112 Q.J. ECON. 1289, 1289 (1997); Emily Ekins, *Poll: Majority of Americans Say the Government Is Burdensome and Impedes Them*, REASON.COM (Dec. 12, 2013, 1:31PM), <http://reason.com/blog/2013/12/12/poll-majority-of-americans-say-the-gove2> [<http://perma.cc/KS8T-9KTL>] ("Americans think government, while necessary for certain functions, is generally burdensome and impedes them more than helps them.")

<sup>166</sup> *How Medicare Part A & B Claims Are Processed*, CAL. HEALTH ADVOCS. (last updated Apr. 24, 2009), <http://www.cahealthadvocates.org/billing/ab-processed.html> [<http://perma.cc/QK35-A8B5>].

<sup>167</sup> Tim Moore, *Applying for Disability - How Long Does It Take to Get Social Security Disability or SSI Benefits?*, SSDRC, <http://www.ssdrc.com/disabilityquestions1-46.html> [<http://perma.cc/6J96-TL7E>].

<sup>168</sup> *How Long Does it Take to Receive an Insurance Claim Check?*, CARSDIRECT (June 25, 2013), <http://www.carsdirect.com/car-insurance/how-long-does-it-take-to-receive-an-insurance-claim-check> [<http://perma.cc/JXY4-R7LY>].

public that their claims will be processed as quickly as with private insurance. In addition to concerns about how long claims will take to process, there will likely also be apprehension about how long the initial startup will take and what initial kinks there will be. Statutory deadlines could also help assuage these anxieties.

As mentioned in the Introduction, this Note focuses on how to structure insurance once AV use is widespread, and leaves to future discussion the problems of the transition period from human-operated cars to AVs. However, it is worth noting that one final problem with implementing the Fund is the negative impact it will have on those who do not switch to AV use. As more people use AVs and the Fund, fewer people will be left buying private car insurance. The private companies will have to substantially raise premiums on all remaining customers in order to remain solvent and compensate for lost business.<sup>169</sup> As demand for private insurance falls, the number of suppliers of insurance will also fall, and those who still want private insurance will not benefit from multiple companies competing for the best prices.<sup>170</sup> On the one hand, promoters of universal AV use may want this because it will make continued use of the more dangerous human-operated cars economically infeasible. But in the short-term, fear of skyrocketing insurance prices for those who do not want to use AVs could be another source of public disapproval of the Fund. One option is for the government to provide short-term subsidies to those still using human-operated cars during the transition period to help avoid public outcry against the Fund. These subsidies should be short-term so that drivers are still compelled economically to switch to the safer AVs within a reasonable timeframe.

### CONCLUSION

This Note does not profess to have all of the answers on how to overcome the various barriers to creating the Fund. It does suggest, however, that the federal government start planning for when AVs enter the market. Although robot cars seem like something out of a futuristic movie,

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<sup>169</sup> Robert W. Peterson, *New Technology—Old Law: Autonomous Vehicles and California's Insurance Framework*, 52 SANTA CLARA L. REV. 1341, 1381 (2012) (discussing how the insurance companies will increase premiums for human-operated cars to compensate for losses in premiums for AV riders).

<sup>170</sup> It has been a long-running rule of economics that more competition drives down prices, and this has been seen recently in the health insurance debates. See Geoffrey Cowley, *New Signs that Obamacare is Lowering Insurance Costs*, MSNBC (last updated Jan. 23, 2014, 7:15 PM), <http://www.msnbc.com/the-last-word/new-signs-obamacare-lowering-insuranc> [<http://perma.cc/RJW9-NELS>] (explaining that the individual mandate creates a bigger market which forces private companies to compete for customers by lowering costs).

Google already has many AVs up and running, and major car companies are looking to add AVs to their fleets within the next ten years.<sup>171</sup> Legislators must start now to decide how best to distribute liability and costs for accidents involving AVs. The government has an interest in promoting the use of AVs, but for manufacturers to feel secure in releasing these cars and for drivers to feel secure in using them, there will need to be a system in place for addressing accidents. Creation of a no-fault system coupled with a National Car Insurance Fund is at least one option for legislators to consider moving forward.

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<sup>171</sup> See Knight, *supra* note 5; Lavrinc, *supra* note 5.

