DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration

49 CFR Parts 385 and 395

[Docket No. FMCSA–2018–0248]

RIN 2126–AC19

Hours of Service of Drivers

AGENCY: Federal Motor Carrier Safety Administration (FMCSA), DOT.

ACTION: Final rule.

SUMMARY: FMCSA revises the hours of service (HOS) regulations to provide greater flexibility for drivers subject to those rules without adversely affecting safety. The Agency expands the short-haul exception to 150 air-miles and allows a 14-hour work shift to take place as part of the exception; expands the driving window during adverse driving conditions by up to an additional 2 hours; requires a 30-minute break after 8 hours of driving time (instead of on-duty time) and allows an on-duty/not driving period to qualify as the required break; and modifies the sleeper berth exception to allow a driver to meet the 10-hour minimum off-duty requirement by spending at least 7, rather than at least 8 hours of that period in the berth and a minimum off-duty period of at least 2 hours spent inside or outside of the berth, provided the two periods total at least 10 hours, and that neither qualifying period counts against the 14-hour driving window.

DATES: This final rule is effective September 29, 2020. Petitions for Reconsideration of this final rule must be submitted to the FMCSA Administrator no later than July 1, 2020.

FOR FURTHER INFORMATION CONTACT: Mr. Richard Clemente, Federal Motor Carrier Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590–0001, (202) 366–4325, *MCPSD@dot.gov.* If you have questions about viewing material in the docket, contact Docket Operations, (202) 366–9826.

SUPPLEMENTARY INFORMATION:

This final rule is organized as follows:

I. Availability of Rulemaking Documents

For access to docket FMCSA–2018–0248 to read background documents and comments received, go to *http://www.regulations.gov* at any time, or to Docket Operations at U.S. Department of Transportation, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. To be sure someone is there to help you, please call (202) 366–9317 or (202) 366–9826 before visiting the Docket Operations

II. Executive Summary

A. Purpose and Summary of the Regulatory Action

The implementation of the Electronic Logging Device (ELD) rule (80 FR 78292, December 16, 2015) and ELDs' ability to increase compliance with HOS regulations for drivers of commercial motor vehicles (CMVs) prompted numerous requests for FMCSA to consider revising certain HOS provisions to provide greater flexibility. The Agency received requests from members of Congress and multiple stakeholders seeking relief from certain provisions. In response, FMCSA published an advance notice of proposed rulemaking (ANPRM) on August 23, 2018 (83 FR 42631) and held five public listening sessions. The Agency published a notice of proposed rulemaking (NPRM) on August 22, 2019 (84 FR 44190) and held two additional public listening sessions. This final rule revises the HOS regulations to provide greater flexibility for drivers subject to those rules without adversely affecting safety.

B. Summary of Major Provisions of the Final Rule

This final rule will improve efficiency without compromising safety by providing flexibility for drivers in four areas without changing the maximum allowable driving time. The rule extends the maximum duty period allowed under the short-haul exception in 49 CFR 395.1(e)(1) from 12 hours to 14 hours. It also extends the maximum radius in which the short-haul exception applies from 100 to 150 air-miles. FMCSA modifies the definition of adverse driving conditions so that the adverse driving conditions exception may be applied based on the driver's (in addition to the dispatcher's) knowledge of the conditions after being dispatched, and extends the driving window during which the current exception for extended driving time may be used by up to 2 hours for truck and bus operations under §§ 395.3(a)(2) and 395.5(a)(2), respectively. The Agency makes the 30-minute break requirement for drivers of property-carrying CMVs in § 395.3(a)(3)(ii) applicable only when a driver has driven (instead of having been on-duty) for a period of 8 hours without at least a 30-minute non-driving interruption. The break may be satisfied by any non-driving period of 30 minutes, *i.e.,* on-duty, off-duty, or sleeper berth time. FMCSA also modifies the sleeper berth requirements to (1) allow drivers to take their required 10 hours off-duty in two periods, provided one off-duty period (whether in or out of the sleeper berth) is at least 2 hours long and the other involves at least 7 consecutive hours spent in the sleeper berth, and (2) add that neither period counts against the maximum 14-hour driving window in § 395.3(a)(2).

The Agency excludes from the final rule its proposal to allow a single off-duty period of up to 3 hours to be

excluded from the 14-hour driving window, for reasons explained later in the document.

C. Costs and Benefits

This final rule will result in increased flexibility for drivers and a quantified reduction in costs for motor carriers. Federal and State governments will incur one-time training costs of approximately $8.6 million for training inspectors on the new requirements. The Federal Government also will incur a one-time electronic Record of Duty Status (eRODS) software update cost of approximately $20,000. The change to the 30-minute break requirement will result in a reduction in opportunity cost, or a cost savings, for motor carriers. FMCSA estimates the 10-year motor carrier cost attributable to the changes to the 30-minute break provision at −$2,814.3 million (or a cost savings of $2,814.3 million). As shown in Table 1, FMCSA estimates the total costs of this final rule at −$2,366.2 million (or $2,366.2 million in cost savings) discounted at 3 percent, and −$1,917.5 million (or $1,917.5 million in cost savings) discounted at 7 percent. Expressed on an annualized basis, this equates to −$277.4 million in costs (or $277.4 million in cost savings) at a 3 percent discount rate, and −$273.0 million in costs (or $273.0 million in cost savings) at a 7 percent discount rate. All values are in 2018 dollars.

There are a number of other potential cost savings of this final rule that FMCSA considered but, due to uncertainty about driver behavior, could not quantify on an industry level. These non-quantified cost savings include increased flexibility resulting from the extension of the duty day and the air-mile radius for those operating under the short-haul exception; the increased options for drivers to respond to adverse driving conditions during the course of their duty period; reduced need to apply for exceptions from the 30-minute break requirement and for special eligibility for the short-haul exception; and increased flexibility afforded to drivers, such as increased options with regard to on-duty and off-duty time resulting from changes to the 30-minute break requirement and the sleeper berth provisions.

None of the provisions in this final rule will increase the maximum allowable driving time, but may result in changes to the number of hours driven, or hours worked during a given work shift.[1] The flexibilities in this final rule are intended to allow drivers to shift their drive and work time to mitigate the impacts of certain variables (*e.g.,* weather, traffic, detention times, etc.) and to take breaks without penalty when they need rest. FMCSA does not anticipate that any of these time shifts will negatively impact drivers' health.

FMCSA notes that drivers of property-carrying CMVs are still prohibited from driving more than 11 hours during a work shift (13 hours under the adverse driving conditions exception) and driving is prohibited after an individual accumulates 14 hours of on-duty time (16 hours under the adverse driving conditions exception). Because the rule provides greater flexibility for drivers to take breaks from the driving tasks and greater flexibility to obtain recuperative sleep, the rule will not have an adverse impact on drivers' health.

