

# AT ISSUE



## Table of Contents

- 1 **Ride Sharing: The Future of Transportation Provider Services**
- 3 **Drone Policies Are Up in the Air**
- 4 **Autonomous Vehicles: Driving into the Future**



## CALENDAR

- |          |                                                                                       |
|----------|---------------------------------------------------------------------------------------|
| 9/22/14  | <b>Child Protection Study Comm.</b><br>10:00 a.m., 125 CAP                            |
| 9/25/14  | <b>Joint Meeting on Clean Water Act Rule Change Proposal</b><br>9:00 a.m., 341 CAP    |
| 9/25/14  | <b>Long-Term Aquifer Study Comm.</b><br>1:00 p.m., 450 CAP                            |
| 9/30/14  | <b>Joint Comm. on Critical Transportation Funding</b><br>10:00 a.m., Augusta          |
| 10/1/14  | <b>Joint Comm. on Prescription Medical Cannabis</b><br>1:00 p.m., GA Gwinnett College |
| 10/1/14  | <b>Joint Comm. on Critical Transportation Funding</b><br>TBD, Savannah                |
| 10/6/14  | <b>CMO Credentialing Study Comm.</b><br>1:00 p.m., Moultrie                           |
| 10/22/14 | <b>Joint Comm. on Prescription Medical Cannabis</b><br>1:00 p.m., Augusta             |
| 11/12/14 | <b>Joint Comm. on Prescription Medical Cannabis</b><br>1:00 p.m., Room TBD, CAP       |

## A Message from Senator Shafer



This edition of *At Issue* deals with evolving technology and the legislative and regulatory challenges that come with it.

Uber and other transportation service providers have become a highly popular mode of transportation, challenging existing business models and forcing us to rethink regulatory structures.

Self driven vehicles, once inhabiting the realm of science fiction, are now a technological reality. Drones have the potential to revolutionize business deliveries and operations, but they raise safety and privacy concerns as well.

The upcoming Legislative Session has the potential to be a watershed year for legislation addressing exciting new technologies.

David J. Shafer, Senate President Pro Tempore

## Transportation Issues

### Ride-Sharing: The Future of Transportation Provider Services?

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In 2008, while attending a Paris technology conference, Travis Kalanick and Garrett Camp came up with the idea of creating a time-share service for fancy, expensive cars. They would hire drivers and make rides available via a mobile software application. One year later, the two had founded Uber which, along with similar companies such as Lyft and Sidecar, allows a passenger to request a ride from an independently-contracted driver with their smartphone or tablet through the Uber app, and then track the vehicle on a map as it approaches its location. Payment is billed to the passenger's credit card, PayPal account, or Google Wallet at the end of the trip, without a need to tip.

Unlike existing transportation services, there is no need to call a dispatcher or hail a taxi on the street, resulting in very short wait times. Uber recruits partners, either limousine companies or individual drivers, all of whom own their own cars and take responsibility for the licensing, vehicle, gas, and auto insurance, and trains them on using the software. Drivers normally take 80 percent of the fare. The company has launched a half-dozen services with different fee structures in various cities, including Atlanta, such as UberTAXI, a taxi-hailing service; UberX, a lower-cost limo service that has cars like the Honda Civic or the Toyota Prius; and UberSUV, a pricier service featuring cars like the Cadillac Escalade. In Paris, UberMOTO even lets customers call for motorcycle taxis. Uber sets rates using a combination of minimum charges, time, and mileage. However, prices increase during periods of heavy demand.

Perhaps the most pressing issue facing ride-sharing services today is the *(continued on page 2)*

*(Ride Sharing - continued from page 1)* challenge of insuring their drivers. Until recently, ride-share drivers were responsible for any accident or damage that occurred during a trip. Most drivers assumed they could use their personal insurance policies to cover any costs. However, personal auto insurance policies almost universally contain a “livery exclusion” which excludes losses from accidents that occur while a person is operating a vehicle to drive paying passengers. Further, if a vehicle is financed and has yet to be paid off, the lack of insurance could put an auto loan in default because the lender’s collateral is not protected against loss. This is in stark contrast to existing transportation services, which must provide commercial liability insurance for drivers and vehicles at all times.

