

Date of Hearing: April 18, 2016

ASSEMBLY COMMITTEE ON TRANSPORTATION

Jim Frazier, Chair

AB 2866 (Gatto) – As Amended April 11, 2016

**SUBJECT:** Autonomous vehicles

**SUMMARY:** Requires the Department of Motor Vehicles (DMV) to adopt regulations for the testing and operation of autonomous vehicles without a driver in the vehicle and without a brake pedal, accelerator pedal, or steering wheel. Specifically, **this bill:**

- 1) Authorizes the testing and operation of autonomous vehicles without a driver in the vehicle and not equipped with a brake pedal, accelerator pedal, and steering wheel, pursuant to regulations adopted by DMV and subject to all other requirements of existing law.
- 2) Requires DMV to, by July 1, 2018, adopt regulations for the testing and operation of autonomous vehicles without a driver in the vehicle and autonomous vehicles not equipped with a brake pedal, accelerator pedal, or steering wheel.
- 3) Provides that the regulations adopted by DMV shall remain in effect until four years after their effective date.
- 4) Requires DMV to report on the results of the autonomous vehicles deployed under these regulations no later than 6 months after they are no longer in effect.

**EXISTING LAW:**

- 1) Authorizes the operation of autonomous vehicles on public roads for testing purposes under certain circumstances specified in regulations adopted by the DMV.
- 2) Requires DMV, by January 1, 2015, to adopt regulations setting forth requirements for the application to operate autonomous vehicles on public roads for non-testing purposes.
- 3) Prohibits the operation of autonomous vehicles on public roads for non-testing purposes unless the manufacturer of the vehicles submits an application to DMV that is approved pursuant to DMV regulations.
- 4) Requires the application submitted to DMV for the operation of autonomous vehicles on public roads for non-testing purposes to include a certification from the manufacturer that the vehicle's autonomous technology allows the operator to take control through the use of the brake, the accelerator pedal, or the steering wheel and that the vehicle's autonomous technology meets and does not make inoperative any Federal Motor Vehicle Safety Standards (FMVSS) and all other applicable safety standards and performance requirements established by state and federal law.
- 5) Requires DMV to approve an application submitted by a manufacturer for the operation of autonomous vehicles for non-testing purposes if DMV finds that the applicant has submitted all information and completed testing necessary to satisfy DMV that the autonomous vehicles are safe to operate on public roads and the applicant has complied with all requirements specified in DMV regulations.

- 6) Authorizes DMV to impose additional requirements it deems necessary to ensure the safe operation of autonomous vehicles if those vehicles are capable of operating without the presence of a driver inside the vehicle, including the presence of a driver in the driver's seat of the vehicle, if DMV determines that such a requirement is necessary to ensure the safe operation of those vehicles on public roads.
- 7) Requires DMV to notify the Legislature of the receipt and approval of an application from a manufacturer seeking to operate autonomous vehicles capable of operating without the presence of a driver inside the vehicle on public roads for non-testing purposes.

**FISCAL EFFECT:** Unknown

**COMMENTS:** In response to arguments for the traffic safety benefits of increasingly automated vehicle technology, the Legislature passed and the Governor signed legislation requiring DMV to adopt regulations for the operation of autonomous vehicles on California's public roads in 2012 [SB 1298 (Padilla), Chapter 570, Statutes of 2012]. The rollout of DMV's regulations was separated into two stages: regulations for insurance requirements for the purposes of testing autonomous vehicles and regulations for the full deployment of autonomous vehicles on California roads for non-testing purposes. Both sets of regulations were required to be adopted by January 1, 2015. DMV adopted testing regulations on May 19, 2014, and has yet to adopt regulations for the deployment of autonomous vehicles for non-testing purposes. DMV is reluctant to make a final regulatory action until it receives more input from the public and stakeholders.

The original legislation directing DMV to adopt these regulations includes several requirements for the operation of autonomous vehicles, including the presence of an operator inside the vehicle and the ability of the operator to take over control of the vehicle from the autonomous technology through the use of the brake, the accelerator pedal, or the steering wheel. Existing law also allows DMV to include any other testing, equipment, and performance standards that DMV concludes are necessary to ensure the safe operation of autonomous vehicles, with or without the presence of a driver in the vehicle. Early drafts of the DMV regulations for the operation of autonomous vehicles for both testing and non-testing purposes exclude the use of vehicles that are capable of operation without the presence of an operator inside the vehicle.

The author raises concerns with the current proposed contents of DMV's upcoming regulatory package, relating specifically to the prohibition on autonomous vehicles without a licensed driver in the vehicle, and without the specified technical attributes. The author believes that, by not allowing these types of vehicles to be tested or operated in California, DMV risks stifling technological innovation in the state and encouraging manufacturers advancing this technology to relocate to other states with less restrictive autonomous vehicle standards. Some estimates suggest that fatalities from motor vehicle accidents could fall by 90% and save \$190 billion once autonomous vehicles become prevalent in the state.

AB 2866 would authorize the operation of autonomous vehicles without a driver inside the vehicle and not equipped with a brake pedal, accelerator pedal, or steering wheel, pursuant to regulations that this bill would require DMV to adopt. Those regulations would be adopted by July 1, 2018 and would remain in effect for 4 years, after which DMV would report on the results of the testing and operation of these autonomous vehicles to the Legislature.

