

Uniform Law Commission
Highly Automated Vehicle (HAV) Drafting Committee

Note to Committee Members and Observers on Insurance Provisions

Hilary Rowen

This Note provides background information on insurance regulation relating to the insurance provisions in the draft uniform law.

Background on Insurance Regulation

The initial portion of this Note provides general background on automobile insurance for individuals and commercial enterprises and the varying regulatory regimes applicable to automobile insurance. It is intended to provide context for a discussion of the insurance provisions in the draft uniform law.

Personal Lines and Commercial Lines Auto Policies – The Difference in Intensity of Regulation

Auto insurance policies issued to individuals are categorized as private passenger auto policies. Private passenger auto policies can include coverage for certain types of commercial use of passenger type cars. Auto insurance policies providing coverage for fleets of passenger cars and for trucks and other commercial vehicles are categorized as commercial auto policies.

The degree of regulation of auto coverage by state insurance regulators varies widely from state to state. These requirements include premium rate filings, policy form filings, regulatory pre-approval of premium rates and the factors used to determine the applicable premiums, and statutes or regulations determining the rating factors that insurers may use.

In general, private passenger auto coverage is subject to a higher degree of regulation than commercial auto coverage. In states with more rigorous regulatory requirements for personal lines, the differences in the regulatory treatment of private passenger auto coverage and commercial auto coverage are marked. A number of states require rate filings for private passenger auto insurance, but not commercial auto insurance. Similarly, a number of states require form filings for private passenger auto insurance, but not commercial auto insurance. State insurance codes often contain specific coverage requirements for private passenger auto policies that are not applicable commercial auto policies.

An Extreme Example: California

At the extreme end of the regulation intensity spectrum, California specifies by regulation a list of all the permitted rating factors that can be used to price private passenger auto and mandates that certain (human) driver characteristics be given the greatest weight in determining the premium charged. The three mandatory rating factors are (in order of weighting) the driver's traffic citation and accident history, the annual vehicle miles travelled and the driver's years of driving experience. Applying the first and third mandatory factors to an Automated Driving System (ADS) is highly problematic. The mileage factor will likely remain predictive. (However, even for conventional cars, where a car is garaged and therefore, the area where the car is most frequently driven) is more predictive of future losses than total annual mileage.

For HAVs that will be driven both under human and ADS control, the split in the mileage between human and ADS control is likely to be far more predictive than total annual mileage. Changing California's private passenger rating statute to accommodate HAVs may be difficult. Those provisions were added to the

Insurance Code by a voter initiative and courts are likely to rule that they can only be amended by initiative. In California, pricing private passenger auto to reflect the expected lower losses of HAVs may require group policies rather than individually underwritten policies or an ownership system that allows HAVs to be insured under a commercial lines auto policy. Many, but not all, states require that private passenger auto coverage be issued by an insurer licensed to transact insurance in that state – termed an admitted insurer. In contrast, most states allow commercial auto coverage to be placed with a non-admitted surplus lines insurer. Typically, but not always, the surplus lines insurer must be on a list of surplus lines carriers approved by the insurance regulator.

In many circumstances, the insurance broker placing the coverage must first seek to place the policy with an admitted carrier. Surplus lines insurers are exempt from state rate and form filing requirements. Novel forms of coverage often are written initially by surplus lines carriers for a variety of reasons; which include the absence of rate and form filing requirements and the ability to get insurance products to market more quickly.

With some exceptions, private passenger auto insurance and commercial auto policies (other than commercial auto policies designed for small businesses) are written by different insurers. Many insurance groups include separate insurers writing private passenger auto and commercial auto (often as a part of commercial coverage packages). However, many of the household name private passenger auto insurers do not have affiliates writing large commercial products.

HAVs and Novel Insurance Claims Issues

With conventional cars, liability claims handling generally involves determining which (if any) of the participants in an accident were at fault and, in many states, the comparative degree of fault. Insurers can make these determinations quite quickly, given that most accidents fall in to a number of common accident scenarios; very few claims are litigated.

