AM	IENDMENT NO Calendar No
Pu	rpose: In the nature of a substitute.
IN	THE SENATE OF THE UNITED STATES—115th Cong., 2d Sess.
	S. 1885
	To support the development of highly automated vehicle safety technologies, and for other purposes.
R	eferred to the Committee on and ordered to be printed
	Ordered to lie on the table and to be printed
A	MENDMENT IN THE NATURE OF A SUBSTITUTE intended to be proposed by
Viz	:
1	Strike all after the enacting clause and insert the fol-
2	lowing:
3	SECTION 1. SHORT TITLES; TABLE OF CONTENTS.
4	(a) Short Titles.—This Act may be cited as the
5	"American Vision for Safer Transportation through Ad-
6	vancement of Revolutionary Technologies Act" or the "AV
7	START Act".
8	(b) Table of Contents.—The table of contents for
9	this Act is as follows:
	 Sec. 1. Short titles; table of contents. Sec. 2. Definitions. Sec. 3. Relationship to other laws. Sec. 4. Expedited resolution of highly automated vehicles conflicts with standards.

Sec. 5. Motor vehicle testing or evaluation.

- Sec. 6. Highly automated vehicles exemptions.
- Sec. 7. Dual use vehicle safety.
- Sec. 8. Levels of driving automation and revisions to certain definitions.
- Sec. 9. Highly automated vehicle safety evaluation report.
- Sec. 10. Highly automated vehicles rulemaking.
- Sec. 11. Highly Automated Vehicles Advisory Council.
- Sec. 12. Consumer education safety rulemaking for highly automated vehicles and partially automated vehicles.
- Sec. 13. Traffic safety and law enforcement.
- Sec. 14. Cybersecurity.
- Sec. 15. Data study on removal of personal data from vehicle information systems.
- Sec. 16. Cybersecurity consumer education information.
- Sec. 17. Provision of cybersecurity resource information.
- Sec. 18. Highly automated vehicle study.
- Sec. 19. Study on encouraging manufacturing in the United States of automated driving equipment and intelligent transportation solutions.
- Sec. 20. Privacy protections for users of motor vehicles.
- Sec. 21. Child safety.
- Sec. 22. Partially automated vehicle safety evaluation report.
- Sec. 23. Highly automated vehicle adoption and safety impacts.
- Sec. 24. Cybersecurity tools study.
- Sec. 25. Privacy protections for passenger motor vehicles.
- Sec. 26. Headlamps.
- Sec. 27. Savings provisions.

1 SEC. 2. DEFINITIONS.

- 2 (a) IN GENERAL.—In this Act:
- 3 (1) Automated driving system; dedicated
- 4 HIGHLY AUTOMATED VEHICLE; DYNAMIC DRIVING
- 5 TASK; HIGHLY AUTOMATED VEHICLE; OPERATIONAL
- 6 DESIGN DOMAIN; MANUFACTURER; MOTOR VEHICLE;
- 7 MOTOR VEHICLE EQUIPMENT; PARTIAL DRIVING AU-
- 8 TOMATION; PARTIALLY AUTOMATED VEHICLE.—The
- 9 terms "automated driving system", "dedicated high-
- 10 ly automated vehicle", "dynamic driving task",
- 11 "highly automated vehicle", "operational design do-
- main", "manufacturer", "motor vehicle", "motor ve-
- hicle equipment", "partial driving automation", and

1	"partially automated vehicle" have the meanings
2	given such terms in section 30102 of title 49, United
3	States Code, as amended by subsection (b).
4	(2) NHTSA.—The term "NHTSA" means the
5	National Highway Traffic Safety Administration
6	(3) Passenger motor vehicle.—The term
7	"passenger motor vehicle" has the meaning given
8	such term in section 32101 of title 49, United
9	States Code.
10	(4) Secretary.—The term "Secretary" means
11	the Secretary of Transportation.
12	(b) Motor Vehicle Safety Chapter.—Section
13	30102(a) of title 49, United States Code, is amended—
14	(1) by redesignating paragraphs (11), (12), and
15	(13) as paragraphs (18), (19), and (20), respec-
16	tively;
17	(2) by redesignating paragraphs (5) through
18	(10) as paragraphs (9) through (14) respectively;
19	(3) by redesignating paragraphs (3) and (4) as
20	paragraphs (5) and (6), respectively;
21	(4) by redesignating paragraphs (1) and (2) as
22	paragraphs (2) and (3), respectively;
)2	
23	(5) by inserting before paragraph (2), as redes-

1	"(1) Automated driving system.—Subject
2	to section 8 of the AV START Act, in describing a
3	Level 3, 4, or 5 automated driving system, the term
4	'automated driving system' means the hardware and
5	software that are collectively capable of performing
6	the entire dynamic driving task on a sustained basis,
7	regardless of whether the system is limited to a spe-
8	cific operational design domain.";
9	(6) by inserting after paragraph (3), as redesig-
10	nated, the following:
11	"(4) Dedicated Highly Automated Vehi-
12	CLE.—The term 'dedicated highly automated vehicle'
13	means a highly automated vehicle designed to be op-
14	erated exclusively (as defined by the SAE Inter-
15	national standard J3016, published on June 15,
16	2018) by a Level 4 or 5 automated driving system
17	for all trips.";
18	(7) by inserting after paragraph (6), as redesig-
19	nated, the following:
20	"(7) Dynamic driving task.—Subject to sec-
21	tion 8 of the AV START Act, the term 'dynamic
22	driving task'—
23	"(A) except as provided in subparagraph
24	(B), means all of the real time operational and

1	tactical functions required to operate a vehicle
2	in on-road traffic;
3	"(B) excludes strategic functions, such as
4	trip scheduling and selection of destinations and
5	waypoints; and
6	"(C) includes—
7	"(i) lateral vehicle motion control via
8	steering;
9	"(ii) longitudinal vehicle motion con-
10	trol via acceleration and deceleration;
11	"(iii) monitoring the driving environ-
12	ment via object and event detection, rec-
13	ognition, classification, and response prep-
14	aration;
15	"(iv) object and event response execu-
16	tion;
17	"(v) maneuver planning; and
18	"(vi) enhancing conspicuity through
19	lighting, signaling, and gesturing.
20	"(8) Highly automated vehicle.—The term
21	'highly automated vehicle' means a motor vehicle
22	with a gross vehicle weight of 10,000 pounds or less
23	that is equipped with a Level 3, 4, or 5 automated
24	driving system."; and

1	(8) by inserting after paragraph (14), as redes-
2	ignated, the following:
3	"(15) Operational design domain.—Subject
4	to section 8 of the AV START Act, the term 'oper-
5	ational design domain' means the operating condi-
6	tions under which a given driving automation sys-
7	tem, or a feature of such system, is designed to
8	function.
9	"(16) Partial driving automation.—The
10	term 'partial driving automation' describes a Level 2
11	driving automation system (as defined by SAE
12	International standard J3016, published on June
13	15, 2018).
14	"(17) Partially automated vehicle.—The
15	term 'partially automated vehicle' means a motor ve-
16	hicle with a gross vehicle weight of 10,000 pounds
17	or less that is equipped with a Level 2 driving auto-
18	mation system (as defined by SAE International
19	standard J3016, published on June 15, 2018).".
20	SEC. 3. RELATIONSHIP TO OTHER LAWS.
21	(a) Vehicle Preemption.—Section 30103(b) of
22	title 49, United States Code, is amended by adding at the
23	end the following:
24	"(3) Highly Automated Vehicles.—(A) No State
25	or political subdivision of a State may adopt, maintain,

- 1 or enforce any law, rule, or standard regulating the design,
- 2 construction, or performance of a highly automated vehicle
- 3 or automated driving system with respect to any of the
- 4 safety evaluation report subject areas described in section
- 5 30107(b).
- 6 "(B) This paragraph shall cease to have effect with
- 7 respect to any particular subject matter area on the effec-
- 8 tive date of a standard applicable to the same aspect of
- 9 vehicle performance as identified in section 30107(f).
- 10 "(C) Consistent with subparagraph (A), nothing in
- 11 this paragraph may be construed to prohibit a State or
- 12 political subdivision of a State from adopting, maintain-
- 13 ing, or enforcing any law, rule, or standard regarding the
- 14 sale, distribution, repair, or service of highly automated
- 15 vehicles, automated driving systems, or components of
- 16 automated driving systems by a dealer, manufacturer, or
- 17 distributor.
- 18 "(D) Nothing in this paragraph may be construed to
- 19 preempt, restrict, or limit a State or a political subdivision
- 20 of a State from acting as authorized under any other Fed-
- 21 eral law.
- 22 "(4) Preservation of Authority.—(A) In para-
- 23 graph (3)(A), the term 'design, construction, or perform-
- 24 ance' shall be interpreted consistent with the Secretary's
- 25 authority under section 30111 relating to motor vehicle

- 1 safety standards, and does not include compliance with the
- 2 traffic laws or rules of a State or a political subdivision
- 3 of a State, or the laws or rules of a State or a political
- 4 subdivision of a State that relate to rules of the road or
- 5 the operation of motor vehicles.
- 6 "(B) Nothing in subparagraph (A) may be construed
- 7 to otherwise affect or limit the authority of the Secretary
- 8 under this chapter.".
- 9 (b) Liability.—Section 30103(e) of title 49, United
- 10 States Code, is amended to read as follows:
- 11 "(e) STATE LAW LIABILITY.—(1) Compliance with a
- 12 motor vehicle safety standard prescribed under this chap-
- 13 ter does not exempt a person from liability at common
- 14 law.
- 15 "(2) Nothing in subsection (b)(3) may be construed
- 16 to exempt a person from liability at common law.
- 17 "(3) Nothing in subsection (b)(3) may be construed
- 18 to exempt a person from liability under a State law unless
- 19 such law directly or specifically regulates or prescribes the
- 20 design, construction, or performance of a highly auto-
- 21 mated vehicle or automated driving system.
- 22 "(4) Limitation on Predispute Arbitration.—
- 23 (A) Notwithstanding title 9, no predispute arbitration
- 24 agreement between a covered entity and a natural person
- 25 who is not acting as an employee, agent, affiliate, or busi-

1	ness associate of such covered entity at the time of an
2	incident described in clause (i) shall be valid or enforceable
3	with respect to any claim not preempted by subsection
4	(b)(3)—
5	"(i) arising out of or related to the death or
6	bodily injury of a person, including a passenger, by-
7	stander, or road user, related to the operation of an
8	automated driving system;
9	"(ii) seeking to recover damages, including con-
10	sequential or punitive damages to the extent avail-
11	able under applicable law; and
12	"(iii) that arises on or before the effective date
13	of a motor vehicle safety standard applicable to the
14	particular aspect of the design, construction, or per-
15	formance of a highly automated vehicle or an auto-
16	mated driving system upon which the claim is based,
17	except that this paragraph shall not apply to any
18	other claim based upon a particular aspect of the de-
19	sign, construction, or performance of a highly auto-
20	mated vehicle or an automated driving system for
21	which there is not an applicable motor vehicle stand-
22	ard in effect.
23	"(B) The applicability of this paragraph to an agree-
24	ment to arbitrate shall be determined by a court.