Uber and Lyft have begun the process of covering their drivers with commercial insurance, providing a \$1 million policy that covers accidents during trips that can supplement or supersede a driver’s insurance; however, drivers are not covered when they do not have a passenger in the vehicle. This insurance gap resulted in a lawsuit in California, when an Uber driver, who had turned on his Uber app and was searching for a fare on New Years Eve, struck and killed a child in a San Francisco crosswalk. This tragedy sent shockwaves throughout the community, but Uber was quick to deny any liability in the accident, pointing out that the driver had not yet picked up a passenger and stating, “this tragedy did not involve a vehicle or provider doing a trip on the Uber system.”

This incident, and others like it, has caused state and local officials to review the legality of these ride-sharing operations. While some cities have embraced the services, others are seeking legislation to curb their operation. Several cities, such as New Orleans, Portland, and Miami, have banned ride-sharing companies entirely. Last year, California’s Public Utilities Commission (PUC) amended its regulations to create a new class of business for transportation network companies. These companies must obtain a \$1,000 permit from the PUC, provide \$1 million in commercial insurance coverage to their drivers from the time a call for service is accepted until a passenger leaves a driver’s car, institute driver training, conduct background checks on drivers, and inspect all vehicles. Further, after months of negotiations, the California legislature passed a bill on August 28th that: establishes a personal insurance firewall to ensure personal insurance auto policyholders will no longer cover the commercial activity of ride-sharing companies, beginning July 1, 2015; requires \$50,000 per individual and \$100,000 total primary liability coverage during periods in which drivers are logged on but not handling service calls, as well as \$30,000 in property damage, with excess coverage of \$200,000; and codifies the \$1 million commercial insurance requirement set forth in the PUC’s regulations that were passed last year. The bill is expected to be signed by Governor Brown.

Seattle passed an ordinance in March capping the number of drivers that can be on a system at one time, imposing new insurance and safety regulations, and adding 200 new taxi licenses (which is the city’s first addition of licenses in 23 years). However, an opposition coalition gathered enough signatures to suspend the newly-imposed ordinance. Then, Mayor Ed Murray intervened, bringing together city leaders, taxi companies and ride-share services to find a compromise. On July 14th, the City Council voted 8-1 to approve legislation that provides a new regulatory framework for ride-sharing companies like Uber. The legislation essentially codifies the compromise reached between the parties in June that removed a 150-vehicle cap for each company, established revised insurance requirements for ride-sharing companies, gave hailing rights to for-hire companies, set a 10-cent surcharge on each ride to fund wheelchair-accessible taxis, and added 200 taxi licenses over the next four years. The owners of these licenses will receive an ownership stake reminiscent of New York’s taxi medallions.

Colorado’s Senate Bill 125, which passed in April and was signed into law in June, authorizes the state’s PUC to exercise limited regulatory authority over transportation network providers, which are defined as companies that match drivers and passengers through a digital network, such as a mobile phone application, for transportation from an agreed-upon point of origin to an agreed-upon destination. While the bill exempts transportation network providers from most of the PUC’s authority over rates, entry, operation requirements, and other general requirements governing common and motor carriers, it does require the providers to obtain a permit from the PUC. The PUC regulates permit holders with respect to safety conditions, insurance requirements, and driver qualifications. Further, the PUC has the authority to take action against a transportation network provider for any violations, including the authority to issue a cease-and-desist letter, suspend or revoke a permit, or impose civil penalties. The Florida legislature considered two bills this year that would have removed local governments’ authority to regulate non-metered vehicles, such as limousines and ride-sharing companies, hired in advance. However, both bills died on May 2nd.

Legislation has been introduced in Pennsylvania that allows ride-sharing companies to operate in the state; both Uber and Lyft have temporary permits from the state’s PUC to operate only in Pittsburgh/Allegheny County for 60 days. The temporary permits will expire after the 60-day time period unless the companies meet certain insurance requirements. Arizona Governor Jan Brewer vetoed House Bill 2262 in April, which created new regulations for ride-share networks relating to insurance requirements and background checks, because the bill exempted these networks from the traditional commercial insurance and licensing requirements that taxis and limousines are subject to under state law.