HAVs will create novel accident patterns. For Level 3 cars, there will be issues relating to whether the ADS or the human (or neither) was at fault. Did the human cause the accident by seizing control of the wheel from the ADS or did the human – unsuccessfully – seek to avert an accident when the ADS failed. For Level 4/5 cars capable of toggling to human control there may be similar issues if the human can seize control of the car. Many of these issues will likely be resolvable using operational data from the vehicle, but there will be a non-trivial period of time until insurers have a reasonably comprehensive set of accident scenario pigeon holes. Given that HAVs are expected to have lower accident frequency than conventional cars, the administrative cost per liability claim of resolving HAV accidents will probably be higher than the administrative cost of resolving liability claims for conventional cars for quite a long time.

In accidents involving conventional cars, auto insurers rarely seek compensation for claims that they have paid from product liability insurers – a process termed subrogation. The vast majority of accidents involving conventional cars are the result of human error; only a tiny percentage of claims involve equipment failure resulting from manufacturing defects.

When an ADS is determined to have been at fault in an accident, the cause(s) will likely be defective maintenance by the vehicle owner, defective equipment or a flaw in the software in the vehicle – either as sold or a software update. Two of these three accident causes will probably trigger claims against the initial product manufacturer(s) and/or the entity providing the software updates, if different than the initial product manufacturer. The automated services provider ("ADP") is likely to be either the initial product manufacturer or the entity providing the software updates (or both).

Auto Liability Insurance and the "At-fault" ADS Under Auto Policies

This section discusses issues arising under the current forms of auto liability insurance where a ADS failure was the sole cause of an accident or causally contributed to an accident. For convenience, these scenarios refer to an "at-fault ADS." This terminology is not intended as an assertion that the ADS, as distinguished from the equipment manufacturer, a parts supplier or a software provider, was the "person" at fault.

Liability policies provide coverage when a person covered under a policy is at fault for a risk covered by the policy. Private passenger auto liability insurance policies typically cover the owner of the vehicle, members of the household (unless they are expressly excluded from coverage) and permissive users of the vehicle.

HAV owners will continue to carry private passenger auto coverage. State financial responsibility laws are unlikely to be repealed for HAV owners. For Level 3 cars and Level 4/5 cars that have a human operated mode, owners will need liability insurance as a matter of prudence as well as compliance with financial responsibility laws. Even with dedicated Level 4/5 cars, there is the potential for accidents not involving ADS operation that would be within the scope of risks covered under an auto insurance policy – admittedly the imagined accident scenarios involve unusual circumstances. There will also still be a need to carry coverage for damage to the vehicle itself, collision coverage for damage to the HAV caused by an accident and comprehensive coverage for other perils such as hail and falling objects. Such coverage will be required by lenders providing financing for the purchase of the vehicle.

If a person covered under an auto policy is sued for a covered risk where the ADS was at fault, the auto insurer will provide a defense unless there are unusual circumstances. However, the insurer will only be required to pay the liability claim to the injured party if someone covered under the policy was a fault. Where the cause of the ADS failure is negligent maintenance by the owner or failure to accept software updates, the auto policy would be expected to pay the liability claim.

If the accident while the ADS was in control of the vehicle did not involve owner negligence, the injured party will not be able to collect from an owner's auto policy. The injured party will be left with a product liability and/or negligence claim against the initial equipment manufacturer or entity responsible for software updates. Alternatively, a court may adopt one of a range of contrived theories to find coverage under the private passenger auto policy. Possible examples are negligence by the owner in purchasing a vehicle with a product defect or a fiction in which the ADS is deemed to be a permissive driver.

At least initially, HAVs are likely to be comparatively pricey cars, purchased by comparatively affluent people who carry auto policy limits well above the statutory minimums. Fleet coverage for HAVs under commercial auto policies may also have robust coverage limits. There may be significant variation in commercial auto policy requirements for different types of fleets and in different jurisdictions. TNC insurance requirements are generally established at the state level. Taxi insurance requirements more often are set by local governments. Some municipalities require high coverage limits for taxis; others only require the minimum amount under the financial responsibility law.