As discussed later in this document and in the RIA for this final rule, FMCSA anticipates that individual drivers may see a change in their work hours (both driving and non-driving) or vehicle miles traveled (VMT), but this final rule will not result in an increase in freight movement or aggregate VMT. Aggregate VMT is determined by many factors, including market demand for transportation services. FMCSA does not anticipate that the changes in this final rule, which produce an annual cost savings to carriers of 0.03 percent of total trucking revenues of nearly $800 billion in 2018, are sufficient to stimulate demand in the freight market, but acknowledges that freight loads may shift from one carrier or driver to another. After consideration of the potential impacts, FMCSA has determined that this final rule will not adversely affect driver fatigue levels or safety. Table 2 summarizes the changes in this rule.

TABLE 1—TOTAL 10-YEAR AND ANNUALIZED COSTS OF THE FINAL RULE

[In millions of 2018$]

Year	Federal and state government cost A	Cost due to changes in 30-min break provision B	Total costs—undiscounted C = A + B	Total costs—(7 percent discount rate)	Total costs—(3 percent discount rate)
2020	$8.6	($98.3)	($89.7)	($83.8)	($87.1)
2021	0.0	(296.1)	(296.1)	(258.6)	(279.1)
2022	0.0	(297.5)	(297.5)	(242.9)	(272.3)
2023	0.0	(298.9)	(298.9)	(228.0)	(265.6)
2024	0.0	(300.3)	(300.3)	(214.1)	(259.1)
2025	0.0	(301.8)	(301.8)	(201.1)	(252.7)
2026	0.0	(303.2)	(303.2)	(188.8)	(246.5)
2027	0.0	(304.6)	(304.6)	(177.3)	(240.5)
2028	0.0	(306.1)	(306.1)	(166.5)	(234.6)
2029	0.0	(307.5)	(307.5)	(156.3)	(228.8)
Total 10-Year Costs				(1,917.5)	(2,366.2)
Total Annualized Costs				(273.0)	(277.4)

(a) Values shown in parentheses are negative values (*i.e.,* less than zero) and represent a decrease in cost or a cost savings.

[1] For example, with the newly revised short-haul provisions in this final rule, a driver can drive for up to 11 hours maximum in the shift, and be on-duty (not driving) for a maximum of at least 3 more hours, and remain in compliance with the rule's short-haul exception provisions, assuming the driver returned to the normal work reporting location within 14 hours, and within a 150-air mile radius. By comparison, in the prior HOS short-haul exception regulations, a driver utilizing this exception was allowed to drive for up to 11 hours maximum in the shift, but had to return to the normal work reporting location within 12 (not 14) hours and 100 air miles—allowing only 1 other hour of on-duty (not driving) time.

TABLE 2—REVISED REQUIREMENTS

HOS provision	Existing requirement	Revised requirement	Impacts
Short-Haul	Drivers using the short-haul (100 air-mile radius) exception may not be on-duty more than 12 hours.	Extends the maximum duty period allowed under the short-haul exception from 12 hours to 14 hours.	Increases the number of drivers able to take advantage of the short-haul (150 air-mile) exception.
	Drivers using the short-haul (150 air-mile radius) exception applicable to drivers not requiring a CDL may not drive beyond the 14th or 16th hour on-duty, depending upon the number of days on duty.	Extends the maximum radius of the short-haul exception from 100 to 150 air-miles.	Potentially shifts work and drive time from long-haul to short-haul exception, or from driver to driver. Minimum or no change to hours driven or aggregate VMT.
Adverse Driving Conditions.	A driver may drive and be permitted or required to drive a CMV for not more than 2 additional hours beyond the maximum time allowed. However, this does not currently extend the maximum ''driving windows.''.	Allows a driver to extend the maximum ''driving window'' by up to 2 hours during adverse driving conditions. This change applies both to drivers of property-carrying CMVs (14-hour ''driving window'') and passenger-carrying CMVs (15-hour ''driving window'').	Increases the use of the adverse driving condition provision. Allows driving later in the workday, potentially shifting forward the hours driven and VMT travelled. Allows drivers time to park and wait out the adverse driving condition or to drive slowly through it. This has the potential to decrease crash risk relative to current requirements, assuming drivers now drive through adverse driving conditions. No increase in freight volume or aggregate VMT.
30-minute break	If more than 8 consecutive hours have passed since the last off-duty (or sleeper berth) period of at least half an hour, a driver must take an off-duty break of at least 30 minutes before driving.	Requires a 30-minute break only when a driver has driven for a period of 8 hours without at least a 30-minute interruption. If required, the break may be satisfied by any non-driving period of 30 minutes, *i.e.* on-duty, off-duty, or sleeper berth time.	Increases the on-duty/non-driving time by up-to 30 minutes, or allow drivers to reach their destination earlier. No anticipated fatigue effect because drivers continue to be constrained by the 11-hour driving limit and would continue to receive on-duty/non-driving breaks from the driving task. Minimal or no change to hours driven or VMT, as the current off-duty break only impacts these factors if the schedule required driving late within the 14-hour driving window.
Split-Sleeper berth.	A driver can use the sleeper berth to get the ''equivalent of at least 10 consecutive hours off-duty.'' To do this, the driver must spend at least 8 consecutive hours (but less than 10 consecutive hours) in the sleeper berth. This rest period does not count as part of the 14-hour limit. A second, separate rest period must be at least 2 (but less than 10) consecutive hours long. This period may be spent in the sleeper berth, off-duty, or sleeper berth and off-duty combined. It does count as part of the maximum 14-hour driving window.	Modifies the sleeper berth requirements to allow drivers to take their required 10 hours off-duty in two periods, provided one off-duty period (whether in or out of the sleeper berth) is at least 2 hours long and the other involves at least 7 consecutive hours spent in the sleeper berth. Neither period counts against the maximum 14-hour driving window.	Allow one hour to be shifted from the longer rest period to the shorter rest period. Potentially increase the use of sleeper berths because drivers using a berth have additional hours to complete 11 hours of driving (by virtue of excluding the shorter rest period from the calculation of the 14-hour driving window). No anticipated negative effect on fatigue because aggregate drive limits and off-duty time remains unchanged. Hours driven or VMT may change for an individual driver on a given work shift (by increased use of the sleeper berth). Total hours driven or aggregate VMT would remain the same.