"(C) In this paragraph:

EDW18C38

1	"(i) The term 'bodily injury' means a physical
2	injury for which the injured person sought or re-
3	ceived medical treatment.
4	"(ii)(I) The term 'covered entity' means any en-
5	tity, that produces, develops, designs, assembles,
6	manufactures, or controls the functions of, regard-
7	less of whether the entity also performs other activi-
8	ties including activities described in subclause
9	(II)(bb), any of the hardware or software that—
10	"(aa) is original or aftermarket equipment,
11	including software updates or revisions;
12	"(bb) is capable (alone or in combination
13	with other equipment) of performing the dy-
14	namic driving task (as defined by SAE Inter-
15	national standard J3016, published on June
16	15, 2018); and
17	"(cc) is, or is part of, a highly automated
18	vehicle or automated driving system.
19	"(II) For purposes of subclause (I), the term
20	'controls the functions'—
21	"(aa) includes controlling any of the real
22	time operational or tactical functions necessary
23	to operate a vehicle, such as lateral vehicle mo-
24	tion control, longitudinal vehicle motion control,
25	monitoring the driving environment, object or

1	event response execution, maneuver planning,
2	or enhancing conspicuity through lighting, sig-
3	naling, or gesturing; and
4	"(bb) consistent with the clarification in
5	subclause (I) that engaging in the activities de-
6	scribed in subitems (AA) through (FF) shall
7	not exempt an entity from being a covered enti-
8	ty if the entity otherwise satisfies the definition
9	in that subclause, does not include—
10	"(AA) determining whether to initiate
11	a trip;
12	"(BB) dispatching a vehicle;
13	"(CC) scheduling a trip;
14	"(DD) selecting a route, destination,
15	or waypoint;
16	"(EE) performing repairs or mainte-
17	nance, or downloading or installing soft-
18	ware updates or revisions, in accordance
19	with the specification of the highly auto-
20	mated vehicle or automated driving system
21	manufacturer; or
22	"(FF) possessing, selling, leasing,
23	renting, or distributing a highly automated
24	vehicle or automated driving system.

1	"(iii) The term 'predispute arbitration agree-
2	ment' means any agreement to arbitrate a dispute
3	that has not arisen at the time of the making of the
4	agreement.".
5	(c) LICENSING.—A State may not issue a motor vehi-
6	cle operator's license for the operation or use of a dedi-
7	cated highly automated vehicle in a manner that discrimi-
8	nates on the basis of disability (as defined in section 3
9	of the Americans with Disabilities Act of 1990 (42 U.S.C.
10	12102)).
11	SEC. 4. EXPEDITED RESOLUTION OF HIGHLY AUTOMATED
12	VEHICLES CONFLICTS WITH STANDARDS.
13	(a) Defined Term.—In this section, the term "safe-
14	ty standard" means a Federal motor vehicle safety stand-
15	ard prescribed under chapter 301 of title 49, United
16	States Code.
17	(b) References to Human Drivers.—Not later
18	than 1 year after the date of the enactment of this Act,
19	an entity designated by the Secretary, after consultation
20	with stakeholders, shall prepare and submit a report to
21	the Secretary that identifies each provision, requirement,
22	specification, or procedure in a safety standard with a ref-
23	erence to features of the equipment that—
24	(1) is necessary only for the performance of the
25	dynamic driving task by a human driver;

1	(2) specifies a location or reference point within
2	a vehicle by reference to the position of a human
3	driver; or
4	(3) serves a purpose of providing information
5	to, or receiving input from, a human driver engaged
6	in performing the dynamic driving task.
7	(c) Substitution of Conforming References to
8	AUTOMATED SYSTEMS.—
9	(1) IN GENERAL.—In each provision of the re-
10	port prepared under subsection (b) identifying the
11	text of a regulation from a safety standard, a test
12	procedure, or a method for determining compliance
13	with a safety standard, the designated entity shall
14	include—
15	(A) an alternative reference to an auto-
16	mated system that is suitable for assessing,
17	through an objective test procedure, the compli-
18	ance of a dedicated highly automated vehicle, or
19	of a highly automated vehicle operating in auto-
20	mated mode, with the safety standard; or
21	(B) a determination that—
22	(i) the relevant regulatory text applies
23	to features of the motor vehicle equipment
24	that are only necessary for the perform-

1	ance of a dynamic driving task by a human
2	driver; and
3	(ii) no alternative reference to an
4	automated system is practicable.
5	(2) Conditions.—In carrying out paragraph
6	(1), the designated entity—
7	(A) shall ensure that all requirements re-
8	main objective and practicable;
9	(B) may not modify the purpose of any
10	safety standard; and
11	(C) may specify different references for—
12	(i) dedicated highly automated vehi-
13	cles that are intended for human occu-
14	pancy; and
15	(ii) dedicated highly automated vehi-
16	cles that are not designed, intended, or
17	marketed for human occupancy.
18	(d) Rulemaking.—
19	(1) Commencement.—Not later than 180 days
20	after the date on which the designated entity sub-
21	mits the report under subsection (b), the Secretary
22	shall commence a rulemaking proceeding to incor-
23	porate the report by reference into the relevant safe-
24	ty standards, except as provided in paragraph (3).

EDW18C38

1 (2) Final Rule.—Not later than 2 years after 2 the designated entity submits the report under sub-3 section (b), the Secretary shall issue a final rule to 4 incorporate the report by reference into the relevant 5 safety standards, except as provided in paragraph 6 (3).7 (3) ALTERNATIVE TEXT.—If the Secretary de-8 termines that 1 or more of the revisions to a regula-9 tion contained in the report submitted under sub-10 section (b) is not objective, is not practicable, or 11 does not meet the need for motor vehicle safety, the 12 Secretary shall incorporate alternative regulatory 13 text. 14 (4) Incorporation by reference.—If the 15 Secretary does not complete the rulemaking pro-16 ceeding under this subsection within 2 years after 17 the commencement of the rulemaking under para-18 graph (1), the revisions to regulations contained in 19 the report submitted under subsection (b) shall be 20 incorporated by reference into the relevant safety 21 standards. 22 (e) Savings Provision.—Nothing in this section 23 may be construed to prohibit the Secretary from maintaining different test procedures for highly automated vehicles 25 that retain the capability to be operated by a human driver

1	when such vehicles are not operating in an automated
2	mode.
3	SEC. 5. MOTOR VEHICLE TESTING OR EVALUATION.
4	Section 30112(b)(10) of title 49, United States Code,
5	is amended to read as follows:
6	"(10) the introduction of a motor vehicle in
7	interstate commerce solely for purposes of testing,
8	evaluation, or demonstration—
9	"(A) by a manufacturer that—
10	"(i) agrees not to sell or lease, or
11	offer for sale or lease, the motor vehicle at
12	the conclusion of the testing, evaluation, or
13	demonstration;
14	"(ii) has manufactured and distrib-
15	uted into the United States motor vehicles
16	that are certified, or motor vehicle equip-
17	ment utilized in a motor vehicle that is cer-
18	tified, to comply with all applicable Federal
19	motor vehicle safety standards;
20	"(iii) has submitted to the Secretary
21	appropriate manufacturer identification in-
22	formation under part 566 of title 49, Code
23	of Federal Regulations; and

1	"(iv) if applicable, has identified an
2	agent for service of process in accordance
3	with part 551 of such title; or
4	"(B) of a highly automated vehicle, auto-
5	mated driving system, or component of an auto-
6	mated driving system if—
7	"(i) the testing, evaluation, or dem-
8	onstration of the vehicle is only conducted
9	by employees, agents, or fleet management
10	contractors of the manufacturer of the
11	highly automated vehicle, the automated
12	driving system, or any component of such
13	vehicle or system;
14	"(ii) such manufacturer agrees not to
15	sell or lease, or offer for sale or lease, the
16	highly automated vehicle, automated driv-
17	ing system, or component of an automated
18	driving system at the conclusion of the
19	testing, evaluation, or demonstration;
20	"(iii) such manufacturer has sub-
21	mitted appropriate manufacturer identi-
22	fication information under part 566 of title
23	49, Code of Federal Regulations, if appli-
24	cable, or the similar manufacturer identi-
25	fication information, including—

ess in accordance with part 551 of title 49,

Code of Federal Regulations.".

23

1	SEC. 6. HIGHLY AUTOMATED VEHICLES EXEMPTIONS.
2	(a) In General.—Section 30113 of title 49, United
3	States Code, is amended—
4	(1) in subsection (a)—
5	(A) by striking "(a) Definition.—In this
6	section," and inserting the following:
7	"(a) Definitions.—In this section—
8	"(1) the term";
9	(B) by striking the period at the end and
10	inserting "; and; and
11	(C) by adding at the end the following:
12	"(2) the term 'new motor vehicle safety feature'
13	includes any feature that enables a highly automated
14	vehicle or an automated driving system, regardless
15	of whether an exemption has already been granted
16	for a similar feature on another model or models.";
17	(2) in subsection (b)—
18	(A) by amending paragraph (2) to read as
19	follows:
20	"(2)(A) The Secretary may begin a proceeding under
21	this subsection when a manufacturer applies for an exemp-
22	tion or a renewal of an exemption. The Secretary shall
23	publish notice of the application and provide an oppor-
24	tunity to comment. An application for an exemption or
25	for a renewal of an exemption shall be filed at such time

1	and in such manner, and contain such information, as re-
2	quired under this section and by the Secretary.
3	"(B) The Secretary shall grant or deny an exemption
4	for a highly automated vehicle not later than 180 days
5	after receiving an application for such exemption from a
6	manufacturer unless the application is received not later
7	than 2 years after the date of the enactment of the AV
8	START Act, in which case the Secretary shall grant or
9	deny such exemption not later than 270 days after the
10	application is received.
11	"(C) Before granting a renewal of an exemption or
12	otherwise increasing the number of highly automated vehi-
13	cles of a manufacturer that may be sold or introduced
14	under a previously granted exemption, or on at least an
15	annual basis, the Secretary shall evaluate the exemption's
16	impact on motor vehicle safety to ensure compliance with
17	paragraph (3) and any conditions set by the Secretary.";
18	and
19	(B) in paragraph (3)(B), by amending
20	clause (iv) to read as follows:
21	"(iv) compliance with the standard would pre-
22	vent the manufacturer from selling, introducing, or
23	delivering into interstate commerce a motor vehicle
24	with an overall safety level, occupant protection

1	level, and crash avoidance level at least equal to such
2	levels for nonexempt vehicles.";
3	(3) by amending subsection (d) to read as fol-
4	lows:
5	"(d) Eligibility.—(1) A manufacturer is eligible for
6	an exemption under subsection (b)(3)(B)(i) (including an
7	exemption relating to a bumper standard referred to in
8	subsection (b)(1)) only if the Secretary determines that
9	the manufacturer's total motor vehicle production in the
10	most recent year of production is not more than 10,000
11	"(2) Except as provided in paragraph (3), a manufac-
12	turer is eligible for an exemption under clause (ii), (iii)
13	or (iv) of subsection (b)(3)(B) only if the Secretary deter-
14	mines that the exemption is for not more than 2,500 vehi-
15	cles to be sold in the United States in any 12-month pe-
16	riod.
17	"(3) A manufacturer is eligible for an exemption for
18	any highly automated vehicle under clause (ii), (iii), or (iv)
19	of section (b)(3)(B) only if the Secretary determines
20	that—
21	"(A) during the 12-month period beginning on
22	the date of enactment of the AV START Act, the
23	total number of new exemptions granted per manu-
24	facturer is for not more than 15,000 highly auto-

1	mated vehicles to be sold or introduced into inter-
2	state commerce in the United States;
3	"(B) during the 12-month period immediately
4	following the period described in subparagraph (A),
5	the number of new exemptions granted per manufac-
6	turer is for not more than 40,000 highly automated
7	vehicles to be sold or introduced into interstate com-
8	merce in the United States; and
9	"(C) during any 12-month period following the
10	period described in subparagraph (B), the number of
11	new exemptions granted per manufacturer is for not
12	more than 80,000 highly automated vehicles to be
13	sold or introduced into interstate commerce in the
14	United States.
15	"(4) A manufacturer of a highly automated vehicle
16	may petition the Secretary to expand the limit under para-
17	graph (3)(C) to more than 80,000 highly automated vehi-
18	cles in any 12-month period after the exemption has been
19	in place for 4 years.";
20	(4) in subsection (e), by inserting "or for not
21	more than 5 years if the vehicle is a highly auto-
22	mated vehicle" before the period at the end; and
23	(5) by adding at the end the following:
24	"(i) Process and Analysis.—

1	"(1) In general.—Not later than 180 days
2	after the date of the enactment of the AV START
3	Act, the Secretary shall publish a notice in the Fed-
4	eral Register that describes the process and analysis
5	used for the consideration of exemption or renewal
6	applications for a highly automated vehicle.
7	"(2) Periodic Review and Updating.—The
8	notice required under paragraph (1)—
9	"(A) shall be reviewed not later than 5
10	years after its initial publication; and
11	"(B) shall be updated if the Secretary con-
12	siders an update to be necessary.".
13	(b) Sunset.—A manufacturer's eligibility for an ex-
14	emption from a provision, clause, sentence, or paragraph
15	in a motor vehicle safety standard under section
16	30113(d)(2)(B) of title 49, United States Code, as amend-
17	ed by subsection (a), shall end on the earlier of the date
18	that is 10 years after the date of the enactment of this
19	Act or the date on which a standard (except for a standard
20	promulgated under section 4 of this Act) that amends the
21	provision, clause, sentence, or paragraph from which an
22	exemption is sought takes effect, with due consideration
23	for any lead time specified for compliance.