Different states are likely to adopt different approaches. By analogy to the extensive case law involving conventional cars, different courts in the same state are likely to adopt different approaches resting on minute factual differences.

The At-fault ADS and Class Actions

We don't yet know whether at-fault ADSs will typically generate single accident with unique facts or multiple accidents caused by a single defect. If multiple accidents caused by a single defect is the dominant

pattern, then class actions may be a viable mechanism for recovery by injured persons. If at-fault ADS accidents tend to have relatively unique causes and fact patterns, then the injured party may need to file a product liability law suit.

Section (8)(a)

No Fault ADP Coverage Under Section 8(a)

The draft discussed at the December meeting requires the ADP to carry no-fault coverage in an amount equal to the minimum auto insurance coverage (or financial responsibility amount) in the state. The rationale is to provide some coverage for minor accidents caused by ADS failures without the need for individual owners to bring product liability lawsuits.

Most auto no-fault systems apply a “threshold” test that must be met before an accident victim can bring a tort action. In some states the threshold is met by having medical expenses that exceed a certain dollar amount, but a “verbal” threshold is considered more effective requiring that the injury cause a significant period of disability or permanent injury before a tort claim can be pursued. It appears that the mandatory ADP no-fault coverage would not have such a requirement, given that it is intended to provide a layer of coverage that would be available whenever an accident occurred when the ADS was in control of the vehicle.

While the ADP no-fault coverage would apply whether or not the owner's negligence contributed to the accident, there still would need to be a determination that the ADS was in control of the vehicle. The ADP no-fault policy would not provide coverage when a ADS equipped vehicle was being operated under human control. This coverage feature would likely mitigate at least some of the problems associated with existing no-fault auto insurance systems.

Possible Legislative Responses to ADS Liability in the Absence of a ADP No-Fault Requirement

Based on the recent history of transportation network company ("TNC") insurance requirements, state legislatures may want to impose insurance requirements for new transportation modes operated by commercial enterprises that are higher than the minimum statutory limits. States generally have resisted allowing local governments to set TNC insurance requirements. This pattern is seen even in states that allow municipalities the discretion to set taxi insurance coverage limits at the statutory minimum, at a higher level than provided by most private passenger auto policies or anywhere in between. In the absence of a no-fault provision in a uniform law, it is unclear whether a legislature would impose a fleet ADS insurance requirement on the fleet owner or on the ADP and whether the insurance would be structured as no-fault or liability coverage.

In the absence of a uniform law provision requiring ADPs carry no-fault coverage, there is considerable uncertainty regarding how state legislatures would address ADS coverage requirements for vehicles sold to individuals. The uncertainty includes whether any new coverage requirements would be required for at-fault ADSs, whether a new coverage requirement would be implemented through a private passenger auto insurance endorsement or through the imposition of a new insurance coverage on the entity providing software updates or some other entity involved in the manufacture or distribution of the HAV. It is likely that different states would adopt different solutions. However, it is not clear that the existence of different insurance requirements would impose an impediment to the adoption of HAVs.

Tying the ADS No-Fault Coverage to Minimum Statutory Limits

Section 8(a) creates a requirement that the ADP carry mandatory no-fault coverage with the same limits as the minimum auto liability policy in the state. State financial responsibility laws require that owners of automobiles purchase insurance or otherwise demonstrate the financial capability to pay damages if they are found to be at fault. Financial responsibility laws vary both in the permitted ways to demonstrate financial responsibility; however, auto insurance is the most widely used method of satisfying financial responsibility requirements. The minimum auto limits vary by state. Minimum limits applicable to private passenger auto are shown in Attachment A. In low minimum limit states the ADP no-fault policy would only cover very minor accidents.

Where an accident with an at-fault ADP involves more than trivial injury, the injured party will either need to bring a product liability claim against the manufacturer(s) or, perhaps, a negligence suit against an update service provider that is not a manufacturer, or press a claim against the owner of the vehicle with the at-fault ADP. This Note will not delve into the nuanced question whether the claim against provider of update services will fall within product liability, software errors and omissions coverage or other commercial liability products.