III. Abbreviations and Acronyms

1935 Act The Motor Carrier Act of 1935
1984 Act The Motor Carrier Safety Act of 1984
AASM The American Academy of Sleep Medicine
ABA American Bus Association
ACPA American Concrete Pumping Association
Advocates Advocates for Highway and Auto Safety
ANPRM Advance notice of proposed rulemaking
ATA American Trucking Associations, Inc.
BLS Bureau of Labor Statistics
CAA Clean Air Act
CFR Code of Federal Regulations
CMV Commercial motor vehicle
CRA Congressional Review Act
CVSA Commercial Vehicle Safety Alliance
DOT Department of Transportation
ELD Electronic logging device
E.O. Executive Order
eRODS Electronic record of duty status
FAA Federal Aviation Administration
FMCSA Federal Motor Carrier Safety Administration
FMCSRs Federal Motor Carrier Safety Regulations
FR Federal Register
FRA Federal Railroad Administration
HOS Hours of service
IIHS Insurance Institute for Highway Safety
IBT International Brotherhood of Teamsters
IRFA Initial Regulatory Flexibility Analysis
LTL less-than-truckload
MCSAC Motor Carrier Safety Advisory Committee
MCMIS Motor Carrier Management Information System

NAPA The National Asphalt Pavement Association
National Academies National Academies of Sciences, Engineering, and Medicine
ND Naturalistic Driving
NEPA National Environmental Policy Act
NPPC National Pork Producers Council
NPRM Notice of proposed rulemaking
NSC The National Safety Council
NTSB National Transportation Safety Board
OMB Office of Management and Budget
OOIDA Owner-Operator Independent Drivers Association
RODS Record of duty status
RFA Regulatory Flexibility Act
SBA The Small Business Administration
SCE Safety critical event
§ Section
Secretary Secretary of Transportation
SBREFA Small Business Regulatory Enforcement Fairness Act of 1996
TIA Transportation Intermediaries Association
The Coalition National Coalition on Truck Parking
TL truckload
TRB Transportation Research Board
TruckerNation TruckerNation.org
TSC Truck Safety Coalition
UDA United Drivers Association
USDOT The U.S. Department of Transportation
U.S.C. United States Code
USTA United States Transportation Alliance
VMT vehicle miles traveled
VTTI Virginia Tech Transportation Institute

IV. Legal Basis for the Rulemaking

This final rule is based on the authority derived from the Motor Carrier Act of 1935 (1935 Act) and the Motor Carrier Safety Act of 1984 (1984 Act). The 1935 Act, as amended, provides that ''The Secretary of Transportation may prescribe requirements for—(1) qualifications and maximum hours of service of employees of, and safety of operation and equipment of, a motor carrier; and (2) qualifications and maximum hours of service of employees of, and standards of equipment of, a motor private carrier, when needed to promote safety of operation.'' (49 U.S.C. 31502(b)(1), (2)).

The HOS regulations below concern the ''maximum hours of service of employees'' of both motor carriers and motor private carriers, as authorized by the 1935 Act.

This rule also is based on the authority of the 1984 Act, as amended, which provides broad concurrent authority to regulate drivers, motor carriers, and vehicle equipment. It requires the Secretary of Transportation (Secretary) to ''prescribe regulations on commercial motor vehicle safety. The regulations shall prescribe minimum safety standards for commercial motor vehicles.'' The 1984 Act also requires that: ''At a minimum, the regulations shall ensure that—(1) commercial motor vehicles are maintained, equipped, loaded, and operated safely; (2) the responsibilities imposed on operators of commercial motor vehicles do not impair their ability to operate the vehicles safely; (3) the physical condition of operators of commercial motor vehicles is adequate to enable them to operate the vehicles safely . . .; (4) the operation of commercial motor vehicles does not have a deleterious effect on the physical condition of the operators; and (5) an operator of a commercial motor vehicle is not coerced by a motor carrier, shipper, receiver, or transportation intermediary to operate a commercial motor vehicle in violation of a regulation promulgated under this section . . .''. (49 U.S.C. 31136(a)(1)–(5)).

This rule is based specifically on section 31136(a)(2) and, less directly, sections 31136(a)(3) and (4). To the extent section 31136(a)(1) focuses on the mechanical condition of CMVs, that subject is not included in this rulemaking. However, as the phrase ''operated safely'' in paragraph (a)(1) encompasses safe driving practices, this final rule also addresses that mandate. To the extent section 31136(a)(4) focuses on the health of the driver, the Agency addresses that issue below. As for section 31136(a)(5), FMCSA anticipates that because the rule makes the HOS regulations more flexible, the rule will not increase the risk that drivers will be coerced to operate a commercial motor vehicle in violation of the regulations.

Before prescribing regulations under these authorities, FMCSA must consider their ''costs and benefits'' (49 U.S.C. 31136(c)(2)(A) and 31502(d)). Those factors are addressed below.

V. Background

For an extended discussion of the history of the HOS regulations, please see the NPRM (84 FR 44190, at 44193–44196, August 22, 2019). Following implementation of the ELD rule and increased accuracy in HOS tracking, FMCSA received feedback from members of Congress and other interested parties expressing the need for additional flexibility for drivers under the HOS rules.

A. OOIDA Petition for Rulemaking

On February 13, 2018, the Owner-Operator Independent Drivers Association (OOIDA) petitioned FMCSA to amend the HOS rules to allow drivers to take an off-duty rest break for up to 3 consecutive hours once per 14-hour driving window. OOIDA requested that the rest break stop the 14-hour clock and extend the latest time a driver could drive after coming on-duty.[2] However, drivers would still be limited to 11 hours of driving time and required to have at least 10 consecutive hours off-duty before the start of the next work shift.

OOIDA's petition also included a request that the Agency eliminate the 30-minute break requirement. The organization explained that there are many operational situations where the 30-minute break requires drivers to stop when they do not feel tired.

B. TruckerNation Petition for Rulemaking

On May 10, 2018, TruckerNation petitioned the Agency to revise the prohibition against driving after the 14th hour following the beginning of the work shift.[3] As an alternative, the organization requested that the Agency prohibit driving after the driver has accumulated 14-hours of on-duty time.

In addition, TruckerNation requested that FMCSA allow drivers to use multiple off-duty periods of 3 hours or longer in lieu of having 10 consecutive hours off-duty and eliminate the 30-minute break requirement.

C. Additional Petitions for Rulemaking

Two additional petitions for rulemaking were received: One from the United States Transportation Alliance (USTA) and one from the United Drivers Association (UDA).[4] The petitions were not discussed in the ANPRM due to the timing of receipt; however, they were reviewed and considered in the development of the NPRM.

The USTA petition proposed an HOS rule that would prohibit driving after 80 hours on-duty in a work week (instead of the current limits in §§ 395.3(b) and 395.5(b)), and allow a 14-hour day for driving or other work duties. Drivers' remaining 10 hours would include 2 hours of off-duty time, and 8 hours of sleeper berth time that could be split into two segments, with a minimum of 2 hours per segment. The 80-hour clock would be reset by 24 hours off-duty. The petition is included in the docket referenced at the beginning of this notice.

The UDA proposal maintained the 14/10 HOS rule; however, the 10 hours off-duty could be split into two 5-hour sleeper berth periods. The weekly on-

[2] Available at *https://www.regulations.gov/document?D=FMCSA-2018-0248-1210.*

[3] Available at *https://www.regulations.gov/document?D=FMCSA-2018-0248-0003.*

[4] Available at *https://www.regulations.gov/document?D=FMCSA-2018-0248-2550* and *https://www.regulations.gov/document?D=FMCSA-2018-0248-0342.*

duty time, after which driving would be prohibited, would be 80 hours in an 8-day period, with a 24-hour restart, similar to that proposed by USTA. The petition is included in the docket referenced at the beginning of this notice.