In Georgia, motor carriers, such as limousine carriers, that operate a prearranged service regularly rendered to the public for a flat rate must register and obtain a certificate from the Department of Public Safety (DPS), as well as satisfy state and federal insurance requirements. Taxi cabs, however, are regulated through local municipalities. For example, the City of Atlanta requires taxicabs to have a certificate of public necessity and convenience, or CPNC, while companies and drivers are required to have company *(continued on page 6)*

## Drone Policies Are Up in the Air

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Only a few years ago, the prospect of drones entering civilian life seemed torn from the pages of a science fiction novel. Today, their use is anything but unlikely: according to the National Conference of State Legislatures (NCSL), drone use extends to law enforcement, land surveillance, wildlife tracking, search and rescue operations, disaster response, border patrol, and photography. The Federal Aviation Administration (FAA) estimates that there will be around 7,500 Unmanned Aircraft Systems (UAS) in the United States within five years. Because of the inundation of potential drone usage across a number of different fields, policymakers at the federal and state levels have begun to consider how these devices will operate in our daily lives.

### Historical and Modern Drone Usage

The use of unmanned aerial vehicles (UAVs), also known as UAS or drones, dates back to the nineteenth century, but the purpose of their use has changed rapidly in the last few years. Both Confederate and Union forces used unmanned aerial bombers during the Civil War by loading hot air balloons with explosives. The limited successes of these early weaponized UAVs preceded a different use during the Spanish-American War of 1898, during which kites were used to take aerial surveillance photographs. These early prototypes seem antiquated compared to current drones, which range from insect-size to wingspans comparable to a Boeing 757. These historical uses of UAVs demonstrate their genesis in warfare, but current UAV use is rapidly expanding to non-military, commercial purposes.

Current usage of drones varies widely. The National Oceanic and Atmospheric Administration and NASA, along with Northrup Grumman, collaborated to conduct a three-year experiment on using long-range UAVs to track and even enter the center of storms, hoping to improve weather forecasts. Smaller UAVs can survey landscapes to create three-dimensional maps from drone images, a technological effort used after Hurricane Sandy to survey damage and by large festivals seeking to monitor crowd size for security reasons. Farmers can use UAVs to scan crops for disease or tend to farmland that is not easily accessible by more traditional, larger agricultural equipment.

Other industries' use of drones has raised questions by both the government and the public. Some realtors were using UAVs to pique potential buyers' interest with aerial tours of homes or properties, but earlier this summer, the FAA persuaded realtors against using UAVs in this way, leaving their commercial use up in the air. Likewise, law enforcement use of UAVs for surveillance has caused many to express concerns over privacy. The regulatory landscape of UAV use awaits federal regulation in the coming year, but states are already taking action on drone usage in an effort to protect individual rights and in anticipation of their more widespread usage.

### Federal Regulation of Drone Use

The 2012 Federal Aviation Administration Modernization and Reform Act requires the FAA to integrate UAS use into civilian airspace by 2015. To complete this task, the law also charges the FAA with establishing six test sites where operating standards for UAS can be researched and developed. On December 30th, 2013, the FAA announced its selected test sites, which are currently in operation and will continue through February 2017. On November 7th, 2013, the FAA released its first annual roadmap for the safe integration of unmanned aircraft systems into the nation's airspace. In July of this year, the FAA issued an Air Traffic Organization Policy to consolidate all current regulations on UAS in the national airspace into one document. Until commercial UAVs are integrated into U.S. airspace, their use is, for the most part, not permitted unless they are specifically authorized. Even though a number of businesses anticipate the September 2015 integration, a recent Department of Transportation Inspector General audit found that technological barriers, the lack of an established regulatory framework, and the ineffective collection and analysis of safety data by the FAA will prevent the agency from meeting the September 2015 deadline set by Congress for integration. Even before the prognosis of the failure to meet this deadline, states have been making strides in preparation for increased UAV use across a number of industries.

### State Regulation of Drone Use

According to NCSL, 35 states have considered bills addressing UAS or UAVs in 2014. Common issues addressed in the legislation include: defining a UAS, UAV, or drone; how they may be used by law enforcement or other state agencies; how they may be used by the general public; regulations for their use in hunting game; and the FAA UAS test sites. For example, Tennessee enacted Senate Bill 1892, which makes it a Class C misdemeanor for a person to use UAS to intentionally conduct surveillance of an individual or his or her property. It also makes it a crime to possess those images (Class C Misdemeanor) or distribute and otherwise use them (Class B Misdemeanor). The law identifies 18 lawful uses of UAS, including the commercial use of UAS under FAA regulations, professional or scholarly research, and for use in oil pipeline and well safety. Senate Bill 1777, also enacted by Tennessee, *(continued on page 6)*

# Autonomous Vehicles: Driving into the Future

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Autonomous vehicles are driverless vehicles capable of fulfilling the navigational and transportation capabilities of a traditional car. In theory and sometimes in practice, an autonomous vehicle is capable of sensing its environment and navigating on its own. In autonomous cars, a human may choose a destination, but is not required to perform any physical operation of the vehicle.

