CONGRESSIONAL BUDGET OFFICE
COST ESTIMATE

October 26, 2017

S. 1885
AV START Act

As ordered reported by the Senate Committee on Commerce, Science, and Transportation on October 4, 2017

SUMMARY

S. 1885 would clarify the federal role in regulating motor vehicles that can drive without a person controlling the vehicle. Those vehicles are defined in the bill as Highly Automated Vehicles (HAVs). The bill would require the National Highway Traffic Safety Administration (NHTSA) to complete several rulemakings and establish two advisory councils on HAV technology and consumer education. The bill also would require NHTSA and the Volpe National Transportation Systems Center (Volpe Center) within the Department of Transportation (DOT) to complete several studies on the issues surrounding the use of HAVs.

CBO estimates that implementing the legislation would cost $22 million over the 2018-2022 period, assuming appropriation of the necessary amounts.

Enacting S. 1885 would increase revenues from civil penalties; therefore, pay-as-you-go procedures apply. However, CBO estimates that those increases would total less than $500,000 over the 2018-2027 period. Enacting the bill would not affect direct spending.

CBO estimates that enacting S. 1885 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

S. 1885 would impose an intergovernmental mandate, as defined in the Unfunded Mandates Reform Act (UMRA), by preempting the authority of state and local governments to regulate the design, construction, and performance aspects of HAVs, unless such regulations are identical to federal regulations. The bill also would preempt any state regulation governing operator’s licenses for HAVs that discriminates on the basis of disability. Although it would limit the application of state and local laws and regulations, the bill would impose no duty on state or local governments that would result in additional spending or a loss of revenues.

S. 1885 would impose private-sector mandates as defined in UMRA on manufacturers of automobiles. Based on information about motor vehicle sales in the United States and information about current business practices from industry sources, CBO estimates that the cost of complying with those mandates would exceed the annual threshold established in UMRA ($156 million in 2017, adjusted annually for inflation).

ESTIMATED COST TO THE FEDERAL GOVERNMENT

The estimated budgetary effect of S. 1885 is shown in the following table. The costs of this legislation fall within budget function 400 (transportation).

	By Fiscal Year, in Millions of Dollars					
	2018	2019	2020	2021	2022	2018-2022
INCREASES IN SPENDING SUBJECT TO APPROPRIATION						
NHTSA						
Estimated Authorization Level	1	4	4	4	4	17
Estimated Outlays	1	3	4	4	4	16
Volpe Center						
Estimated Authorization Level	0	6	0	0	0	6
Estimated Outlays	0	4	1	1	0	6
Total Changes						
Estimated Authorization Level	1	10	4	4	4	23
Estimated Outlays	1	7	5	5	4	22

Note: NHTSA = National Highway Transportation Safety Administration.

BASIS OF ESTIMATE

For this estimate, CBO assumes that the legislation will be enacted before the end of 2017 and that the necessary amounts will be appropriated each year. Estimated outlays are based on historical spending patterns for similar activities.

National Highway Transportation Safety Administration

Based on an analysis of information from NHTSA, CBO estimates that the agency would need to hire about 20 new people to prepare the rules and reports required by the bill.

CBO expects that about one-quarter of those people would be hired in 2018 and the rest in 2019. Based on average wages and compensation for NHTSA employees and accounting for inflation, CBO estimates that each additional person would cost about $180,000 a year, on average. As a result, CBO estimates that those provisions would cost $14 million over the 2018-2022 period.

Under the bill, NHTSA also would need to create two new databases to make safety evaluations conducted by HAV manufacturers and the privacy policies of vehicle manufacturers available to the public. Based on information from the agency, CBO estimates that implementing those provisions would cost about $2 million over the 2018-2022 period.

Volpe Center

Section 4 would require the Volpe Center to complete a report to the Congress that identifies necessary safety standards for HAVs. Subsequently, NHTSA would be required to complete a rulemaking based on that report. Based on information from DOT, CBO estimates that enacting the provisions in section 4 would cost $6 million over the 2018-2022 period, mostly for equipment and staff to complete the necessary tests and research.