D. 2018 ANPRM

The August 23, 2018, ANPRM (83 FR 42631) requested public comment on four areas pertaining to the HOS rules: Short-haul operations, the adverse driving conditions exception, the 30-minute break requirement, and the sleeper berth provision. The ANPRM also sought public comment on two petitions for rulemaking relating to the HOS rules, one from OOIDA and one from TruckerNation.

E. ANPRM Public Listening Sessions

FMCSA held a series of public listening sessions following the release of the ANPRM. These were held in Dallas, Texas, on August 24, 2018; Reno, Nevada, on September 24, 2018; Joplin, Missouri, on September 28, 2018; Orlando, Florida, on October 2, 2018; and Washington, DC, on October 10, 2018.[5] Transcripts of those listening sessions are available in the public docket for the rulemaking, and are available to stream at *https://www.fmcsa.dot.gov/mission/policy/public-listening-sessions-hours-service.*

F. 2019 NPRM

FMCSA published an NPRM on August 22, 2019 (84 FR 44190). This NPRM requested comment on five topics: (1) Altering the short-haul exception to the record of duty status (RODS) requirement available to certain CMV drivers, (2) modifying the adverse driving conditions exception, (3) increasing flexibility for the 30-minute break rule by requiring a break after 8 hours of driving time (instead of on-duty time) and allowing on-duty/not driving periods to qualify as breaks, (4) modifying the sleeper berth exception to allow a driver to spend a minimum of 7 hours in the berth combined with a minimum 2-hour off-duty period, provided the combined periods total 10 hours and allowing neither period to count against the maximum 14-hour driving window, and (5) allowing one off-duty break that would pause a truck driver's 14-hour driving window.

The Agency held two public listening sessions with the first being conducted at the Great American Truck Show on August 23, 2019, in Dallas, Texas. The second listening session was held at the United States Department of Transportation (DOT) in Washington, DC on September 17, 2019.[6] Transcripts of those listening sessions are available in the public docket for the rulemaking.

VI. Stakeholder Engagement Following Publication of the NPRM

A. Summary of the Motor Carrier Safety Advisory Committee Meeting

On August 28, 2019, FMCSA announced that a public meeting of the Motor Carrier Safety Advisory Committee (MCSAC) would be held on September 30, 2019, and October 1, 2019 (84 FR 45201). As part of the Agency's efforts to engage its stakeholders and State partners in a conversational setting rather than waiting until the end of the public comment period and relying solely on submissions to the rulemaking docket, the MCSAC was asked to review the NPRM and provide feedback to the Agency. The process involved deliberations among the MCSAC members with Agency representatives present to answer questions about the contents of the NPRM and regulatory impact analysis.

In its report issued on October 15, 2019, *https://www.fmcsa.dot.gov/advisory-committees/mcsac/task-19-1-hos-report,* the MCSAC stated that it would need more information to understand the potential impacts of the proposed changes. Additionally, the MCSAC expressed concern that the rulemaking may not provide quantitative improvements to safety, although the NPRM's preamble indicated the rulemaking would increase flexibility without reducing safety. The MCSAC discussed the history of certain hours-of-service (HOS) provisions to understand the Agency's rationale for the current requirements and the reasons for proposing changes, highlighting the need to consider data and information presented by commenters to the rulemaking docket before making any final decisions about changes to the HOS rules. The MCSAC considered potential enforcement challenges associated with the proposed changes, including discussions that the use of the increased flexibility should be at the driver's discretion. The MCSAC also stated that drivers may be pressured by shippers/receivers to use the flexibility to go into an off-duty status rather than addressing detention time issues. Finally, there was concern that the Agency should not provide additional HOS flexibility to high-risk carriers with demonstrated safety performance problems and difficulty achieving compliance with the current HOS rules.

In keeping with the intent of its task to the MCSAC, the Agency did not attempt to influence the committee's deliberations or express views concerning the MCSAC's report as it was being drafted by the committee during the public meeting. The Agency used the opportunity to hear the initial reactions of a cross section of stakeholders and State partners to the HOS proposals in anticipation of the formal written comments that would be submitted to the rulemaking docket.

B. Summary of Comments Presented at the NPRM Public Listening Sessions

FMCSA held two public listening sessions during the comment period for the NPRM as part of the Agency's efforts to engage the public in a conversational setting to get a sense of their initial reactions rather than waiting until the end of the public comment period and relying solely on submissions to the rulemaking docket. During the listening sessions, a panel of Agency officials took in-person public comments and solicited online comments. The panel also answered questions and clarified parts of the NPRM when requested. Both sessions are available online, and transcripts have been placed in the docket.[7] Because the same substantive comments were also submitted in writing to the docket, FMCSA responds to these comments in the responses to written comments below.

In keeping with the intent of the public meetings, the Agency did not attempt to influence the participants' beliefs or opinions. The Agency used the opportunity to hear the initial reactions of interested parties to the HOS rule in anticipation of the formal written comments that would be submitted to the rulemaking docket. Throughout the public listening session participants were encouraged to submit written comments to the rulemaking docket and to include any information (*e.g.,* research reports or studies, etc.) and data they would like the Agency to consider.

[5] Listening sessions were announced in the **Federal Register** at 83 FR 42631, August 23, 2018; 83 FR 45204, September 6, 2018; 83 FR 47589, September 20, 2018; 83 FR 48787, September 27, 2018, and 83 FR 50055, October 4, 2018. The listening session scheduled for September 14, 2018 in Washington, DC was canceled and rescheduled.

[6] Listening sessions were announced in the **Federal Register** at 84 FR 43097, August 20, 2019, and 84 FR 45940, September 3, 2019.

[7] Available at *https://www.fmcsa.dot.gov/mission/policy/public-listening-session-live-stream-hours-service-drivers https://youtu.be/MHo6OjoBAfk, https://www.regulations.gov/document?D=FMCSA-2018-0248-8166,* and *https://www.regulations.gov/document?D=FMCSA-2018-0248-8167,* last accessed February 2, 2020.

Short-haul. Many commenters agreed with the proposed extension of the workday to 14 hours. Several commenters requested clarification of how the proposed changes would interact with each other, and about ELD use. Questions about the question of returning to their normal work reporting location were asked.

Adverse Driving Conditions. Most commenters spoke positively of the proposed changes to the adverse driving conditions rule. Several requested that the Agency clarify the criteria for acceptable use of this exception. Many commenters asked for expansion of the definition of ''adverse driving conditions''. Commenters also wanted information regarding the impact on total driving-day and cumulative hours.

30-Minute Break. Most commenters requested that the 30-minute break requirement be eliminated, arguing that it has a negative impact on safety by forcing drivers to stop when they did not need a break and to skip breaks when they need to stop because they cannot afford to lose the drive time. Other commenters provided many suggestions for additional flexibility concerning the 30-minute break.

Split-Sleeper Berth. Many commenters asked for clarification of the proposed sleeper berth provisions. Some expressed concern about how to calculate sleeper berth time under the proposed revisions, especially in relation to the 3 hour pause. Others asked for other splits.