Autonomous vehicles navigate and travel using various technologies such as radar, GPS, embedded roadway sensors, Light Detection and Ranging (LIDAR or LADAR), and computer vision and recognition. Advanced control systems interpret the information to identify appropriate navigation paths, as well as obstacles and relevant signage.

Implementation of autonomous-like technologies into the general automobile market has been incremental in order to allow developers to learn about the limitations of such technologies and to control against potential liability, as well as to progressively accustom human drivers to relinquishing control of the vehicle. For example, technologies such as small millimeter wave radars, low-cost LIDAR scanners, and line-detecting computer vision allow capabilities that we know today as adaptive cruise control, automatic parking, electronic stability control, and lane-keeping. The technologies may vary across manufacturers and will be updated and improved as the years go by, but ultimately their capabilities are what enable the vehicle to self-drive.

### Legislative and Regulatory Progress

Some believe that it is debatable whether legislation is even necessary to authorize the use of driverless cars on public roadways since most states, including Georgia, have no laws requiring vehicles to be operated by a human driver. All that is required is that the driver possesses a valid driver's license. However, without a driver, how would a traffic citation be issued in the event of a violation?

In June 2011, Nevada became the first U.S. state to enact legislation explicitly allowing the testing of autonomous vehicles on public roadways. The Nevada law went into effect on March 1, 2012 after the state's DMV adopted regulations on the licensing of such vehicles. The first license and vehicle registration was issued in May 2012 to a Toyota Prius modified with Google's experimental driverless technology. As of September 2014, four U.S. states, Nevada, Florida, California, and Michigan, plus D.C., have enacted laws permitting the testing of driverless cars. Similar legislation has been introduced in eighteen other states, including Georgia.

Senate Bill 369, which failed to pass in 2014, would have authorized the testing of autonomous vehicles on public roads if they:

- Meet federal standards;
- Have the means to engage or disengage the autonomous technology;
- Have the means to visually indicate if the vehicle is operating in autonomous mode;
- Are able to alert the operator of the vehicle to take control if the autonomous technology fails; and
- Operate in compliance with the uniform rules of the road.

Unless tested on a closed course, a properly-licensed human driver must be present in order for an autonomous vehicle to be tested in Georgia. The person performing the testing must submit a surety bond or liability insurance coverage of at least \$5 million to the Department of Revenue. If a vehicle is converted to an autonomous vehicle by a third party, the original manufacturer will not be held liable due to a defect in the vehicle caused by the conversion.

Although the federal government has yet to invoke any regulatory authority over autonomous vehicles, the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) has released its "Policy on Automated Vehicle Development" which provides guidance to states permitting testing of emerging vehicle technology, ensures that their legislation does not inadvertently impact current vehicle technology, and that the testing of self-driving vehicles is conducted safely. NHTSA also defines vehicle automation as having five levels – from "No-Automation" to "Full Self-Driving Automation."

### Benefits

Autonomous vehicles are still in a testing and development stage, but their developers emphasize that they could produce several direct advantages:

- Fewer traffic collisions, due to the autonomous system's increased reliability and decreased reaction time compared to human drivers;
- Increased roadway capacity and reduced traffic congestion, due to the reduced need of safety gaps and the ability to better manage traffic flow;

- Relief of vehicle occupants from driving and navigation chores;
- Removal of constraints on occupants' state – it would not matter if the occupants were too young, too old, distracted, intoxicated, or otherwise impaired. Furthermore, disabilities would no longer be an issue;
- Alleviation of parking scarcity as cars could drop off passengers, park far away where space is not scarce, and return as needed to pick up passengers;
- Elimination of redundant passengers – humans are not required to take the car anywhere, as the robotic car can drive independently to wherever it is required. For example, truck drivers would no longer be needed thus reducing product transportation costs;
- Greater suitability for car-sharing and taxi services;
- Reduction of space required for vehicle parking; and
- Reduction in the need for traffic police and vehicle insurance.