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- 2 (a) IN GENERAL.—Section 30122(b) of title 49,
- 3 United States Code, is amended—
- 4 (1) by inserting "(1)" before "A manufac-
- 5 turer"; and
- 6 (2) by adding at the end the following:
- 7 "(2) The prohibition under paragraph (1) shall not
- 8 apply to a manufacturer that intentionally causes a steer-
- 9 ing wheel, brake or accelerator pedals, a gear shift, or
- 10 other device or element of design related to the perform-
- 11 ance of the dynamic driving task by a human driver to
- 12 be temporarily disabled during the time that an automated
- 13 driving system is performing the entire dynamic driving
- 14 task if that vehicle is otherwise in compliance with applica-
- 15 ble motor vehicle safety standards when the Level 4 or
- 16 5 automated driving system is engaged and when such sys-
- 17 tem is not engaged.".
- 18 (b) Rulemaking.—If the Secretary prescribes a reg-
- 19 ulation, in accordance with section 30122(c) of title 49,
- 20 United States Code, to exempt manufacturers from the
- 21 prohibition under section 30122(b)(2) of such title with
- 22 regard to highly automated vehicles, the amendments
- 23 under subsection (a) shall cease to have effect on the date
- 24 on which such regulation becomes effective.

1	SEC. 8. LEVELS OF DRIVING AUTOMATION AND REVISIONS
2	TO CERTAIN DEFINITIONS.
3	(a) Use of SAE International's Taxonomy and
4	DEFINITIONS.—The Secretary shall use the taxonomy and
5	definitions for automated driving systems set forth in SAE
6	International standard J3016, published on June 15,
7	2018, for—
8	(1) the various levels of automation for motor
9	vehicles; and
10	(2) any term defined in paragraph (1), (7), or
11	(15) of section 30102(a) of title 49, United States
12	Code.
13	(b) Review.—
14	(1) In General.—The Secretary—
15	(A) shall review the taxonomy and defini-
16	tions for automated driving systems set forth by
17	SAE International to ensure that such tax-
18	onomy and definitions are clear and objective;
19	and
20	(B) may provide feedback to SAE Inter-
21	national for potential updates.
22	(2) Use of revised standard.—
23	(A) Determination.—Not later than 120
24	days after SAE International revises the stand-
25	ard referred to in subsection (a), the Secretary,
26	after publishing notice of the revision in the

1	Federal Register, shall determine whether to
2	adopt the revised standard—
3	(i) to identify the various levels of au-
4	tomation for motor vehicles; or
5	(ii) to redefine any term defined in
6	paragraph (1), (7), or (15) of section
7	30102(a) of title 49, United States Code.
8	(B) Effect of decision not to adopt
9	THE REVISED STANDARD.—If the Secretary de-
10	cides not to adopt the revised standard—
11	(i) the Secretary shall notify SAE
12	International of the Secretary's decision;
13	and
14	(ii) the definitions referred to in sub-
15	section (a) shall remain in effect.
16	SEC. 9. HIGHLY AUTOMATED VEHICLE SAFETY EVALUA-
17	TION REPORT.
18	(a) In General.—Subchapter I of chapter 301 of
19	title 49, United States Code, is amended by adding at the
20	end the following:
21	"§ 30107. Highly automated vehicle safety evaluation
22	report
23	"(a) In General.—
24	"(1) Requirement.—Each manufacturer in-
25	troducing a new highly automated vehicle or auto-

21

1 mated driving system into interstate commerce shall 2 provide a safety evaluation report, in accordance 3 with this section, to certify that the manufacturer is 4 addressing the safety of such vehicle or system 5 through a documented assessment, testing, and vali-6 dation process. 7 "(2) Submission.— 8 "(A) INITIAL REPORT.—Each manufac-9 turer described in paragraph (1) shall submit a 10 report to the Secretary— "(i) upon testing a highly automated 12 vehicle or automated driving system; and 13 "(ii) not later than 90 days before 14 selling, offering for sale, or otherwise com-15 mercializing a highly automated vehicle or 16 automated driving system. 17 "(B) ANNUAL UPDATE.—Each manufac-18 turer described in paragraph (1) shall annually 19 submit, until the highly automated vehicle or 20 automated driving system is no longer being sold, offered for sale, or otherwise introduced 22 into interstate commerce by the manufacturer 23 or until the system is no longer being incor-24 porated into new motor vehicles by the manu-25 facturer, an updated report to the Secretary.

1	"(C) ADDITIONAL INFORMATION.—The
2	Secretary may require manufacturers described
3	in paragraph (1) to submit additional or clari-
4	fying information and documentation.
5	"(3) UPDATE INFORMATION.—For each annual
6	update required under paragraph (2)(B), the manu-
7	facturer—
8	"(A) may disclose that no significant
9	changes were made to the vehicle or system;
10	and
11	"(B) shall provide aggregate results—
12	"(i) of any significant safety deviation
13	from expected performance disclosed in
14	previous reports; and
15	"(ii) comparing the safety level of the
16	vehicle or system with a vehicle that is not
17	highly automated and is driven by a
18	human driver.
19	"(4) Review.—The Secretary shall review each
20	report submitted under paragraph (2).
21	"(b) Safety Evaluation Report Subject
22	Areas.—Each report submitted by a manufacturer under
23	subsection (a) shall describe how the manufacturer is ad-
24	dressing, through a documented assessment, testing, and

1	validation process, each of the subject areas described in
2	paragraphs (1) through (9).
3	"(1) System safety.—The avoidance of un-
4	reasonable risks to the safety of the automated driv-
5	ing system, including—
6	"(A) assurance that systems, including
7	hardware and software, perform intended func-
8	tions;
9	"(B) the mitigation of unreasonable risks
10	to safety caused by a malfunction of the auto-
11	mated driving system, including any component
12	therein; and
13	"(C) detection, classification, and response
14	to any circumstance or condition relevant to the
15	dynamic driving task within the operational de-
16	sign domain, including sense of objects, motor-
17	cyclists, bicyclists, pedestrians, other road
18	users, and animals in or crossing the path of
19	travel through the automated driving system.
20	"(2) Data recording.—The collection by the
21	vehicle of automated driving system performance in-
22	formation and incident and crash data—
23	"(A) to record the occurrence of malfunc-
24	tions, disengagements, degradations, or failures;

1	"(B) to aid in the analysis of the cause of
2	any issues described in subparagraph (A), in-
3	cluding by Federal agencies;
4	"(C) to enable efforts to work with other
5	entities; and
6	"(D) with respect to event data recorder
7	information, that complies with the collection
8	and sharing requirements under the FAST Act
9	(Public Law 114–94).
10	"(3) Cybersecurity.—The minimization of
11	cybersecurity risks to safety, including evaluation of
12	elements of the supply chain to identify and address
13	cybersecurity vulnerabilities, and the exchange of in-
14	formation about any vulnerabilities discovered from
15	field incidents, internal testing, or external security
16	research, and mechanisms for alerting the human
17	driver or operator about cyber vulnerabilities.
18	"(4) Human-machine interface.—
19	"(A) The methods of informing the human
20	driver or operator about whether the automated
21	driving system is functioning properly.
22	"(B) For a Level 3 vehicle, the methods to
23	address driver reengagement, which may in-
24	clude driver engagement monitoring to assess

1	driver awareness and readiness to perform the
2	full driving task.
3	"(C) The use of a human-machine inter-
4	face by people with disabilities through visual,
5	auditory, or haptic displays, or other methods.
6	"(5) Crashworthiness.—Practicable protec-
7	tion for all occupants given any planned seating po-
8	sitions or interior configurations and, for an unoccu-
9	pied highly automated vehicle, consideration of crash
10	compatibility with other motor vehicles and road
11	users.
12	"(6) Capabilities.—The capabilities and limi-
13	tations of the automated driving system, including a
14	description of the automated driving system and
15	technologies and their associated functions, its ex-
16	pected SAE level, and any exemptions under section
17	30112(b)(11), 30113(b)(3), or 30122(c).
18	"(7) Post-crash behavior.—The post-crash
19	behavior of the highly automated vehicle or auto-
20	mated driving system if sensors or critical systems
21	are damaged in a crash.
22	"(8) APPLICABLE LAWS.—Within the oper-
23	ational design domain, the manner in which the
24	highly automated vehicle or automated driving sys-

1	tem is designed to comply with applicable traffic
2	laws and rules of the road.
3	"(9) Automation function.—
4	"(A) The expected operational design do-
5	main in which the highly automated vehicle or
6	automated driving system is designed to oper-
7	ate, including—
8	"(i) the type of roadway, geographic
9	area, speed range, and environmental and
10	temporal conditions in which the auto-
11	mated driving system is intended to oper-
12	ate;
13	"(ii) any roadway and infrastructure
14	assets required for the operation of the
15	highly automated vehicle or automated
16	driving system, such as roadside equip-
17	ment, pavement markings, signage, and
18	traffic signals; and
19	"(iii) how the highly automated vehi-
20	cle or automated driving system will re-
21	spond if the defined operational design do-
22	main unexpectedly changes.
23	"(B) The expected object and event detec-
24	tion and response capabilities of the automated
25	driving system, including behavioral com-

EDW18C38

1 petencies and crash avoidance capability, as de-2 scribed in paragraph (1)(C). 3 "(C) The ability of the highly automated 4 vehicle or automated driving system to transi-5 tion to a minimal risk condition when a mal-6 function is encountered, it is operating in a de-7 graded state, or it is operating outside of the 8 operational design domain, with consideration 9 of the potential safety risks with the particular 10 fallback strategy, such as whether it requires a 11 human driver or an automated system with or 12 without driver controls or manual override ca-13 pabilities. 14 "(D) The performance of the vehicle 15 through the manufacturer's development and 16 implementation of tests, including simulation, 17 test track, and on-road testing. 18 "(c) CERTIFICATION OFINAPPLICABLE Cat-19 EGORIES.—A manufacturer that is solely testing a vehicle 20 or system may certify that 1 or more of the categories 21 set forth in subsection (b) do not apply. 22 "(d) Publicly Available.—The Secretary shall 23 make any report submitted by a manufacturer under this 24 section publicly available not later than 60 days after re-25 ceipt, except the Secretary may not make publicly avail-