Split-Duty Pause. Commenters primarily requested clarification regarding which operations would be able to use the proposed 3-hour pause, and expressed concern about abuse of the provision.

C. Summary of the Written Comments to the NPRM; FMCSA Responses

The NPRM comment period closed on October 21, 2019. The Agency considered late filed comments to the extent practicable and, as of November 27, 2019, had received a total of 2,874 submissions to the docket.

1. Agency Approach To Reviewing Research Cited in the Written Comments

Methodology of Comment Evaluation. Because of the level of Congressional and public interest in this HOS rulemaking, FMCSA shares with interested parties its methodology for analyzing almost 3,000 submissions to the rulemaking docket. Approximately 200 studies were cited in written comments to the NPRM. To ensure that FMCSA did not overlook any relevant research, the Agency created a list of those studies for systematic review.

FMCSA notes that while conducting HOS rulemakings over the past 25 years, the Agency has examined many studies on the effects of time on task on fatigue, and of fatigue on safety. Some of the studies are based on laboratory experiments with closely controlled inputs, while others are derived from technical data generated by drivers operating instrumented trucks. Still others involve extensive surveys of CMV drivers. The number of subjects or survey respondents varies enormously, from a few dozen to many thousands. None of these studies were considered as representative of every aspect of the enormously varied motor carrier industry.

The FMCSA acknowledges that no single study that it previously reviewed or referenced in responses to the 2019 NPRM addresses all of the proposed changes. The results of the various studies are not uniform, rarely converging in a straightforward conclusion about specific work-rest schedules. FMCSA therefore considered the wide range of studies, including those provided or cited by commenters, to draw conclusions about the overarching HOS principles based on its own experience and expertise and the extensive, but inconclusive, body of evidence currently available.

Procedural Matters. A few commenters addressed procedural matters regarding the proposed rule. Three requests for an extension of the public comment period were received. FMCSA extended the public comment period from October 7 to October 21, 2019.[8]

2. General Comments on the Rulemaking

Agreement with Proposed Revisions. Approximately 530 submissions expressed general agreement with the proposed changes. Many of these included individuals and drivers who stated their general agreement with the proposal without providing substantive rationale. Numerous commenters stated that the proposed changes:

- Increase flexibility;
- Improve highway safety;
- Provide drivers with greater control when and where to take rest breaks;
- Increase efficiency and productivity; and,
- Reduce driver stress and fatigue.

Safety for the Long Haul, Inc. and OOIDA stated that the proposed revisions would increase driver flexibility and efficiency without adversely affecting driver alertness. However, Safety for the Long Haul also argued that the ''ND [Naturalistic Driving] Mixed Safety-Critical Event'' (SCE) method for assessing fatigue, as referenced in the Agency's NPRM, is flawed. OOIDA commented that the proposed rule would improve trucker safety, as drivers know best when they need to take a break or whether driving conditions are unsafe.

A few industry associations commented that current HOS rules have contributed to increases in crashes involving trucks. One association commented that current HOS rules may pressure drivers to rush or continue driving despite being fatigued. They believe the proposed changes would provide greater flexibility for drivers to take breaks from the driving task.

Several industry associations and companies from the agricultural, beverage, construction, concrete, forest products, packaging and recycling, and livestock sectors of the motor carrier industry stated that the proposed rule would benefit their members.

The National Motor Freight Traffic Association, Inc. commented that the proposed rule would help ''less-than-truckload'' drivers, who have relatively regular schedules but who are susceptible to poor traffic conditions; they can usually obtain adequate rest and complete their work safely. Another industry association generally supported the proposed rule for its different treatment of long-haul, regional, and short-haul trucking.

Several construction industry associations supported the proposed rule but requested that the construction industry be exempted from HOS regulations.

FMCSA Response: FMCSA agrees that the relief provided through this rulemaking will benefit some of the industries or distinct operations (*e.g.,* propane delivery) currently seeking relief through exception or other means.

As for industry-specific exceptions or regulatory relief, it should be noted that FMCSA has already granted exemptions from specific HOS requirements to various industry segments and motor carriers, including some related to the regulations addressed in the NPRM. The exemptions were granted through a public notice-and-comment process authorized by 49 U.S.C. 31315, with implementing regulations provided in 49 CFR part 381.

Three exemption applications concerning an extension of the short-haul duty day from 12 to 14 hours have already been granted to the following: (1) Waste Management, Inc.; (2) the American Concrete Pumping

[8] 84 FR 49212, September 19, 2019.

Association (ACPA); and (3) the National Asphalt Pavement Association (NAPA). In addition, NAPA requested and received an exception from the 30-minute rest break provision, allowing its members to use 30 minutes of ''waiting time'' or ''attendance time'' to satisfy the break requirement.

Others who have requested and received similar exemptions from the 30-minute rest break include the National Pork Producers Council (NPPC) for drivers transporting livestock, ACPA, the American Trucking Associations, Inc. (ATA) for placarded hazardous materials loads, the Department of Energy for special category (often nuclear) shipments, the National Tank Truck Carriers, the Oregon Trucking Associations, the Specialized Carriers and Rigging Association, and the U.S. Department of Defense's Military Surface Deployment and Distribution Command.

This final rule does not include industry-specific relief (*i.e.,* regulatory exceptions). However, FMCSA notes certain industries may find their concerns about HOS addressed by this rule. As noted above, the requirements concerning applications for exemptions or requests for waivers are described in 49 CFR part 381, and interested parties that continue to believe that additional flexibility is needed should review part 381 to determine whether an exemption application may be warranted. The Agency notes that such requests should consider the statutory requirement that the exemption must be likely to achieve a level of safety equivalent to or greater than the level of safety provided absent the exemption.

Disagreement with the Proposed Changes to the HOS Requirements. Approximately 215 commenters expressed general disagreement with the proposed rule. Numerous commenters, mostly individuals, opposed the rule without further explanation. Many of these commenters, including individuals and drivers, stated that the proposed rule:

- Enables companies to abuse drivers;
- Fails to promote safety;
- Does not provide enough flexibility;
- Adds confusion when looking at the provisions overall;
- Decreases efficiency and productivity; and,
- Does not address the lack of parking and problems associated with ''pay to park'' schemes.

Many of the commenters who opposed the rule argued that the proposed rule would contribute to the prevalence of driver fatigue and threaten public safety through an increase in fatigue-related crashes. Among the commenters articulating variations on this theme were the National Transportation Safety Board (NTSB), the National Safety Council (NSC), the American Academy of Sleep Medicine (AASM), Advocates, Road Safe America, Senator Patty Murray, the International Brotherhood of Teamsters (IBT), and the Truck Safety Coalition (TSC). Representative Greg Steube argued that the current proposal does not do enough to fully address safety and logistics issues. The NSC, Advocates, IBT, and TSC cited data about the importance of healthy sleep patterns and the safety risks of fatigued driving. Road Safe America and Senator Murray argued that the proposed rule would increase the likelihood that motor carriers would coerce drivers into working while fatigued, creating unsafe road conditions for drivers and other motorists. The Institute for Policy Integrity argued that the proposed rule is too focused on flexibility for drivers and that FMCSA should consider the effects of the proposed rule on drivers' health.