### How soon can driverless cars become a common issue in the states?

The recent state-level efforts are not only facilitating the increased research and development of this technology, they are also laying the groundwork for the expected creation of federal regulations governing autonomous vehicles. Estimates vary widely on when this technology will move from testing to public availability. Google, which has a current fleet of vehicles that has managed to drive over 700,000 miles on public roads without humans having to take the wheel, is hopeful that it will be within the next five to ten years, but most other estimates range between a decade and 20 years before widespread use will be attainable and affordable.

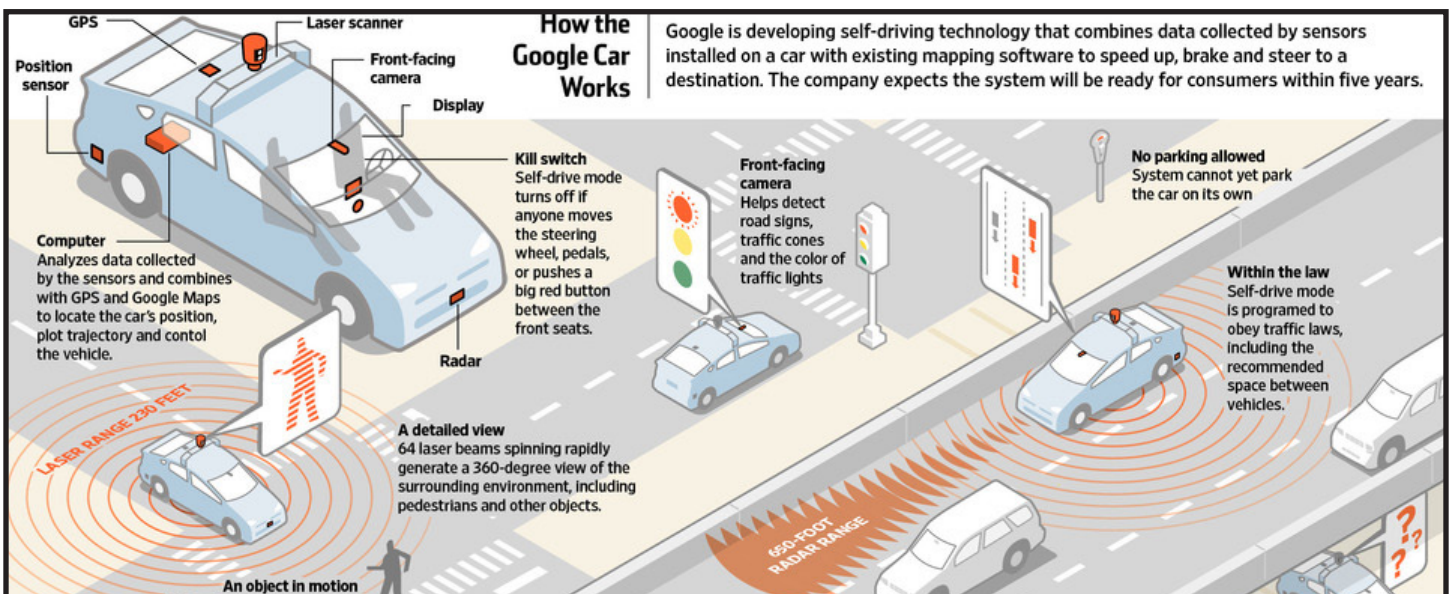
### Potential Obstacles

Cost, public acceptance, changes to transportation infrastructure, and liability are some of the potential obstacles facing driverless cars. Since the technology is advancing rapidly, cost is the key to when driverless cars will become a reality for the average consumer. As it stands, the cost of current test vehicles is a minimum of six figures for just the hardware and software and excludes the cost of the vehicle.

Another obstacle is social; autonomous driving may not be for everyone, since some people enjoy driving and do not want to give up control. It is difficult to imagine an Aston Martin owner, or any performance car owner, equipping their vehicle with driverless technology. What would be the point of owning a fun-to-drive vehicle if it is going to drive itself?

Not all the technical hurdles involve the autonomous systems. Cars will need a higher level of mechanical reliability. What happens if an unoccupied driverless car has a breakdown or tire blowout while in operation? Also, since cars may likely travel more closely together than they do currently, fail-safe braking is critical in order to avoid a chain collision. There may also be an added financial burden incurred by the federal and state governments since sensors will need to be imbedded in the road. Without road sensors, the technology can sense the painted lane marking and stripes only in clear weather which is a major reason why warm weather states such as Nevada, California, and Florida were chosen as test states. Other considerations may also involve new signage, traffic signals, and the construction of autonomous-only lanes.