1	able any information relating to a trade secret or confiden-
2	tial business information, or which is privileged. The man-
3	ufacturer may submit information related to a trade secret
4	or confidential business information separately from the
5	report.
6	"(e) Official Signature.—Each report submitted
7	by an entity under this section shall be reviewed by a sen-
8	ior official of the entity who—
9	"(1) is knowledgeable about the information
10	contained in the report; and
11	"(2) shall certify that, based on the official's
12	knowledge, the report does not contain any untrue
13	statement of a material fact.
14	"(f) Termination of Obligation to Disclose In-
15	FORMATION.—
16	"(1) In general.—A manufacturer's obliga-
17	tion to provide information on a specific category
18	under subsection (b) shall end on the effective date
19	of a motor vehicle safety standard applicable to the
20	same aspect of vehicle or system performance as is
21	covered by the category, with due consideration for
22	any lead time specified for compliance.
23	"(2) Effect of New Standard.—In adopting
24	any standard applicable to highly automated vehicle
25	performance, the Secretary shall—

1	"(A) identify the category under subsection
2	(b) to which the standard relates, if any; and
3	"(B) specify what information is no longer
4	required to be included in the report as a result
5	of the new standard.
6	"(g) Rules of Construction.—
7	"(1) Submissions.—A manufacturer may sub-
8	mit a safety evaluation report for vehicles introduced
9	into interstate commerce before the date of the en-
10	actment of the AV START Act.
11	"(2) Savings provisions.—
12	"(A) Nothing in this section may be con-
13	strued—
14	"(i) to amend or limit the authority of
15	the Secretary, or prohibit the use of the in-
16	formation included in the report under this
17	chapter; or
18	"(ii) to affect discovery, subpoena,
19	other court order, or any other judicial
20	process otherwise allowed under applicable
21	Federal or State law.
22	"(B) The Secretary may not condition the
23	manufacture, testing, sale, offer for sale, or in-
24	troduction into interstate commerce of a highly
25	automated vehicle or automated driving system

1	based on a review of a safety evaluation report
2	or additional information submitted under this
3	section.".
4	(b) Clerical Amendment.—The analysis for chap-
5	ter 301 of title 49, United States Code, is amended by
6	inserting after the item relating to section 30106 the fol-
7	lowing:
	"30107. Highly automated vehicle safety evaluation report.".
8	(c) Effective Date.—The amendments made by
9	this section shall take effect on the date that is 90 days
10	after the date of the enactment of this Act.
11	(d) Civil Penalties; False or Misleading Re-
12	PORTS.—Section 30165(a) of title 49, United States Code,
13	is amended—
14	(1) in paragraph (1), by inserting
15	"30107(a)(2)," after "section"; and
16	(2) in paragraph (4), by inserting "or under the
17	certification process established pursuant to section
18	30107(e)" after "30166(o)".
19	SEC. 10. HIGHLY AUTOMATED VEHICLES RULEMAKING.
20	(a) In General.—Subchapter II of chapter 301 of
21	title 49, United States Code, is amended by adding at the
22	end the following:
23	"§ 30129. Updated or new motor vehicle safety stand-
24	ards for highly automated vehicles
25	"(a) Rulemaking and Safety Priority Plan.—

EDW18C38

STAFF DRAFT

1	"(1) In general.—Not later than 180 days
2	after the date of the enactment of the AV START
3	Act, the Secretary shall make available to the public
4	and submit to the Committee on Commerce, Science,
5	and Transportation of the Senate and the Com-
6	mittee on Energy and Commerce of the House of
7	Representatives a rulemaking and safety priority
8	plan, as necessary—
9	"(A) to accommodate the safe development
10	and deployment of highly automated vehicles
11	and automated driving systems; and
12	"(B) to issue motor vehicle safety stand-
13	ards or other regulations to address each of the
14	safety evaluation report subject areas described
15	in section 30107(b).
16	"(2) Inclusion of priorities.—The plan re-
17	quired under paragraph (1) shall describe the overall
18	priorities of the National Highway Traffic Safety
19	Administration, including—
20	"(A) priorities with respect to highly auto-
21	mated vehicles; and
22	"(B) priorities with respect to other safety
23	initiatives of the Administration, in order to
24	meet the Nation's motor vehicle safety chal-
25	lenges.

1	"(3) Updates to safety priority plan.—
2	"(A) IN GENERAL.—The Secretary may
3	change the priorities set forth in the safety pri-
4	ority plan referred to in paragraph (1) at any
5	time to address matters the Secretary considers
6	of greater priority.
7	"(B) Preparation; submission; and
8	PUBLICATION.—If the Secretary determines
9	that the safety priority plan needs to be up-
10	dated, the Secretary shall—
11	"(i) prepare an interim update of the
12	safety priority plan;
13	"(ii) submit such updated plan to the
14	Committee on Commerce, Science, and
15	Transportation of the Senate and the
16	Committee on Energy and Commerce of
17	the House of Representatives; and
18	"(iii) make such updated plan avail-
19	able to the Highly Automated Vehicles
20	Technical Subcommittee established under
21	section 11(f)(1)(A) of the AV START Act
22	"(b) Rulemaking.—
23	"(1) In general.—Subject to paragraph (2),
24	not later than 1 year after the receipt of the rec-
25	ommendations from the Technical Subcommittee

1	under section $11(f)(1)(E)$ of the AV START Act,
2	the Secretary shall initiate a rulemaking proceeding
3	in accordance with the rulemaking and safety pri-
4	ority plan required in subsection (a).
5	"(2) REVIEW OF RECOMMENDATIONS.—The
6	Secretary shall review the recommendations sub-
7	mitted by the Technical Subcommittee under section
8	11(f)(1)(E) of the AV START Act to determine
9	which recommendations should be included in the
10	rulemaking proceeding under paragraph (1), based
11	on an identified need for motor vehicle safety and
12	feasibility.
13	"(c) Report to Congress.—Upon initiating the
14	rulemaking proceeding under subsection (b), and 4 years
15	later—
16	"(1) the Secretary shall review each safety eval-
17	uation report subject area described in section
18	30107(b) to determine if—
19	"(A) certain areas should not be addressed
20	through rulemaking because they are addressed
21	by another applicable Federal standard; or
22	"(B) if adopting a standard applicable to
23	the subject area would not improve motor vehi-
24	

1	"(2) if the Secretary makes a determination
2	under paragraph (1), the Secretary shall submit a
3	report to the Committee on Commerce, Science, and
4	Transportation of the Senate and the Committee or
5	Energy and Commerce of the House of Representa-
6	tives that includes—
7	"(A) an explanation for why such rule-
8	making cannot be completed;
9	"(B) any alternative action that will be
10	taken by the Secretary; and
11	"(C) any recommendations for potential
12	legislative changes.
13	"(d) Sense of Congress.—It is the Sense of Con-
14	gress that—
15	"(1) safety of highly automated vehicles is a
16	priority; and
17	"(2) new Federal safety standards governing
18	such vehicles should be promulgated without unrea-
19	sonable delay.
20	"(e) Judicial Review.—Section 706 of title 5 shall
21	apply to actions taken under this section.
22	"(f) Rule of Construction.—Nothing in this sec-
23	tion may be construed to restrict the authority of the Sec-
24	retary under section 30111. Any Federal motor vehicle

- 1 safety standard adopted pursuant to this section shall
- 2 meet the requirements under section 30111.".
- 3 (b) CLERICAL AMENDMENT.—The analysis for chap-
- 4 ter 301 of title 49, United States Code, is amended by
- 5 inserting after the item relating to section 30128 the fol-
- 6 lowing:

"Sec. 30129. Updated or new motor vehicle safety standards for highly automated vehicles.".

7 SEC. 11. HIGHLY AUTOMATED VEHICLES ADVISORY COUN-

- 8 CIL.
- 9 (a) Establishment.—Subject to the availability of
- 10 appropriations, not later than 6 months after the date of
- 11 the enactment of this Act, the Secretary of Transportation
- 12 shall establish, in the National Highway Traffic Safety
- 13 Administration, a Highly Automated Vehicle Advisory
- 14 Council (referred to in this section as the "Advisory Coun-
- 15 cil"). The Advisory Council shall replace the Advisory
- 16 Committee on Automation in Transportation, which was
- 17 established in 2016 pursuant to section 9(a)(2) of the
- 18 Federal Advisory Committee Act (5 U.S.C. App.).
- 19 (b) Membership.—The Advisory Council shall be
- 20 composed of a diverse group representative of business,
- 21 academia and independent researchers, State and local au-
- 22 thorities, safety and consumer advocates, engineers, labor
- 23 organizations, environmental experts, a representative of

the National Highway Traffic Safety Administration, and 2 other members the Secretary determines are appropriate. 3 (c) Terms.—Members of the Advisory Council shall 4 be appointed by the Secretary of Transportation and shall 5 serve for a term of 3 years. 6 (d) Vacancies.—Any vacancy occurring in the membership of the Advisory Council shall be filled in the same 8 manner as the original appointment for the position being vacated. The vacancy shall not affect the power of the re-10 maining members to execute the duties of the Advisory 11 Council. 12 (e) Duties.—The Advisory Council shall study issues regarding— 13 14 (1) advancing mobility access for the disabled 15 community with respect to the deployment of auto-16 mated driving systems to identify impediments to 17 their use and ensure an awareness of the needs of 18 the disabled community as these vehicles are being 19 designed for distribution in commerce; 20 (2) mobility access for senior citizens and popu-21 lations underserved by traditional public transpor-22 tation services and educational outreach efforts with 23 respect to the testing and distribution of highly 24 automated vehicles in commerce;

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(3) cybersecurity for the testing, deployment, and updating of automated driving systems with respect to supply chain risk management, interactions with Information Sharing and Analysis Centers and Information Sharing and Analysis Organizations, and a framework for identifying and implementing recalls of motor vehicles or motor vehicle equipment; (4) the development of a framework that allows manufacturers of highly automated vehicles to share with each other and the National Highway Traffic Safety Administration relevant, situational information related to any testing or deployment event on public streets resulting or that reasonably could have resulted in damage to the vehicle or any occupant of the vehicle and validation of such vehicles in a manner that does not risk public disclosure of such information or disclosure of confidential business information; (5) labor and employment issues that may be affected by the deployment of highly automated vehicles: (6) the environmental impacts of the deployment of highly automated vehicles, and the development and deployment of alternative fuel infrastruc-

1	ture alongside the development and deployment of
2	highly automated vehicles;
3	(7) protection of consumer privacy and security
4	of information collected by highly automated vehi-
5	cles;
6	(8) cabin safety for highly automated vehicle
7	passengers, and how automated driving systems may
8	impact collision vectors, overall crashworthiness, and
9	the use and placement of airbags, seatbelts, anchor
10	belts, head restraints, and other protective features
11	in the cabin;
12	(9) the testing and deployment of highly auto-
13	mated vehicles and automated driving systems in
14	areas that are rural, remote, mountainous, insular,
15	or unmapped to evaluate operational limitations
16	caused by natural geographical or man-made fea-
17	tures, or adverse weather conditions, and to enhance
18	the safety and reliability of highly automated vehi-
19	cles and automated driving systems used in such
20	areas with such features or conditions;
21	(10) independent verification and validation
22	procedures for highly automated vehicles that may
23	be useful to safeguard motor vehicle safety; and
24	(11) any other issue the Secretary considers ap-
25	propriate.

1	(f) Subcommittees.—
2	(1) Highly automated vehicles technical
3	SUBCOMMITTEE.—
4	(A) Establishment.—Not later than 180
5	days after the date of the enactment of this
6	Act, the Secretary shall establish a Highly
7	Automated Vehicles Technical Subcommittee
8	(referred to in this section as the "Technical
9	Subcommittee") to provide a forum for stake-
10	holders to discuss, prioritize, and make tech-
11	nical recommendations for highly automated ve-
12	hicle and automated driving system safety.
13	(B) Secretary's agenda.—
14	(i) IN GENERAL.—The Secretary shall
15	consult with the Technical Subcommittee,
16	as appropriate, on highly automated vehi-
17	cle safety matters, including the develop-
18	ment and implementation of relevant poli-
19	cies, programs, and rulemaking.
20	(ii) Agenda.—The Secretary shall
21	present the rulemaking and safety priority
22	plan required under section 30129(a) of
23	title 49, United States Code, to the Tech-
24	nical Subcommittee to serve as its agenda.
25	The Secretary may regularly provide rec-

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national;

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or the Secretary's designee—

STAFF DRAFT

S.L.C.