Representative Peter DeFazio warned that the proposed rule significantly expands on-duty time for truck drivers, deprives drivers of true rest, and passes more of the inefficiencies and uncertainties of goods movement on to drivers who have little economic leverage. Congressman DeFazio also argued that the changes may seem modest, but instead represent a ''substantial backslide'' in a 24-year process to update on-duty rules and reduce fatigue among commercial drivers—which has been ''painstakingly'' debated by FMCSA, Congress, and the courts. However, many other commenters felt strongly that the additional flexibility would minimize the stress on a driver that results under the current rules.

The Small Business in Transportation Coalition expressed concern that the proposed rule would be difficult to enforce and that drivers needed greater flexibility. Another commenter argued that free market forces will correct the challenge of long detention times at shippers' and receivers' facilities, and that the proposed rule would be counterproductive in resolving this issue.

Senator Murray claimed the proposed rule contravened FMCSA's mandate by unreasonably extending drivers' work hours, eliminating drivers' right to sufficient rest, and threatening the safety of drivers and the public. Advocates asserted that FMCSA's reasoning for each of the proposals in the NPRM is baseless, misrepresentative, or based on incorrect reinterpretation of research and often in direct contradiction of earlier Agency findings and statements.

The Institute for Policy Integrity urged FMCSA to analyze each proposed provision's effect on driver health, including driver morbidity, chronic health conditions, obesity, and exposure to diesel exhaust. Another commenter recommended that FMCSA consider amending the proposed changes to include screening for sleep problems, such as Obstructive Sleep Apnea, and then prescribing practical solutions if the driver is diagnosed with a sleep problem.

ATA expressed conditional support for some provisions of the rule. IIHS, ATA, and a few industry associations argued that more research would be needed before the rule or individual provisions could be adequately evaluated. Trucking Solutions Group provided conditional approval if FMCSA would wait for the full effects of the ELD mandate on the industry to occur before undertaking a new rulemaking.

FMCSA Response: FMCSA acknowledges commenters concerns. However, the Agency concludes that the changes adopted today will not result in the adverse safety consequences they described. None of the revisions in this rule allow truck drivers additional driving time beyond the 11-hour limit provided in the current regulations (or the 13-hour limit provided with the current adverse driving conditions exceptions). Except for the adverse driving conditions provision, none of the revisions allow drivers to operate a CMV after accumulating 14 hours of on-duty time during a work shift. Consistent with the Agency's rationale for adopting the 14-hour rule, none of the revisions allow the use of multiple or intermittent off-duty breaks to extend the work-shift. Also, the weekly limitations under the 60/70-hour rules concerning the maximum number of on-duty hours that may be accumulated before driving is prohibited remain unchanged. Furthermore, none of the revisions relieve motor carriers and drivers of the explicit prohibitions against: (1) Operating commercial motor vehicles while ill or fatigued, or (2) coercing drivers to violate Federal safety rules. Therefore, the basic parameters of the HOS rule that are essential to safety remain unchanged.

Regarding the extension of the driving window to 16 hours during ''adverse driving conditions,'' drivers will no longer need to stay on the road during such conditions to avoid the impending closure of the previous 14-hour driving window. Therefore, the added flexibility

will not decrease safety during adverse driving conditions.

Regarding the proposal to allow drivers to pause the 14-hour driving window by taking up to 3 hours off-duty, the Agency intended to give drivers the ability to adjust their operations such that they could defer work, especially driving time, until the conditions were conducive to greater efficiency. The NPRM considered that the pause could have been as short as 30 minutes or as long as 3 hours, provided the driver was relieved of all responsibility for performing work, with the assumption being that pauses up to 3 hours would allow drivers to obtain rest during the extended window. Drivers would have the opportunity to take a meaningful rest break during the work shift but still be required to have 10 consecutive hours off duty at the end of the work shift.

As explained elsewhere in the preamble, FMCSA has decided that further information is needed concerning the potential for unintended consequences associated with the pause and therefore has not included that provision in this final rule.

As to driver health, the Agency acknowledges that the effect of specific regulatory changes on driver health is difficult to evaluate. First, most health conditions have multiple contributing factors and are discernible only over extended periods. Second, a cause-and-effect relationship between a rule and a given health outcome is difficult to establish. Driver health issues were addressed extensively in the 2005 final rule [70 FR 49978, 49982–49992, August 25, 2005]. The preamble noted that ''FMCSA has reviewed and evaluated the available and pertinent information concerning driver health, with emphasis on chronic conditions potentially associated with changes from the pre-2003 and 2003 rules, to this final rule. The research on CMV driver health falls into several broad categories: (1) Sleep loss/restriction, (2) exposure to exhaust, (3) exposure to noise, (4) exposure to vibration, (5) cardiovascular disease, (6) long work hours, and (7) shift work and gastrointestinal disorders'' (70 FR 49978, 49982).

The Agency concluded that the 2005 rule would not have any effect on those potential health issues. That discussion remains applicable today with only a few changes. For example, FMCSA noted in 2005 that attempts to create a dose-response curve for the effects of exposure to diesel exhaust had not produced clear-cut results (70 FR 49983). Such an attempt would be even less useful today because exposure to diesel exhaust has declined significantly in the last 15 years as a result of the tightened EPA standards discussed in the 2005 rule. The incremental changes adopted in this final rule, though useful to motor carriers and drivers, do not change the conclusions explained in the 2005 final rule. As pointed out in the 2005 HOS final rule (70 FR 49978, 4983, August 25, 2005), attempts to create a dose-response curve for the effects of exposure to diesel exhaust, for example, have not produced clear-cut results. Such an attempt would be even more difficult for the incremental HOS changes promulgated today.

However, based on the current scientific information and its own experience with Hours of Service regulation, FMCSA concludes that the changes made by this final rule are safety- and health-neutral. For example, the expansion of the short-haul workday from 12 to 14 hours simply gives short-haul carriers the same driving window that other carriers have used for many years. The 14-hour HOS limit now applicable to both short- and long-haul carriers is consistent with the statutory obligation to protect driver safety and health (49 U.S.C. 31136(a)(2), (4)), as shown by the extensive discussion in the 2005 final rule (70 FR 49978, 49982 *et seq.*). Moreover, FMCSA requires that interstate drivers subject to the physical qualifications standards under 49 CFR part 391 obtain proof of their physical qualifications from a licensed healthcare professional listed on the Agency's National Registry of Certified Medical Examiners. These healthcare professionals must be licensed by the State, complete a training program concerning FMCSA's physical qualification standards, and pass a test concerning the Federal requirements. These Medical Examiners are likely to provide some level of education at the time of the exam if drivers exhibit specific health issues.