By directing DMV to include these types of autonomous vehicles in its regulatory framework, the author intends to keep the development of technology in California, and ensure access to autonomous vehicles for all Californians, particularly those who are unable to drive conventional motor vehicles. The author believes AB 2866 will enable the state to reap the economic and public health benefits of autonomous vehicles, which “have the potential to save Californians’ lives, time and money.”

DMV has undertaken a careful, thorough approach to adopting autonomous vehicle regulations since SB 1298 was signed by the Governor in 2012. The department has conducted numerous public hearings and workshops to receive input from manufacturers, technology companies, academics, privacy advocates, the disabled community, consumer groups, and other stakeholders. The approach that has been developed is incremental but has a heavy focus on ensuring that the vehicles that are operated on California’s roads are as safe as possible. Although DMV has yet to initiate the formal regulatory process for the operation of autonomous vehicles for non-testing purposes, it has used the time since its deadline to continue to engage stakeholders to work through the issues associated with creating a regulatory framework for a still-emerging technology and that has no analog in other states or at the federal level. As the department has articulated in the past, the technology is still ahead of the law in this area.

Out of concern for losing out on technological innovation and the corresponding economic and public health benefits, AB 2866 would force DMV to make larger strides in the development of its regulations by removing the department’s discretion to make incremental steps towards approving technologies that do not require the oversight of a licensed driver and physical override mechanisms in the vehicle. This concern is likely a valid one, as some major manufacturers of autonomous vehicles are already currently testing in other states.

Equally valid a concern is that the technology required for the operation of the vehicles specified in this bill may not yet exist at a level that could be widely deployed in a safe manner in California if new regulations were to be adopted. Manufacturers testing autonomous vehicles in California are required to report to DMV when the autonomous technology disengages due to technological failure or other conditions. DMV has received hundreds of disengagement reports stemming from a variety of conditions. For example, autonomous technology has yet to be proven infallible in poor weather conditions or when driving on the state’s dilapidated road infrastructure.

While questions remain on the negative impact of overly restrictive regulations or the status of the technology generally, this bill compels DMV to keep pace with the rate of technological advancement at the level that some manufacturers are arguing is necessary to keep the state competitive in attracting innovation. Previous versions of this bill requiring DMV to conduct a pilot with autonomous vehicles without a driver in the vehicle would have removed the operation of those vehicles from the existing safety, testing, and regulatory framework established by SB 1298. The current version of AB 2866 would merely require DMV to adopt additional regulations under that scheme, leaving that framework intact and in effect, including the requirement that all vehicles comply with all FMVSS. To the extent current FMVSS require the physical controls specified in this bill in most vehicles, autonomous or otherwise, and existing statute requires vehicles comport to those standards, these vehicles may not be able to operate in California until they are in compliance with federal requirements or receive a federal exemption. However, by conforming the new regulations with existing statute, AB 2866 minimizes the impact of directing DMV to initiate a new regulatory process. After the regulations are no

longer in effect and the department submits its report, the Legislature will have additional information with which to make a decision on the future of autonomous vehicles in the state.

The author may wish to consider future amendments authorizing DMV to use its existing regulatory process to the extent possible as a basis for its future regulations, in order to further expedite the process and encourage consistency between all autonomous vehicle rules.

*Federal developments:* In January 2016, United States Department of Transportation Secretary Anthony Foxx announced President Obama's Fiscal Year 2017 budget proposal to allocate nearly \$4 billion over ten years towards accelerating the development of autonomous vehicle technology through real-world pilot projects. Additionally, Secretary Foxx announced that the National Highway Traffic Safety Administration (NHTSA) will, within six months, both consult with industry and other stakeholders to develop guidance on the safe deployment and operation of autonomous vehicles, and consult with state partners, the American Association of Motor Vehicle Administrators, and other stakeholders to develop a model state policy on automated vehicles that offers a path to consistent national policy.

According to DMV, the department has been in constant communication with NHTSA on the topic of its autonomous vehicle regulations and will likely be able to easily comport its regulatory package to NHTSA's model state policy.

*Related legislation:* AB 1592 (Bonilla) authorizes the Contra Costa Transportation Authority to conduct a pilot project for the testing of autonomous vehicles under specific conditions. AB 1592 passed out of this committee on April 4, 2016 with a 16-0 vote, and passed off the Assembly Floor with a 75-0 vote. AB 1592 is currently awaiting assignment in the Senate Rules Committee.

AB 2682 (Chang) requires DMV, upon the development of a model state policy on autonomous vehicles by NHTSA, to hold public hearings on the model policy and consider, to the extent authorized by other law, conforming department regulations with that policy. AB 2682 passed out of this committee on April 4, 2016, with a 16-0 vote, and is currently awaiting a hearing in the Assembly Appropriations Committee.

*Previous legislation:* SB 1298 (Padilla), Chapter 570, Statutes of 2012, established conditions for the operation of autonomous vehicles upon public roadways.

## **REGISTERED SUPPORT / OPPOSITION:**

### **Support**

None on file

### **Opposition**

Consumer Watchdog

**Analysis Prepared by:** Justin Behrens / TRANS. / (916) 319-2093