STAFF DRAFT

S.L.C.

1	(iv) Meetings.—The Technical Sub-
2	committee shall meet not less frequently
3	than 4 times per year.
4	(E) RECOMMENDATIONS FOR HIGHLY
5	AUTOMATED VEHICLES.—
6	(i) In general.—On a periodic basis
7	the Technical Subcommittee shall release
8	recommendations on voluntary standards
9	regarding highly automated vehicle safety
10	(ii) Report.—Not later than 5 years
11	after the date of the enactment of this Act
12	the Technical Subcommittee shall submit a
13	report to the Secretary containing rec-
14	ommendations of consensus-based, feasible
15	and objective standards to the Secretary
16	for potential rulemaking governing highly
17	automated vehicles that meet the need for
18	motor vehicle safety.
19	(iii) TERMINATION.—The Technical
20	Subcommittee shall terminate upon the
21	submission of the final report required
22	under clause (ii).
23	(2) Disability and Limited mobility access
24	SUBCOMMITTEE.—

25

1	(A) Establishment.—Not later than 180
2	days after the date of the enactment of this
3	Act, the Secretary shall establish a Disability
4	and Limited Mobility Access Subcommittee to
5	develop voluntary best practices regarding high-
6	ly automated vehicle accessibility for people
7	with physical, sensory, or other disabilities, in-
8	cluding for those who rely on mobility devices.
9	(B) Best practices.—The best practices
10	referred to in subparagraph (A) shall address
11	the physical accessibility of highly automated
12	vehicles and human-machine interface accessi-
13	bility through visual, auditory, or haptic dis-
14	plays or other methods.
15	(C) Membership.—The subcommittee es-
16	tablished under subparagraph (A) shall include
17	representatives from national organizations rep-
18	resenting individuals with disabilities and older
19	adults.
20	(3) Consumer education subcommittee.—
21	(A) Establishment.—Not later than 180
22	days after the date of the enactment of this
23	Act, the Secretary shall establish a Consumer
24	Education Subcommittee to focus on respon-

sible consumer education efforts to advance the

1	safety of highly automated vehicles and vehicles
2	that perform partial driving automation.
3	(B) Duties.—The subcommittee estab-
4	lished under subparagraph (A) shall—
5	(i) identify effective methods and ter-
6	minology for informing consumers for each
7	highly automated vehicle or vehicle that
8	performs partial driving automation about
9	the capabilities and limitations of that ve-
10	hicle, including whether that information is
11	based on or includes the terminology as de-
12	fined by SAE International standard
13	J3016, published June 15, 2018;
14	(ii) identify recommended education
15	and responsible marketing strategies and
16	programs that may be voluntarily employed
17	by industry to inform consumers, vehicle
18	owners and operators, and other stake-
19	holders about advanced driver assistance
20	systems, automated driving systems, and
21	partial driving automation as such tech-
22	nologies become available or are soon to be
23	introduced into interstate commerce;
24	(iii) identify recommended education
25	and responsible marketing strategies that

1	may be voluntarily employed by industry to
2	inform consumers on the comparative safe-
3	ty of highly automated vehicle and non-
4	highly automated vehicles driven by human
5	with respect to crashes, fatalities, and
6	other injuries (if known); and
7	(iv) submit a report to the Secretary
8	containing the findings and recommenda-
9	tions of the subcommittee.
10	(C) Considerations.—The subcommittee
11	established under subparagraph (A) shall con-
12	sider topics pertaining to—
13	(i) intent, capabilities, and limitations
14	of advanced driver assistance systems and
15	automated driving systems;
16	(ii) engagement and disengagement
17	methods, including methods to monitor
18	and address driver engagement in lower
19	levels of automation;
20	(iii) human-machine interfaces;
21	(iv) emergency fallback scenarios;
22	(v) operational boundary responsibil-
23	ities;
24	(vi) response in the event of a crash
25	or system failure;

1	(vii) potential mechanisms that could
2	change function behavior in service;
3	(viii) consistent nomenclature and tax-
4	onomy for safety features and systems;
5	and
6	(ix) disclosure of automated driving
7	system practices pertaining to consumer
8	data collection, privacy, and data owner-
9	ship.
10	(D) Membership.—
11	(i) IN GENERAL.—The Secretary shall
12	appoint, as members of the subcommittee
13	established under subparagraph (A), indi-
14	viduals with expertise in automated driving
15	systems and driver assistance systems, in-
16	cluding—
17	(I) representatives of—
18	(aa) motor vehicle manufac-
19	turers;
20	(bb) manufacturers of auto-
21	mated driving systems and driver
22	assistance systems (including
23	components);
24	(cc) motor vehicle dealers;

STAFF DRAFT

S.L.C.

1	(ii) Consultation.—The Secretary
2	shall consult with the Federal Trade Com-
3	mission about the recommendations of the
4	subcommittee, as appropriate.
5	(E) TERMINATION.—The subcommittee es-
6	tablished under subparagraph (A) shall termi-
7	nate on the date that is 2 years after the date
8	on which the subcommittee is established.
9	(4) HAV DATA ACCESS ADVISORY SUB-
10	COMMITTEE.—
11	(A) ESTABLISHMENT.—Not later than 180
12	days after the date of the enactment of this
13	Act, the Secretary shall establish the HAV
14	Data Access Advisory Subcommittee to provide
15	a forum for stakeholders to discuss and make
16	policy recommendations to Congress with re-
17	spect to the ownership of, control of, or access
18	to, information or data that vehicles collect,
19	generate, record, or store in an electronic form
20	that is retrieved from a highly automated vehi-
21	cle or automated driving system.
22	(B) Membership.—
23	(i) Voting members.—The sub-
24	committee established under subparagraph
25	(A) shall be composed of—

1	lished under subparagraph (A) as non-
2	voting members.
3	(C) Meetings.—The subcommittee estab-
4	lished under subparagraph (A) shall meet not
5	less frequently than 4 times per year.
6	(D) Report.—
7	(i) In general.—Not later than 2
8	years after the establishment of the sub-
9	committee under subparagraph (A), the
10	subcommittee shall submit a report to the
11	Committee on Commerce, Science, and
12	Transportation of the Senate and the
13	Committee on Energy and Commerce of
14	the House of Representatives that—
15	(I) contains recommendations,
16	supported by at least 2/3 of all voting
17	members, regarding—
18	(aa) the ownership of, con-
19	trol of, or access to, information
20	or data that vehicles collect, gen-
21	erate, record, or store in an elec-
22	tronic form that is retrieved from
23	a highly automated vehicle or
24	automated driving system;

istration and the Bureau of Consumer Protec-

tion of the Federal Trade Commission shall

24

1	provide support services to the subcommittee
2	established under subparagraph (A).
3	(F) FEDERAL REGULATION OF HAV DATA
4	ACCESS.—
5	(i) Temporary rulemaking re-
6	STRICTION.—No department or adminis-
7	trative agency of the Federal Government
8	may promulgate any regulation with re-
9	spect to the ownership of, control of, or ac-
10	cess to, information or data stored by, or
11	generated by, a highly automated vehicle
12	or automated driving system before the re-
13	port required under subparagraph (D) is
14	submitted to Congress.
15	(ii) Savings provisions.—Nothing
16	in this subsection may be construed—
17	(I) to prevent the Federal Gov-
18	ernment from carrying out its respon-
19	sibilities under the Driver Privacy Act
20	of 2015 (49 U.S.C. 30101 note); or
21	(II) to alter any existing author-
22	ity under section 30166 of title 49,
23	United States Code, regarding the
24	Secretary's access to information
25	stored or generated by highly auto-

1	mated vehicles or automated driving
2	systems.
3	(G) TERMINATION.—The subcommittee es-
4	tablished under subparagraph (A) shall termi-
5	nate upon the submission of the report required
6	under subparagraph (D).
7	(5) Additional subcommittees.—The Sec-
8	retary may form subcommittees, as needed, to un-
9	dertake information gathering activities, develop
10	technical advice, and present best practices or rec-
11	ommendations to the Secretary regarding specific
12	issues described in subsection (e).
13	(g) Availability of Reports.—Recommendations
14	and reports of the Advisory Council and subcommittees
15	established under subsection (f)—
16	(1) shall also be submitted to the Committee on
17	Commerce, Science, and Transportation of the Sen-
18	ate and the Committee on Energy and Commerce of
19	the House of Representatives; and
20	(2) shall be made publicly available.
21	(h) FEDERAL ADVISORY COMMITTEE ACT.—The es-
22	tablishment and operation of the Advisory Council and
23	any subcommittee of the Advisory Council shall conform
24	to the requirements of the Federal Advisory Committee
25	Act (5 U.S.C. App.), except for section 14 of such Act.

- 1 (i) Technical Assistance.—Upon the request of
- 2 the Advisory Council, the Secretary shall provide such
- 3 technical assistance to the Advisory Council as the Sec-
- 4 retary determines is necessary to carry out the Advisory
- 5 Council's duties.
- 6 (j) Detail of Federal Employees.—Upon the re-
- 7 quest of the Advisory Council, the Secretary may detail,
- 8 with or without reimbursement, any of the personnel of
- 9 the Department of Transportation to the Advisory Council
- 10 to assist the Advisory Council in carrying out its duties.
- 11 Any detail under this subsection shall not interrupt or oth-
- 12 erwise affect the civil service status or privileges of the
- 13 detailed Federal employee.
- 14 (k) Payment and Expenses.—Members of the Ad-
- 15 visory Council and the subcommittees established under
- 16 subsection (f) shall serve without pay.
- 17 (l) Termination.—The Advisory Council shall ter-
- 18 minate on the date that is 6 years after the date of the
- 19 enactment of this Act.
- 20 SEC. 12. CONSUMER EDUCATION SAFETY RULEMAKING
- 21 FOR HIGHLY AUTOMATED VEHICLES AND
- 22 PARTIALLY AUTOMATED VEHICLES.
- Not later than 3 years after the date of the enact-
- 24 ment of this Act, on review of the recommendations of
- 25 the Consumer Education Subcommittee under section

1	11(f)(3), the Secretary shall initiate a rulemaking pro-
2	ceeding to require manufacturers to inform consumers of
3	the capabilities and limitations of a vehicle's driving auto-
4	mation system or feature for any highly automated vehicle
5	or any vehicle that performs partial driving automation.
6	SEC. 13. TRAFFIC SAFETY AND LAW ENFORCEMENT.
7	(a) Research.—The Secretary, in coordination with
8	State and local transportation and highway safety entities,
9	State and local law enforcement entities, and other rel-
10	evant parties, including civil liberties and cybersecurity ex-
11	perts with respect to paragraph (2), shall research the
12	traffic safety implications of highly automated vehicles, in-
13	cluding—
14	(1) the intersection of conventional and highly
15	automated vehicles; and
16	(2) law enforcement impacts, including—
17	(A) enforcing applicable laws;
18	(B) identifying whether a vehicle was in
19	automated mode at the time of a crash;
20	(C) lawfully accessing crash data; and
21	(D) determining how a highly automated
22	vehicle may respond to law enforcement, includ-
23	ing the role and rights of any highly automated
24	vehicle passengers.