As to obstructive sleep apnea, the Federal Motor Carrier Safety Regulations (FMCSRs) do not require medical examiners to screen CMV drivers for sleep disorders, and the Agency does not provide criteria for determining whether an individual should be referred for a sleep study evaluation. FMCSA relies on Certified Medical Examiners who have proper licensure, training, and medical knowledge to apply independent medical judgment based on the individual's complete medical history, including risk factors, and clinical findings from the physical examination when making medical determinations concerning screening, testing, and treatment, for obstructive sleep apnea. FMCSA notes that obstructive sleep apnea is a condition for which there are effective treatments available, and drivers who follow the prescribed treatment regime after being diagnosed may be medically certified.

Problems caused by detention time and parking shortages have been apparent for many years. However, these issues are beyond the scope of this rulemaking.

The purpose of this rule is to enhance the operational flexibility of drivers and carriers, without compromising the Agency's statutory safety mission. Many commenters stated that the current HOS requirements are too restrictive and that their removal would not adversely affect safety; but those assertions are supported only with personal anecdotes. While stakeholders' personal experiences inform the Agency's decision-making process, further evidence is generally required to support changes to the FMCSRs.

Neutral Comments and Comments on HOS-Related Issues Beyond the Scope of the NPRM. Approximately 1,460 comments, mostly from individuals and drivers, provided mixed, neutral feedback on the proposal. In addition, some drivers and individuals addressed certain provisions of the NPRM while remaining silent on other provisions. Some individual commenters and drivers provided conditional support while others neither provided an opinion nor suggested alternatives to the NPRM.

Approximately 630 submissions concerned aspects of the HOS rules that were not covered in the NPRM. Numerous individuals and drivers made the following types of suggestions:

- Eliminate the 14-hour window;
- Eliminate or revise the 34-hour restart provision;
- Eliminate the 70-hour rule prohibiting driving after the driver has accumulated 70 hours of on-duty time in 8 consecutive days;
- Eliminate the use of ELDs;
- Allow drivers to develop their own drive/rest schedules;
- Exempt small businesses from the HOS rules or create separate rules applicable to small fleets;
- Extend driving time from 11 to 12 or 13 hours;
- Address the amount of time drivers are held up at shippers or receivers;
- Address the lack of parking and ''pay to park'' schemes; and,
- Drivers should be paid hourly instead of by the mile.

Multiple individual commenters and drivers briefly summarized alternative or ''simplified'' HOS requirements that they would prefer (*e.g.,* maximum 9-hour drive time in a 12-hour workday;

12 on-duty/12 off-duty; 13 hours of drive time in a 24-hour workday; 14- or 16-hour total workday; 77 hours in 8 days, etc.).

FMCSA Response: FMCSA acknowledges the concerns of commenters that opted not to take a position on certain aspects of the proposal. Each aspect of the NPRM addresses a piece of a complex puzzle concerning the flexibility needs for different segments of the transportation industry. For certain segments of the industry, a single element of the NPRM would provide all the flexibility necessary while other segments may benefit from two or more elements. This final rule is intended to provide reasonable adjustments to the HOS requirements to allow for increased flexibility without decreasing safety.

FMCSA also acknowledges commenters' interest in changing major provisions of the HOS requirements. However, these issues are beyond the scope of this rulemaking. In some of these cases such as an extension of the driving time limits or the elimination of the 70-hour rule, additional research would be needed to support changing the basic parameters of the HOS rules that have been previously determined to be important in minimizing the risk of fatigue. And several of the issues raised by commenters are beyond FMCSA's statutory authority (*e.g.,* driver compensation, elimination of ELDs).

In response to commenters' concerns about third parties such as shippers and receivers forcing drivers to violate HOS rules or creating an environment where drivers are unable to take advantage of the work time allowed, the Agency issued a final rule in 2015 prohibiting motor carriers, shippers, receivers, and transportation intermediaries from coercing drivers to operate CMVs in violation of certain FMCSA regulations, including the HOS regulations in 49 CFR part 395 (See 49 CFR 390.6). In addition, the Occupational Safety and Health Administration in the Department of Labor has authority under 49 U.S.C. 31105 to take remedial action against employers who have discharged or discriminated against employees who refuse to violate the FMCSRs.

Comments on Issues and Industry Concerns Separate from the HOS Rules. Approximately 30 submissions addressed topics that involved safety but were separate from the HOS requirements. The topics included:

- Education for the public on safe driving procedures around trucks;
- Inspection of trucks crossing the U.S. border;
- Public respect for truck drivers;
- Improvements to rest areas;
- CMV driving speeds;
- The impact of certain States' laws on interstate commerce; and,
- The ability of drivers to participate in public listening sessions.

FMCSA Response: While the topics raised by these commenters are important, they do not relate to the specific revisions proposed at the NPRM stage of the rulemaking or adopted through this final rule.

The Agency nevertheless acknowledges commenters' concerns about these issues and has acted in several of these areas. For example, the Agency launched ''Our Roads, Our Safety,'' a national safety campaign shaped to raise public awareness about sharing the road safely with large trucks and buses.

On the topic of truck parking, FMCSA is an active participant in the National Coalition on Truck Parking (the Coalition). The U.S. Department of Transportation (USDOT) and several stakeholder organizations established the Coalition in August 2015 as a response to a documented need for truck parking solutions. Stakeholders engaged in the Coalition represent the trucking industry, commercial vehicle safety officials, State departments of transportation (DOTs), and commercial truck stop owners and operators.

Finally, about the inspection of trucks crossing the U.S.-Mexico border, in each of the past 4 years FMCSA and its State partners conducted more than 250,000 inspections of commercial motor vehicles operated by Mexico-owned or Mexico-domiciled motor carriers.[9]

3. Short-Haul Operations

NPRM. The NPRM proposed extending the maximum allowable workday for property-and passenger-carrying CMV drivers under the § 395.1(e)(1) short-haul exception from 12 to 14 hours to correspond with the 14-hour limit for property-carrying drivers in § 395.3(a)(2). The Agency proposed extending the existing distance restriction under this provision from 100 air-miles to 150 air-miles to be consistent with the radius requirement for the short-haul exception applicable to drivers of CMVs not requiring a CDL (§ 395.1(e)(2)). Under the proposal, truck drivers would continue to be limited to 11 hours of driving time, and passenger carrier drivers to 10 hours of driving time. FMCSA proposed requiring all CMV drivers using the § 395.1(e)(1) exception to complete their workday within 14 hours of the beginning of the work shift.

The NPRM also sought additional information and data on the impacts of expanding the short-haul exception provision, in part to assess its potential costs and benefits. Specifically:

- How would this change impact the motor carriers' ability to enforce the HOS rules? What enforcement difficulties may arise from expanding both the time and distance requirements?
- Would drivers drive farther or longer in the driving window under the short-haul exception? Would this be different than these loads being hauled by drivers complying with the ELD requirements?
- Would the elimination of the 30-minute break requirement for drivers that are potentially driving later in their duty period impact safety?
- What cost savings are expected from not having to comply with the ELD requirements?