Requiring that the ADP carry a minimum limits no-fault policy may not significantly change the odds that courts will adopt ingenious theories to find coverage under the owner's private passenger auto policy. Existing no fault auto insurance regimes have considerable problems with fraud and abuse, a factor that should be considered before implementing a similar program for HAVs.

Low Limits ADP Hybrid Assumed Liability/Liability Coverage

Yet another approach would be to require the ADP to carry low limits assumed liability/liability coverage that would expressly apply whenever the ADS was at fault, irrespective of whether the ADP was responsible for the ADS failure. In contrast to the ADP no-fault coverage, the ADP low limits assumed liability/liability coverage would not apply when the accident was the result of the owner's failure to maintain or failure to accept a software update. It would apply to accidents caused by equipment failure and faulty software, even where the ADP was not responsible for creating the equipment or software or putting it into commerce.

The ADP will likely, but not universally, have designed, manufactured or developed HAV equipment or software. In the ordinary course, the ADP will carry high limits liability and/or product liability coverage that would respond where its products were defective or where it was negligent. It is possible that the low limits mandatory ADP policy would be written as an endorsement to a product liability, errors and omissions or other liability policy. Alternatively (and perhaps more likely) the mandatory low-limits policy would be written on a stand-alone basis.

Both the no-fault and the low-limits ADP assumed liability/liability insurance requirements would require a determination that the ADS was in control of the vehicle at the time of an accident. The liability approach would require a further determination that the accident did not result from the owner's negligence. Under the no-fault approach, the ADP no-fault insurer would also have to determine whether there was owner negligence if it wanted to pursue a subrogation action against the owner's auto insurer.

Where an accident involves a product defect or defective software and the ADP is not the entity responsible for the defective equipment or software, a determination of the accident cause (or causes) will also be needed for a subrogation action against the liability insurer of the entity responsible for the defective equipment or software. If the determination of accident causation using operational data from the HAVs is relatively inexpensive, these determinations will be routine, even for low limits policies.

Need for Statutory Language Clarifying the Interaction of the Mandatory Low Limits Coverage and Other Policies

Any statutory provision requiring mandatory low-limits ADP coverage – whether no-fault or liability – will need to contain language clarifying that compliance with the minimum limits requirement does not cap the liability of the ADP for accidents where it would be liable in the absence of the mandatory low-limits insurance.

Clarification is also needed that the requirement that the ADP carry no-fault or assumed liability with low limits does not create ADP liability for amount in excess of those limits, where the ADP would not be liable in the absence of the mandatory low-limits insurance provision.

Express Inclusion of Coverage for the At-fault ADS in Private Passenger Auto Policies

Inclusion of mandatory coverage for at-fault ADSs as an endorsement to a private passenger auto policy is another option, but may prove problematic. There may be legislative resistance to requiring individual auto owners to purchase liability coverage for the benefit of at-fault commercial entities.

From an insurance regulatory perspective, in some states it could be difficult for insurers to secure approval of this coverage and to secure adequate premiums for the product. As discussed above, coverage for at-fault ADSs will generate a higher percentage of administrative expenses per claim than claims involving conventional cars. States that require prior approval of auto insurance rates often impose either formal or informal limits on the percentage of premiums allotted to administrative expenses. If insurers believe that they cannot get adequate premiums for ADS coverage because it generates a high percentage of administrative expenses relative to claims payments, they will be unwilling to write the coverage.

ADS claims patterns are likely to differ from conventional auto claims pattern in other respects. If the dominant claim pattern involves multiple accidents caused by a single defect, then incidents will be rare (because at-fault ADSs are rare events) but the number of claims resulting from an incident will be large. Pricing models for auto liability insurance does not involve catastrophe factors. (Wind storm and hail catastrophes are a minor factor in the pricing of comprehensive auto coverage.)