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22

- 1 (b) COORDINATION OF SAFETY.—The Secretary, in 2 coordination with State, local, and law enforcement agen-3 cies, may develop a process for State and local entities 4 to provide information, on a voluntary basis, to the Sec-5 retary to assist the Department of Transportation in identifying defects related to motor vehicle safety of highly 6 7 automated vehicles. 8 (c) Crash Data.— 9 (1) IN GENERAL.—Not later than 3 years after 10 the date of the enactment of this Act, the Secretary 11 shall revise the crash investigation data collection 12 system to include the collection of crash report data 13 elements that distinguish whether the vehicle in-14 volved in a crash is a highly automated vehicle or a 15 vehicle performing partial driving automation, in-16 cluding the level of automation and whether the 17 automated driving features were engaged at the time 18 of a crash. 19 COORDINATION.—In carrying out para-20
 - (2) COORDINATION.—In carrying out paragraph (1), the Secretary may coordinate with States to update the Model Minimum Uniform Crash Criteria to provide guidance to the States on the collection of information.

1	SEC. 14. CYBERSECURITY.
2	(a) In General.—Subchapter I of chapter 301 of
3	title 49, United States Code, as amended by section 9(a)
4	is further amended by adding at the end the following:
5	"§ 30108. Cybersecurity risks to the safety of highly
6	automated vehicles
7	"(a) Defined Term.—In this section, the term 'cy-
8	bersecurity incident' has the meaning given the term 'sig-
9	nificant cyber incident' in Presidential Policy Directive 41
10	(PPD-41), dated July 26, 2016.
11	"(b) Cybersecurity Plan.—
12	"(1) In general.—Each manufacturer of a
13	highly automated vehicle or automated driving sys-
14	tem shall develop, maintain, and execute a written
15	plan for identifying and reducing cybersecurity risks
16	to the motor vehicle safety of such vehicles and sys-
17	tems.
18	"(2) Requirements.—The plan required
19	under paragraph (1) shall include a process for—
20	"(A) the risk-based prioritized identifica-
21	tion and protection of safety-critical vehicle con-
22	trol systems and the broader transportation
23	ecosystem, as applicable;
24	"(B) the efficient detection and response
25	to potential vehicle cybersecurity incidents in
26	the field;

1	"(C) facilitating expeditious recovery from
2	incidents as they occur;
3	"(D) the institutionalization of methods
4	for the accelerated adoption of lessons learned
5	across industry through voluntary exchange of
6	information pertaining to cybersecurity inci-
7	dents, threats, and vulnerabilities, including the
8	consideration of a coordinated cybersecurity
9	vulnerability disclosure policy or other related
10	practices for collaboration with third-party cy-
11	bersecurity researchers;
12	"(E) the identification of the point of con-
13	tact of the manufacturer with responsibility for
14	the management of cybersecurity;
15	"(F) the evaluation of elements of the sup-
16	ply chain to identify and address cybersecurity
17	vulnerabilities;
18	"(G) the use of segmentation and isolation
19	techniques in vehicle architecture design, as ap-
20	propriate;
21	"(H) employee training on the implementa-
22	tion of and compliance with the requirements
23	under this paragraph; and
24	"(I) considering consistency and alignment
25	with the cybersecurity risk management ap-

1 proach described in section 2(e) of the National 2 Institute of Standards and Technology Act (15) 3 U.S.C. 272(e)) or international consensus cy-4 bersecurity standards. 5 "(3) Inspection.—The Secretary may inspect 6 any cybersecurity plan developed by a manufacturer 7 under this subsection to enable the Secretary to de-8 cide whether the manufacturer has complied, or is 9 complying, with this chapter or a regulation pre-10 scribed or order issued pursuant to this chapter. 11 "(4) Protections for disclosure.—Each 12 manufacturer required to develop, maintain, and 13 execute a plan under paragraph (1) shall develop a 14 summary of the plan that is suitable for public dis-15 closure and disclose such summary to the public. 16 "(c) COORDINATED Cybersecurity Vulner-ABILITY DISCLOSURE.—The Secretary may work coopera-17 18 tively with manufacturers of highly automated vehicles 19 and automated driving systems to incentivize manufactur-20 ers to voluntarily adopt a coordinated vulnerability disclo-21 sure policy and practice in which a security researcher pri-22 vately discloses information related to a discovered vulner-23 ability to a manufacturer and allows the manufacturer time to confirm and remediate the vulnerability—

1	"(1) so that manufacturers build relationships
2	with security researchers to mitigate cybersecurity
3	risks; and
4	"(2) to discover and mitigate cybersecurity
5	vulnerabilities in highly automated vehicles or auto-
6	mated driving systems that present a risk to motor
7	vehicle safety (as defined in section 30102).
8	"(d) Coordination.—All Federal agencies under-
9	taking research on cybersecurity risks associated with
10	highly automated vehicles shall coordinate with the Sec-
11	retary on their findings.".
12	(b) Clerical Amendment.—The analysis for chap-
13	ter 301 of title 49, United States Code, is amended by
14	inserting after the item relating to section 30107, as
15	added by section 9(b), the following:
	"30108. Cybersecurity risks to the safety of highly automated vehicles.".
16	(c) Effective Date.—The amendments made by
17	this section shall take effect on the date that is 18 months
18	after the date of the enactment of this Act.
19	SEC. 15. DATA STUDY ON REMOVAL OF PERSONAL DATA
20	FROM VEHICLE INFORMATION SYSTEMS.
21	(a) Study.—
22	(1) IN GENERAL.—The Comptroller General of
23	the United States shall conduct a study of the tech-
24	nologies currently available to remove data that may
25	be personally identifiable or attributable to an indi-

1	vidual from used motor vehicles upon their sale to
2	a new owner or from leased or rented vehicles at the
3	completion of the lease or rental contract.
4	(2) Uniform data removal approach.—The
5	study conducted under paragraph (1) shall assess
6	the feasibility of adopting a uniform and simple ap-
7	proach across vehicle brands for the removal of data
8	described in paragraph (1) when a vehicle is sold or
9	a lease or rental ends.
10	(3) Consultation.—In conducting the study
11	under paragraph (1), the Comptroller General shall
12	consult with—
13	(A) vehicle manufacturers;
14	(B) consumer groups;
15	(C) vehicle dealers, including representa-
16	tives of the vehicle leasing and vehicle rental in-
17	dustry; and
18	(D) other stakeholders.
19	(b) Report.—Not later than 1 year after the date
20	of the enactment of this Act, the Comptroller General of
21	the United States shall submit a report to the Committee
22	on Commerce, Science, and Transportation of the Senate
23	and the Committee on Energy and Commerce of the
24	House of Representatives that contains the result of the

1	study conducted under subsection (a), including rec-
2	ommendations regarding—
3	(1) the feasibility of adopting a uniform data
4	removal approach; and
5	(2) legislative action that the Comptroller Gen-
6	eral may consider prudent and practicable for facili-
7	tating the consistent removal of data described in
8	paragraph (1).
9	SEC. 16. CYBERSECURITY CONSUMER EDUCATION INFOR-
10	MATION.
11	(a) In General.—Not later than 1 year after the
12	date of the enactment of this Act, the Secretary shall—
13	(1) develop educational cybersecurity resources
14	to assist consumers in maintaining awareness of and
15	minimizing potential motor vehicle cybersecurity
16	risks to passenger motor vehicles; and
17	(2) ensure that the resources developed under
18	paragraph (1) are available to and readily accessible
19	by the public on the website of the National High-
20	way Traffic Safety Administration.
21	(b) Periodic Updates.—The Secretary shall peri-
22	odically update the resources developed under subsection
23	(a).
24	(c) Consultation.—In developing the resources
25	under subsection (a), the Secretary shall consult with

	10
1	motor vehicle industry representatives, safety organiza-
2	tions, security researchers, the National institute of
3	Standards and Technology, and State and local govern-
4	ment agencies that are directly or indirectly affected by
5	this Act.
6	SEC. 17. PROVISION OF CYBERSECURITY RESOURCE IN-
7	FORMATION.
8	Manufacturers of passenger motor vehicles shall in-
9	clude information directing consumers to the cybersecurity
10	resources developed by the Secretary under section 16 in
11	motor vehicle owners' manuals or on the manufacturer's
12	website that is publicly available and accessible to con-
13	sumers.
14	SEC. 18. HIGHLY AUTOMATED VEHICLE STUDY.
15	(a) In General.—Not later than 60 days after the
16	date of enactment of this Act, the Secretary shall initiate
17	a study on the existing and future impacts of highly auto-
18	mated vehicles to transportation infrastructure, mobility,
19	the environment, and fuel consumption, including impacts
20	on—
21	(1) the Interstate System (as defined in section
22	101(a) of title 23, United States Code);
23	(2) urban areas;
24	(3) rural areas;

(4) transit systems;

25

1	(5) corridors with heavy traffic congestion;
2	(6) energy consumption and dependence;
3	(7) the connection between automated driving
4	systems and fuel consumption and emissions;
5	(8) transportation systems optimization;
6	(9) the role of vehicle-to-vehicle and vehicle-to-
7	infrastructure communications in transportation en-
8	ergy use;
9	(10) vehicle drivetrain selection and perform-
10	ance;
11	(11) congestion, crash avoidance, and emissions
12	implications for States and localities; and
13	(12) any other areas or issues that the Sec-
14	retary determines to be appropriate.
15	(b) Contents of Study.—The study under sub-
16	section (a) shall include specific recommendations regard-
17	ing the impacts of highly automated vehicles on—
18	(1) existing transportation system capacity;
19	(2) vehicle miles traveled;
20	(3) vehicle emissions;
21	(4) public transit and multimodal use;
22	(5) energy consumption and dependence; and
23	(6) land use.
24	(c) Considerations.—In carrying out the study
2.5	under this section, the Secretary shall—

1	(1) determine the need for any policy changes
2	required by Federal agencies and legislative changes
3	to be considered by Congress; and
4	(2) include a discussion of—
5	(A) the impacts that highly automated ve-
6	hicles will place on existing transportation in-
7	frastructure, including signage and markings
8	traffic lights, and highway capacity and design
9	(B) the implications of shared fleet and al-
10	ternative vehicle ownership models;
11	(C) the impact on commercial and private
12	traffic flows;
13	(D) infrastructure improvement needs that
14	may be necessary to accommodate highly auto-
15	mated vehicles, including potential energy
16	needs;
17	(E) the impact of highly automated vehi-
18	cles on the environment, energy needs, conges-
19	tion, and vehicle miles traveled; and
20	(F) the impact of highly automated vehi-
21	cles on mobility and public transit use in urban
22	suburban, and rural areas, including pedestrian
23	and bicycle transportation modes.
24	(d) COORDINATION.—In carrying out the study under
25	this section, the Secretary shall consider and incorporate

1	relevant current and ongoing research of the Department
2	of Transportation.
3	(e) Consultation.—In carrying out the study under
4	this section, the Secretary shall convene and consult with
5	a panel of national experts, including—
6	(1) operators and users of the Interstate Sys-
7	tem (as defined in section 101(a) of title 23, United
8	States Code), including private sector stakeholders;
9	(2) States;
10	(3) metropolitan planning organizations;
11	(4) the motor carrier industry;
12	(5) representatives of public transportation
13	agencies or organizations;
14	(6) highway safety and academic groups;
15	(7) nonprofit entities with experience in energy
16	security and transportation policy;
17	(8) National Laboratories (as defined in section
18	2 of the Energy Policy Act of 2005 (42 U.S.C.
19	15801));
20	(9) environmental stakeholders; and
21	(10) highly automated vehicle producers, manu-
22	facturers, and technology developers.
23	(f) REPORT.—Not later than 18 months after the
24	date on which the study under this section is initiated.