Other agencies

The bill also would require NHTSA to coordinate with the Federal Trade Commission and other agencies currently doing research on HAVs. CBO expects those agencies would include the Department of Commerce, the Department of Energy, the Department of Justice, the Federal Communications Commission, the National Science Foundation, the Department of Homeland Security and the Defense Advanced Research Projects Agency. CBO estimates that none of those agencies would have significant costs associated with the coordination requirement in S. 1885.

PAY-AS-YOU-GO CONSIDERATIONS

The Statutory Pay-As-You-Go Act of 2010 establishes budget-reporting and enforcement procedures for legislation affecting direct spending or revenues. Under S. 1885 CBO estimates that any increase in penalty collections—which are recorded in the budget as revenues—would be insignificant. Enacting the bill would not affect direct spending.

INCREASE IN LONG-TERM DIRECT SPENDING AND DEFICITS

CBO estimates that enacting S. 1885 would not increase net direct spending or on-budget deficits in any of the four consecutive 10-year periods beginning in 2028.

ESTIMATED IMPACT ON STATE, LOCAL, AND TRIBAL GOVERNMENTS

S. 1885 would impose an intergovernmental mandate, as defined in UMRA, by preempting the authority of state and local governments to regulate the design, construction, and performance of HAVs, unless such regulations are identical to federal regulations. State and local governments are not currently regulating these aspects of HAVs. The bill also would preempt any state regulation governing operator's licenses for HAVs that discriminates on the basis of disability. Although the bill would limit the application of state and local regulations, it would impose no duty on state or local governments that would result in additional spending or a loss of revenues.

ESTIMATED IMPACT ON THE PRIVATE SECTOR

S. 1885 would impose private-sector mandates as defined in UMRA on manufacturers of automobiles. Specifically, the bill would require manufacturers to:

- Install an alarm system in all passenger vehicles that would alert drivers to check the rear seat of their vehicles after turning off the engine;

- Submit safety evaluation reports to NHTSA that describe how safety issues are being addressed in HAVs; and

- Prepare cybersecurity plans for HAVs and include information in owners' manuals or on manufacturers' websites directing consumers to cybersecurity resources.

The bill also would require NHSTA to update or issue new safety standards for motor vehicles to address automated systems. Those standards may benefit manufacturers by facilitating the development of HAVs, but also may require manufacturers of those vehicles to incur additional costs.

Based on data on vehicle sales from the Bureau of Economic Analysis, CBO estimates that manufacturers would need to install alarm systems in more than 10 million motor vehicles annually. The cost of installing a system would depend on the rule to be issued by DOT. Some vehicles currently contain systems that may comply with the rule. However, because of the large number of vehicles that would be affected by the mandate, CBO estimates that the cost of the mandate would exceed $100 million annually. On the basis of information from industry experts, CBO estimates that the cost of complying with the mandates to submit safety evaluation reports and prepare cybersecurity plans would total tens of millions of dollars over the next five year period.

The net cost of the mandates would equal the additional costs incurred, offset by any savings associated with complying with the bill's requirements. For example, some of the costs of the mandates may be mitigated if the motor vehicle safety standards for automated systems lower the cost of producing such vehicles relative to regulations issued by DOT under current law. However, CBO expects that most of those savings would be realized a few years after manufacturers have begun to incur costs to install the rear-seat alarm systems. In aggregate, CBO estimates that the annual net cost of complying with all of the mandates in the bill would exceed the threshold established in UMRA for private-sector mandates ($156 million in 2017, adjusted annually for inflation) in at least some of the first five years the mandates are in effect.

PREVIOUS CBO ESTIMATE

On September 1, 2017, CBO provided an estimate for H.R. 3388, the SELF DRIVE Act, as ordered reported by the House Committee on Energy and Commerce on July 27, 2017. That bill included several work requirements for NHTSA that are included in S. 1885 and would subject vehicle manufacturers that fail to comply with reporting requirements to civil penalties. The CBO cost estimates reflect other differences between the two pieces of legislation.

ESTIMATE PREPARED BY:

Federal Costs: Sarah Puro
Intergovernmental and Private-Sector Mandates: Jon Sperl

ESTIMATE APPROVED BY:

H. Samuel Papenfuss
Deputy Assistant Director for Budget Analysis