Subrogation by Insurers

Where a claim involving at-fault ADS is paid by a private passenger or commercial auto insurer or by an ADP insurer, the insurers will seek subrogation against a product liability insurer whenever it is cost-effective to do so. Subrogation claims involving single defects that caused multiple accidents are more likely to be pursued, as are subrogation claims where the insurer made a large claim payment. This suggests that auto insurers that are required to pay large claims involving at-fault ADSs will be more likely to seek subrogation for one-off defects. Insurers writing ADP coverage are more likely to seek subrogation only where there are multiple minimum limits claims arising from a single defect.

For accidents where the owner failed to maintain the ADS, the private passenger auto insurer would be required to pay the claim, as its insured was at fault. As drafted, the definition of "automated operation insurance" appears to permit auto insurers that pay claims for HAV accidents involving negligent maintenance to seek subrogation from the ADP no-fault insurer up to the limits of the no-fault policy.

Need to Amend the Insurance Code

Penalties for driving without the minimum required auto insurance limits (or otherwise satisfying the financial responsibility laws) are typically found in the states' motor vehicle code. However, in some states the minimum auto insurance requirements are set forth in the state insurance code, rather than the vehicle code. For example, in California, the minimum auto coverage requirements are in Insurance Code §11580.1; the penalty for driving without insurance is in Vehicle Code §16029. In states where mandatory auto insurance requirements are placed in the insurance code, the drafting notes to insurance provisions in the proposed uniform law will need to address changes to the insurance code as well as the vehicle code.

Creation of "automated operation insurance" as a new form of no-fault coverage would probably require the addition of new provisions to insurance codes in many states, as this would be a novel form of coverage. A provision requiring ADPs to carry low-limits ADS hybrid assumed liability/liability insurance that included coverage for assumed liabilities could also require new insurance code provisions; but is more likely to fit with existing insurance code provisions relating to commercial lines insurance.

Even in states where the minimum mandatory auto limits are found in the vehicle code, the creation of an ADS endorsement to the private passenger auto policy would likely require the amendment of various insurance code provisions relating to private passenger auto coverage.

Where statutory changes are not required to accommodate new forms of HAV insurance, there may be some need for modification to existing insurance department rate review regulations or premium rate filing templates. There also may be need to modify claims handling regulations and auto repair regulations relating to use of operational data, repair shops qualified to repair ADS systems and use of non-OEM parts. However, many of these issues will arise with sophisticated Level 2 vehicles and are not unique to HAVs.

Section 8(b)

Section 8(b) and section 2 (8) require that the ADP provide a surety bond or a cash deposit for each HAV (other than HAVs where the ADP is the owner). The draft suggests a surety bond or cash deposit of \$10,000 per vehicle. The surety bond/deposit could be paid upon revocation of the registration of the HAV.

There is no time limit on the period in which the ADP must maintain the surety bond or cash deposit. As drafted, the ADP would be required to maintain the surety bond on deposit as long as a given HAV was registered. As drafted, the surety bond or cash deposit would be paid out regardless of the reason that the registration was withdrawn. These issues could be addressed by specifying a short time frame and deregistration relating to specified ADS safety issues.

Other issues are more intractable. The party or governmental entity that would hold the cash deposit is not specified. It is unclear whether the individual owner would be party named on the surety bond. If yes, then the surety bond would need to be reissued whenever an HAV is sold. If a governmental entity would hold the surety bond, then funding would need to be allotted to the designated agency to support the necessary record keeping and implementation. State legislatures will likely resist a new unfunded mandate.

The cash deposit requirement would increase the cost of each vehicle by approximately the amount of the required deposit. The surety bond would also increase the cost of the vehicle by an amount that would depend on the surety insurers' assessment of the ability of the ADP to reimburse the surety insurer in the event of a deregistration. ADPs that are large and well established will likely be able to get surety bonds for a much lower price than newer and/or small entities. Thus, the guarantee of a modest payment to the owner of an HAV in event the vehicle is deregistered could create an unlevelled playing field. The higher surety bond cost would not necessarily reflect an assessment by the surety insurer that the newer and/or

smaller entity is more likely to produce vehicles that would trigger a deregistration, but just the existence of a deeper pocket.