	11
1	the Secretary shall submit a report to Congress containing
2	the results of the study.
3	(g) FACA.—The Federal Advisory Committee Act (5
4	U.S.C. App.) shall not apply to the panel convened in ac-
5	cordance with subsection (e).
6	SEC. 19. STUDY ON ENCOURAGING MANUFACTURING IN
7	THE UNITED STATES OF AUTOMATED DRIV-
8	ING EQUIPMENT AND INTELLIGENT TRANS-
9	PORTATION SOLUTIONS.
10	(a) In General.—The Secretary shall conduct a
11	study on ways to encourage manufacturing in the United
12	States of automated driving equipment, intelligent trans-
13	portation solutions, and other equipment, including hard-
14	ware and processors.
15	(b) RECOMMENDATIONS.—In conducting the study
16	under subsection (a), the Secretary shall develop rec-
17	ommendations for methods to incentivize manufacturing
18	in the United States of automated driving equipment, in-

telligent transportation solutions, and other equipment, in-

cluding hardware and processors, including through the

21 use of grant programs and other funding sources.

1	SEC. 20. PRIVACY PROTECTIONS FOR USERS OF MOTOR VE-
2	HICLES.
3	(a) Motor Vehicle Privacy Database.—Not
4	later than 1 year after the date of the enactment of this
5	Act, the Administrator of NHTSA shall—
6	(1) create a publicly accessible and easily
7	searchable online database that contains the infor-
8	mation submitted under subsection (b); and
9	(2) place a link to the database described in
10	paragraph (1) on the home page of NHTSA's
11	website.
12	(b) Database Contents.—
13	(1) Privacy.—Not later than the later of 180
14	days after the date of the enactment of this Act or
15	180 days after the date on which a privacy practices
16	notice is made available in accordance with section
17	25, each person required to make available such no-
18	tice under that section shall submit to the Adminis-
19	trator of the National Highway Traffic Safety Ad-
20	ministration—
21	(A) a clear and concise summary of the
22	privacy policy of the person, including a de-
23	scription of each of the notice requirements de-
24	scribed in section 25(c), which shall be broken
25	out into separable elements by the notice re-
26	quirements under each paragraph of such sub-

1	section to facilitate comparison between privacy
2	policies; and
3	(B) a link to the privacy policy.
4	(2) Cybersecurity.—The Secretary shall link
5	to the cybersecurity plans that are suitable for pub-
6	lic disclosure required under section 30108 of title
7	49, United States Code, and published under section
8	30110 of such title.
9	SEC. 21. CHILD SAFETY.
10	(a) Amendment.—
11	(1) In General.—Chapter 323 of title 49,
12	United States Code, is amended by inserting after
13	section 32304A the following:
14	"§ 32304B. Child safety
15	"(a) Definitions.—In this section:
16	"(1) Passenger motor vehicle.—The term
17	'passenger motor vehicle' has the meaning given that
18	term in section 32101.
19	"(2) Rear designated seating position.—
20	The term 'rear designated seating position' means
21	designated seating positions that are rearward of the
22	front seat.
23	"(3) Secretary.—The term 'Secretary' means
24	the Secretary of Transportation.

- 1 "(b) RULEMAKING.—Not later than 2 years after the
- 2 date of the enactment of the American Vision for Safer
- 3 Transportation through Advancement of Revolutionary
- 4 Technologies Act, the Secretary shall issue a final rule re-
- 5 quiring all new passenger motor vehicles weighing less
- 6 than 10,000 pounds gross vehicle weight to be equipped
- 7 with a system to alert the operator to check rear des-
- 8 ignated seating positions after the vehicle engine or motor
- 9 is deactivated by the operator.
- 10 "(c) Means.—The alert required under subsection
- 11 (b)—
- 12 "(1) shall include a distinct auditory and visual
- alert, which may be combined with a haptic alert;
- 14 and
- 15 "(2) shall be activated when the vehicle motor
- is deactivated by the operator.
- 17 "(d) Add-on Child Restraint Systems.—In
- 18 issuing the final rule required by subsection (b), the Sec-
- 19 retary shall consider additional technologies that work
- 20 with add-on child restraint systems that achieve the same
- 21 purpose of alerting the driver in addition to the vehicle-
- 22 based system.
- "(e) Phase-in.—The rule issued pursuant to sub-
- 24 section (b) shall require full compliance with the rule be-
- 25 ginning on September 1st of the first calendar year that

1	begins more than 30 months after the date on which the
2	final rule is issued.".
3	(2) Clerical amendment.—The analysis for
4	chapter 323 of title 49, United States Code, is
5	amended by striking the item relating to section
6	32304A and inserting the following:
	"32304A. Consumer tire information and standards. "32304B. Child safety.".
7	(b) Awareness of Children in Motor Vehi-
8	CLES.—Section 402 of title 23, United States Code, is
9	amended by inserting after subsection (k) the following:
10	"(l) Unattended Passengers.—
11	"(1) In general.—Each State may use a por-
12	tion of the amounts it receives under this section to
13	carry out a program to educate the public on the
14	risks of leaving a child or unattended passenger in
15	a vehicle after the vehicle motor is deactivated by
16	the operator.
17	"(2) Program placement.—A State does not
18	need to carry out the program described in para-
19	graph (1) through the State transportation or high-
20	way safety office.".
21	(c) Study and Report.—
22	(1) Independent study.—
23	(A) AGREEMENT.—

1	(i) IN GENERAL.—The Secretary shall
2	enter into an agreement or a contract with
3	an independent third-party that does not
4	have any financial or contractual ties with
5	passenger motor vehicle manufacturers or
6	technology companies producing child re-
7	minder alert systems to perform the serv-
8	ices under this paragraph.
9	(ii) Timing.—The Secretary shall
10	enter into the agreement or contract de-
11	scribed in clause (i) not later than the date
12	that the Secretary determines is the latest
13	date by which completion of the services
14	under this paragraph will allow the Sec-
15	retary enough time to prepare and submit
16	the study required under paragraph (2) in
17	accordance with such paragraph.
18	(B) Independent study.—
19	(i) In general.—Under an agree-
20	ment between the Secretary and an inde-
21	pendent third-party under this paragraph,
22	the independent third-party shall carry out
23	a study on retrofitting existing passenger
24	motor vehicles, and add-on child restraint

systems, with technology to address the

1	problem of children left in rear designated
2	seating positions of motor vehicles after
3	the motor vehicles have been deactivated
4	by the operator of the vehicle.
5	(ii) Elements.—In carrying out the
6	study required under clause (i), the inde-
7	pendent third-party shall—
8	(I) survey and evaluate a variety
9	of methods used by current and
10	emerging aftermarket technology or
11	products, including add-on child re-
12	straint systems, to solve the problem
13	of children being left in a rear des-
14	ignated seating position after the vehi-
15	cle motor is deactivated by the oper-
16	ator;
17	(II) make recommendations for
18	manufacturers of such technology or
19	products to undergo a functional safe-
20	ty performance to ensure that the
21	products, including add-on child re-
22	straint systems, perform as designed
23	by the manufacturer under a variety
24	of real world conditions; and

1	(III) provide recommendations
2	for consumers on how to select such
3	technology or products in order to ret-
4	rofit existing vehicles and for add-on
5	child restraint systems.
6	(2) Report.—During the 180-day period be-
7	ginning on the date on which the Secretary issues
8	the final rule required under section 32304B(b) of
9	title 49, United States Code, as added by subsection
10	(a)(1), the Secretary shall submit the results of the
11	study carried out under paragraph (1) to the Com-
12	mittee on Commerce, Science, and Transportation of
13	the Senate and the Committee on Energy and Com-
14	merce of the House of Representatives.
15	SEC. 22. PARTIALLY AUTOMATED VEHICLE SAFETY EVAL-
	SEC. 22. PARTIALLY AUTOMATED VEHICLE SAFETY EVAL- UATION REPORT.
15	
15 16 17	UATION REPORT.
15 16 17	UATION REPORT. (a) In General.—Subchapter I of chapter 301 of
15 16 17 18	UATION REPORT. (a) IN GENERAL.—Subchapter I of chapter 301 of title 49, United States Code, as amended by sections 9(a)
15 16 17 18 19	UATION REPORT. (a) IN GENERAL.—Subchapter I of chapter 301 of title 49, United States Code, as amended by sections 9(a) and 14(a), is further amended by adding at the end the
15 16 17 18 19 20	UATION REPORT. (a) IN GENERAL.—Subchapter I of chapter 301 of title 49, United States Code, as amended by sections 9(a) and 14(a), is further amended by adding at the end the following:
15 16 17 18 19 20 21	UATION REPORT. (a) IN GENERAL.—Subchapter I of chapter 301 of title 49, United States Code, as amended by sections 9(a) and 14(a), is further amended by adding at the end the following: "§ 30109. Partially automated vehicle report
15 16 17 18 19 20 21 22	UATION REPORT. (a) IN GENERAL.—Subchapter I of chapter 301 of title 49, United States Code, as amended by sections 9(a) and 14(a), is further amended by adding at the end the following: "§ 30109. Partially automated vehicle report "(a) REQUIREMENT.—A manufacturer of a new par-

1	offering for sale, or otherwise commercializing such vehicle
2	that describes the capabilities and limitations of the vehi-
3	cle.
4	"(b) Contents.—The report required under sub-
5	section (a) shall describe—
6	"(1) the capabilities and limitations of the vehi-
7	cle, including a description of the active safety sys-
8	tems and driving automation features;
9	"(2) the human-machine interface, including
10	measures intended to ensure driver engagement at
11	all times and prevent misuse;
12	"(3) efforts to educate consumers on the capa-
13	bilities and limitations of the vehicle; and
14	"(4) the manufacturer's efforts to educate and
15	train the manufacturer's marketing and sales forces
16	dealers, and distributors to understand the vehicle's
17	technology.
18	"(c) Public Availability.—
19	"(1) In general.—Except as provided in para-
20	graph (2), not later than 60 days after receiving a
21	report from a manufacturer under subsection (a)
22	the Secretary shall make such report available to the
23	publie.
24	"(2) Exclusions.—The Secretary may not
25	make publicly available any information that—

1	"(A) relates to a trade secret;
2	"(B) is confidential business information;
3	or
4	"(C) is privileged.
5	"(d) Savings Provisions.—
6	"(1) In General.—Nothing in this section
7	may be construed—
8	"(A) to amend, limit the authority of the
9	Secretary, or prohibit the use of the informa-
10	tion included in the report required under this
11	chapter; or
12	"(B) to affect discovery, subpoena, other
13	court order, or any other judicial process other-
14	wise allowed under applicable Federal or State
15	law.
16	"(2) Limitation.—The Secretary may not con-
17	dition the manufacture, testing, sale, offer for sale,
18	or introduction into interstate commerce of a par-
19	tially automated vehicle based on a review of the re-
20	port submitted under subsection (a).".
21	(b) Clerical Amendment.—The analysis for chap-
22	ter 301 of title 49, United States Code, is amended by
23	inserting after the item relating to section 30108, as
24	added by section 14(b), the following:

"30109. Partially automated vehicle report.".

1	(c) Effective Date; Sunset.—The amendments
2	made by this section—
3	(1) shall take effect on the date that is 90 days
4	after the date of the enactment of this Act; and
5	(2) shall be repealed on the effective date of the
6	rule issued pursuant to section 12(f).
7	SEC. 23. HIGHLY AUTOMATED VEHICLE ADOPTION AND
8	SAFETY IMPACTS.
9	(a) In General.—Subchapter I of chapter 301 of
10	title 49, United States Code, as amended by sections 9(a),
11	14(a), and 22(a), is further amended by adding at the end
12	the following:
13	"SEC. 30110. HIGHLY AUTOMATED VEHICLE ADOPTION AND
14	SAFETY IMPACTS.
15	"(a) Public Availability.—The Secretary shall
16	maintain, on a publicly available website of the Depart-
17	ment, Federal databases and information relevant to high-
18	ly automated vehicles, including—
19	"(1) safety evaluation reports required under
20	section 30107;
21	"(2) cybersecurity reports required under sec-
22	tion 30108;
23	"(3) exemption applications, approvals, and de-
24	nials under section 30113;

"(4) reports of defects and noncompliances
under section 30166(f);
"(5) reports of foreign safety recalls under sec-
tion 30166(l);
"(6) early warning information required under
section 30166(m)(3);
"(7) information from the programs of the Na-
tional Center for Statistics and Analysis, including
the Fatality Analysis Reporting System, Special
Crash Investigations, and the State Data System;
"(8) the rulemaking and safety priority plan re-
quired under section 10 of the AV START Act;
"(9) the cybersecurity resources required under
section 16 of the AV START Act;
"(10) the privacy database required under sec-
tion 20 of the AV START Act;
"(11) any reports issued or research findings
published; and
"(12) any other source available to the Sec-
retary.
"(b) Data Transparency.—
"(1) In general.—The Secretary shall peri-
odically report on the status of the deployment of
highly automated vehicles in the United States.