Among other unsolved problems, testers have yet to drive in snow, while safety concerns preclude testing during heavy rains. Moreover, no testing has been conducted in large open parking lots or multilevel garages. Although a car's video cameras can detect the color of a traffic light; developers are still working to prevent them from being blinded when the sun is directly behind a light. How will an autonomous vehicle react when it encounters a complex construction zone? *(continued on page 6)*



*(Drone Policies - continued from page 3)*

makes it a Class C misdemeanor for any private entity to use a drone to conduct video surveillance of a person who is hunting or fishing without his or her consent. In Tennessee, Class C misdemeanors are punished by up to thirty days imprisonment and/or up to a \$50 fine, while Class B misdemeanors are punished by up to six months imprisonment and/or up to a \$500 fine.

In 2013, 43 states introduced 130 bills and resolutions addressing UAS issues. At the end of the year, 13 states had enacted 16 new laws and 11 states had adopted 16 resolutions. Of significance, Florida enacted Senate Bill 92, which defines a drone and limits its use by law enforcement. Under the bill, law enforcement may only use a drone if they obtain a warrant, there is a terrorist threat, or “swift action” is needed to prevent loss of life or to search for a missing person. The law also enables someone harmed by an inappropriate use of drones to pursue civil remedies and prevents evidence gathered in violation of the law from being admitted in any Florida court.

In Georgia, Sen. Josh McKoon introduced Senate Bill 200 during the 2013 Legislative Session. The bill would have required law enforcement to have a search warrant to use unmanned aircraft, defined as any aircraft operated without the possibility of direct human intervention within or on the aircraft, in search and seizures. A search warrant would not have been required under exigent circumstances or in a state of emergency which required swift action. The Attorney General would have been required to document all use of an unmanned aircraft for surveillance, including duration, flight path, mission objectives, and the names of places or persons subject to surveillance and aircraft. House Bill 560, also introduced in the 2013 Legislative Session, would have prohibited law enforcement from using unmanned aerial vehicles without a search warrant. House Bill 846, similar to Tennessee’s Senate Bill 1892, would have defined the lawful and unlawful uses of unmanned aircraft, along with the resulting penalties for any violations.

As more civilian uses for drones develop, legislators will be responsible for enacting policies that walk a fine line between privacy and public utility. As states attempt to codify best practices, we can expect drone legislation in Georgia during the 2015 Legislative Session. -AF/EF

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*(Driverless Cars - continued from page 5)*

Other issues not related to technology have yet to be answered, such as how to insure driverless cars, and how to integrate them with 20- and 30-year-old cars that still require human interaction. Liability is a potential issue with driverless vehicles – whom do you file a claim against if software fails and causes a traffic pile-up?

Although the technology exists today to manufacture autonomous vehicles, the practicality of deploying and operating them efficiently, safely, and affordably is still one to two decades away. -AA

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*(Ride Sharing - continued from page 2)*

permits. Background checks are performed on drivers, principals of companies, and CPNC owners. Vehicles are subject to semi-annual inspections, and companies are required to pay sales taxes. None of these requirements currently apply to companies like Uber.

Georgia House Bill 907, which was introduced but did not pass during the 2014 Legislative Session, would have required transportation referral service providers such as Uber to obtain a permit from DPS. Permit holders would have been required to conduct criminal background checks, retain liability insurance equal to that of limousine carriers, comply with local government ordinances relating to fare structure (rideshare fares would have been based on time and distance), implement driver training, and conduct safety inspections. Civil penalties were imposed for violations. House Resolution 1805, which did pass this Session, creates a House Study Committee on For-Hire Transportation Services to examine the manner in which government regulates existing and new forms of for-hire transportation services.

While Uber supports legislative efforts that create new regulations specifically designed for its company, it does not support any legislation that imposes the same requirements that are imposed on existing transportation service companies. These companies, however, argue that the state has a public safety interest in ensuring that companies like Uber are regulated the same. States will continue to struggle with how to balance entrepreneurial freedom with the need to protect basic health, safety, and welfare in the new “sharing economy” where individuals can share rides, or even rent out their apartments as short-term hotel rooms and borrow a person’s tools, pets, or fine art. -AF

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