1	"(2) Contents.—Each report under para-
2	graph (1) shall include, to the greatest extent pos-
3	sible based on the information available to the Sec-
4	retary—
5	"(A) a list of the manufacturers intro-
6	ducing highly automated vehicles into interstate
7	commerce, including whether the vehicles are in
8	testing or in commercially available;
9	"(B) an estimate of the number of highly
10	automated vehicles produced;
11	"(C) an estimate of the number of fatali-
12	ties resulting from crashes involving a highly
13	automated vehicle;
14	"(D) recalls for a highly automated vehicle
15	or an automated driving system;
16	"(E) a discussion of how manufacturers
17	are addressing the subject areas of the safety
18	evaluation report required under section 30107;
19	"(F) a discussion of the Federal motor ve-
20	hicle safety standards manufacturers are seek-
21	ing exemptions for highly automated vehicles
22	under section 30113 and the purposes for which
23	such exemptions are sought;

1	"(G) a comparison of the safety of a highly
2	automated vehicle with a conventional vehicle
3	that is driven by a human driver; and
4	"(H) any other information the Secretary
5	considers relevant.
6	"(3) DISCLOSURE.—The Secretary may provide
7	the information described in paragraph (2)—
8	"(A) in the form of a separate report; or
9	"(B) by including it in another motor vehi-
10	cle report that the Department is required to
11	submit to Congress, as appropriate.
12	"(4) BIENNIAL REPORTING.—If the Secretary
13	does not report on any of the topics described in
14	paragraph (2) during any 2-year period, the Sec-
15	retary shall issue a separate report on such topic
16	"(c) Implementation.—This section shall be imple-
17	mented in accordance with existing law and regulations
18	governing personal information and confidential business
19	information.".
20	(b) Clerical Amendment.—The analysis for chap-
21	ter 301 of title 49, United States Code, is amended by
22	inserting after the item relating to section 30109, as
23	added by section 22(b), the following:
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"30110. Highly automated vehicle adoption and safety impacts.".

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1	SEC. 24.	. CYBERSECURITY TOOLS ST	HDY.

2	(a) Defined Term.—In this section, the term "cy-
3	bersecurity incident" has the meaning given the term "sig-
4	nificant cyber incident" in Presidential Policy Directive 41
5	(PPD-41), dated July 26, 2016.
6	(b) Study; Recommendations.—
7	(1) STUDY.—Not later than 2 years after the
8	date of the enactment of this Act, the Secretary, in
9	consultation with the Director of the National Insti-
10	tute of Standards and Technology, shall submit to
11	Congress a comprehensive study of the methods for
12	and feasibility of, determining—
13	(A) the current measures, guidelines, or
14	practices used to identify, protect, detect, re-
15	spond to, or recover from cybersecurity inci-
16	dents affecting the safety of a passenger motor
17	vehicle; and
18	(B) the following characteristics of a pas-
19	senger motor vehicle:
20	(i) The extent to which the measures
21	guidelines, or practices under subpara-
22	graph (A) are used.
23	(ii) The susceptibility to a cybersecu-
24	rity incident that affects the safety of a
25	passenger motor vehicle.

1	(iii) The degree of cybersecurity risk
2	to the safety of a passenger motor vehicle.
3	(2) RECOMMENDATIONS.—After reviewing the
4	methods and feasibility for determining the charac-
5	teristics identified under the study under paragraph
6	(1), the Secretary shall make specific recommenda-
7	tions to Congress with respect to the need for—
8	(A) further development of existing meth-
9	ods for determining the characteristics; or
10	(B) the development of new methods for
11	determining the characteristics.
12	(c) REQUIRED CONSULTATION.—In carrying out the
13	study under subsection (b)(1), the Secretary and the Di-
14	rector of the National Institute of Standards and Tech-
15	nology shall consult with passenger motor vehicle industry
16	representatives, safety organizations, security researchers,
17	and State and local government agencies that are directly
18	or indirectly affected by the matters being studied under
19	subsection $(b)(1)$.
20	(d) Information for Consumers.—To the extent
21	feasible and in the public interest, based on the results
22	of the study conducted under subsection $(b)(1)$ and the
23	activities under sections 16 and 17, as determined by the
24	Secretary, the Secretary shall—

1	(1) identify or develop specific methods to assist
2	consumers in maintaining awareness of potential
3	passenger motor vehicle cybersecurity risks and pro-
4	vide information relating to the characteristics of
5	passenger motor vehicles in a manner that would as-
6	sist consumers in decisions relating to passenger
7	motor vehicle selection; and
8	(2) compile and furnish to the public, in a sim-
9	ple, easily accessible, and readily understandable
10	form, the information to be provided under para-
11	graph (1) to facilitate comparison among the various
12	makes and models of passenger motor vehicles with
13	respect to the characteristics of the passenger motor
14	vehicles studied.
15	(e) Subsets of Motor Vehicles.—The Secretary
16	may carry out the activities under this section with respect
17	to the subsets of passenger motor vehicles, including high-
18	ly automated vehicles or partially automated vehicles.
19	(f) Public Review.—The Secretary shall—
20	(1) publish in the Federal Register the results
21	of the study under subsection (b)(1); and
22	(2) not later than 180 days before the date on
23	which the recommendations are submitted to Con-
24	gress under subsection (b)(2), provide for a period
25	of public comment on such recommendations.

1	SEC. 25. PRIVACY PROTECTIONS FOR PASSENGER MOTOR
2	VEHICLES.
3	(a) Definitions.—In this section:
4	(1) COVERED ENTITY.—The term "covered en-
5	tity' means—
6	(A) a manufacturer (as defined in section
7	32101 of title 49, United States Code); or
8	(B) a transportation network company.
9	(2) COVERED INFORMATION.—The term "cov-
10	ered information" means information that—
11	(A) a passenger motor vehicle collects, gen-
12	erates, records, or stores in electronic form;
13	(B) may be retrieved by or on behalf of the
14	covered entity that manufactures for sale or
15	lease, imports into the United States, or other-
16	wise deploys for commercial use that passenger
17	motor vehicle; and
18	(C) links or is reasonably linkable to—
19	(i) a passenger motor vehicle owned
20	by an individual;
21	(ii) an individual who owns the pas-
22	senger motor vehicle from which the infor-
23	mation was collected; or
24	(iii) a registered user.
25	(3) Registered user.—The term "registered
26	user" means an individual who subscribes to or rec-

1	isters for the use of technologies or services provided
2	for or made available through a passenger motor ve-
3	hicle.
4	(4) Transportation Network Company.—
5	The term "transportation network company"—
6	(A) means a corporation, partnership, sole
7	proprietorship, or other entity, that uses a dig-
8	ital network to connect riders to drivers affili-
9	ated with the entity in order for the driver to
10	transport the rider using a vehicle owned
11	leased, or otherwise authorized for use by the
12	driver to a location chosen by the rider; and
13	(B) does not include a shared-expense car-
14	pool or vanpool arrangement that is not in-
15	tended to generate profit for the driver.
16	(b) Notice.—
17	(1) In general.—A covered entity that col-
18	lects covered information from a passenger motor ve-
19	hicle that is first introduced into interstate com-
20	merce on or after the date that is 120 days after the
21	date of the enactment of this Act may not manufac-
22	ture for sale or lease, import into the United States.
23	or otherwise deploy for commercial use any pas-
24	senger motor vehicle unless the covered entity has
25	made available a clear and conspicuous notice about

1	the privacy practices of that covered entity associ-
2	ated with covered information collected from that
3	passenger motor vehicle.
4	(2) Public availability.—A copy of the no-
5	tice described in paragraph (1) shall be made avail-
6	able on a publicly available Internet website.
7	(c) Notice Requirements.—A notice made avail-
8	able by a covered entity under subsection $(b)(1)$ shall in-
9	clude—
10	(1) the types of covered information collected by
11	the covered entity;
12	(2) the purposes for which covered information
13	is collected, used, retained, shared, or sold;
14	(3) the types of entities with which the covered
15	entity may share covered information;
16	(4) the choices that a vehicle owner or reg-
17	istered user may have regarding covered informa-
18	tion, including—
19	(A) whether the vehicle owner and reg-
20	istered user can opt out of the collection, use,
21	retention, sharing, or selling of covered infor-
22	mation; and
23	(B) the mechanism for opting out, if avail-
24	able;

1	(5) whether and how a vehicle owner or reg-
2	istered user may access covered information;
3	(6) the deletion, data minimization, retention,
4	or de-identification of covered information; and
5	(7) how a vehicle owner or registered user may
6	contact the covered entity to inquire about the infor-
7	mation practices of the covered entity with respect
8	to covered information.
9	(d) Unfair or Deceptive Acts or Practices.—
10	A violation of this section shall be treated as an unfair
11	or deceptive act or practice in or affecting commerce for
12	purposes of section $5(a)(1)$ of the Federal Trade Commis-
13	sion Act (15 U.S.C. 45(a)(1)).
14	(e) Powers of Federal Trade Commission.—
15	The Federal Trade Commission shall enforce this section
16	in the same manner, by the same means, and with the
17	same jurisdiction, powers, and duties as though all appli-
18	cable terms and provisions of the Federal Trade Commis-
19	sion Act (15 U.S.C. 41 et seq.) were incorporated into and
20	made a part of this section.
21	(f) Savings Provision.—Nothing in this section
22	shall be construed to limit the authority of the Federal
23	Trade Commission under any other provision of law.

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2	(a)	Rulemaking.—	-Not	later	than	2	vears	after	the
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- 3 date of the enactment of this Act, the Secretary shall issue
- 4 a final rule, with due consideration for any lead time nec-
- 5 essary for compliance, that revises the motor vehicle safety
- 6 standard regarding headlamps if the Secretary determines
- 7 that a revision of such standard meets the requirements
- 8 and considerations set forth in subsections (a) and (b) of
- 9 section 30111 of title 49, United States Code.
- 10 (b) Report.—If the Secretary determines that a re-
- 11 vision to the standard described in subsection (a) does not
- 12 meet the requirements and considerations set forth in the
- 13 subsections referred to in such subsection, the Secretary
- 14 shall submit a report describing the reasons for not revis-
- 15 ing the standard to the Committee on Commerce, Science,
- 16 and Transportation of the Senate and the Committee on
- 17 Energy and Commerce of the House of Representatives.
- 18 (c) Savings Clause.—The Secretary may satisfy
- 19 the requirement under subsection (a) by finalizing the Na-
- 20 tional Highway Traffic Safety Administration's existing
- 21 rulemaking proceeding regarding headlamps.

22 SEC. 27. SAVINGS PROVISIONS.

- Nothing in this Act may be construed—
- 24 (1) to alter any existing authority under sub-
- 25 title VI of title 49, United States Code, relating to

Ĺ	motor vehicles with a gross vehicle weight of 10,001
2	pounds or more; or
3	(2) as Federal policy to prevent or prohibit any
1	individual from owning or operating a highly auto-
5	mated vehicle, regardless of the area in which the in-
6	dividual owns, operates, or intends to own or operate
7	the highly automated vehicle.