In addition, some commenters to the ANPRM requested that drivers using the short-haul exception be allowed to end their work shift at a different location than the one from which they were dispatched. FMCSA therefore included a request for public comment about this suggestion, including which segments of the motor carrier industry would be impacted by it and whether it would have an adverse effect on safety, or lead to operational changes such as increased driving time per trip or driving in the 12th and 13th hour after coming on-duty.

Commenters Supporting an Increase to the 12-Hour Limit for Short-Haul Operations. Approximately 240 submissions supported the proposal to extend the maximum allowable workday under the short-haul exception from 12 to 14 hours. Many of the commenters, including drivers and individuals, stated that the additional flexibility would be helpful or would positively impact them or their company. Some of the specific benefits commenters mentioned included:

- Extending the short-haul provision to 14 hours would reduce the burden of switching to logbooks and installing ELDs;
- The provision would allow dispatchers to schedule loads and routes more efficiently;
- Short-haul drivers should be allowed to work as many hours as over the road drivers;
- The added flexibility will increase safety because short-haul drivers will be under less pressure to ''beat the clock;''

[9] Available at *https://ai.fmcsa.dot.gov/SafetyProgram/MexicanCarriers.aspx,* last accessed February 5, 2020.

• The proposed changes to the exception would reduce compliance burdens;
• The extra time will help improve transportation productivity efficiency, such as truck utilization and driver optimization, thereby reducing costs; and,
• Extending the short-haul provision from 12 to 14 hours would not negatively impact safety.

Many commenters, including OOIDA, the American Bus Association (ABA), the U.S. Chamber of Commerce, trucking industry associations and motor carriers expressed support for extending the 12-hour short-haul exception to 14 hours. These commenters believed the change would afford drivers greater flexibility by allowing them more time to complete trips during peak periods, more non-consecutive driving hours, and a larger window to return home if drivers encounter unexpected delays during their shift. Several associations representing specific segments of the trucking industry and motor carriers reiterated that the increased flexibility would positively impact them, their members, or their segment, including agricultural operations supporting aerial crop dusting, motorcoach businesses, towing and recovery companies, retailers, beverage producers and distributors, construction and manufacturing businesses, and propane gas delivery businesses. A few commenters remarked that the proposed change would provide small businesses partial relief from the chronic shortage of CDL drivers nationwide because the additional 2 hours of on-duty time per shift would increase the productivity of drivers already on the payroll.

Multiple commenters, including OOIDA, the Commercial Vehicle Safety Alliance (CVSA), and some motor carriers and drivers, stated that extending the limit for the short-haul exception from 12 to 14 hours would align the exception with existing requirements for long-haul, regional, and over the road drivers and thereby simplify enforcement and improve compliance. A few commenters, including the U.S. Chamber of Commerce and industry associations, remarked that for companies that manage a variety of trucking operations, the proposed change would facilitate compliance because more operations would follow the same set of rules making fleet management easier, and reducing the possibility of inadvertently violating the rules. Some commenters, including several motor carriers, said that the proposal would remove the need for multiple exemptions from the HOS rules and make the standards more consistent for all drivers.

Many commenters, including individuals, drivers, motor carriers, and industry associations, stated that this proposed change would allow many more drivers to qualify for the short-haul exception. A few commenters, including Transco, Inc. and the National Limousine Association, stated that the provision would allow more frequent use of the exception and include the benefit of not having to complete a driver's daily graph grid log or use an ELD. Others stated that the proposal would enable more drivers to go home at night rather than sleeping in hotels, improving not only rest, safety, and productivity, but also saving the company on costs.

FMCSA Response: The Agency agrees with those commenters who believe the proposed changes to the current short-haul provisions would provide increased flexibility for both motor carriers and drivers who utilize the exception. FMCSA continues to believe the extension of both the 12-hour limit to 14 hours, and the 100 air-mile radius to 150 air miles will provide the increased flexibility for drivers without compromising overall safety.

The Agency emphasizes, however, that the changes to the short-haul exception finalized in this final rule allow neither additional drive time during the workday, nor driving after the 14th hour from the beginning of the workday. Because the extension of the air-mile radius and the workday does not extend the maximum allowable driving time or the 14-hour window, FMCSA does not anticipate adverse impacts on safety.

FMCSA also agrees with commenters who stated that the proposed changes to the short-haul exception this final rule would allow more drivers to be consistently eligible for the short-haul exception. Thus, they will be excluded from the requirement to take a 30-minute break or prepare daily RODS, potentially with an ELD if the carrier exceeded the short-haul limits more than 8 days within a 30-day period. Carriers now have the flexibility to meet existing and future market demands for services within a larger area that could be covered within a 14-hour duty day. Services may now be provided more efficiently (*i.e.,* not incurring the costs of preparing RODS and retaining supporting documents for the days drivers did not satisfy the short-haul limits) without compromising safety.

FMCSA notes that short-haul carriers must maintain accurate records concerning drivers' schedules. These time records must document when drivers report to work and are released from work. The Agency may review carriers' records to determine whether drivers have traveled to locations beyond the distance limits.

Regarding the issue of more uniform enforcement of the short-haul provisions based on the changes in this final rule, FMCSA anticipates that the number of associations, organizations and companies seeking exceptions via 49 CFR part 381 provisions will considerably decrease and enforcement agencies will not have to monitor the list of active exemptions to avoid errors in citing carriers operating under an exemption. Because most of the exemptions are granted to groups or associations on behalf of their motor carrier members, enforcement officials need to understand the scope of the exemption so that when commercial vehicle inspections are performed, the enforcement official can make the determination whether the exemption covers the specific driver or carrier being inspected, and how the remaining HOS requirements are to be applied to that driver.[10] Several of these applications for exemption have been granted by the Agency in the past, including some that extended the 12-hour short-haul limit to 14 hours.

Commenters Seeking Flexibility Beyond the Proposed Revisions to the Short-Haul Time Limits. An individual said the provision is ''90% good'' but would not help the sub-class of short-haul drivers that primarily do ''drop and hook.'' [11] Another commenter said short-haul drivers should be allowed a 16-hour day. Another individual familiar with oilfield operations said that the short-haul exception should allow up to 15 hours of driving time, since oilfield workers must often be on-site for 12 hours. TruckerNation reasoned that, while expanding the short-haul exception to 14-hours would create a uniform duty day for all CMV drivers and decrease unnecessary complexity, reducing the complexity for drivers may increase the probability of inconsistent enforcement actions.

FMCSA Response: The Agency believes this final rule provides an appropriate amount of flexibility while ensuring that safety is not compromised. As noted above, none of proposals included in the NPRM and adopted today allow truck drivers additional

[10] In the calendar year 2018, FMCSA received 6 exemption requests regarding the short-haul provision. The majority concerned an extension from 12 hours to 14 hours.

[11] This is a term that refers to when a driver drops the trailer and simply picks up a new trailer; in other words, a delivery where no loading or unloading is required.

driving time beyond the 11-hour limit provided in the current regulations (or the 13-hour limit provided with the current adverse driving conditions exceptions). Except for the adverse driving conditions provision, none of the revisions allow drivers to operate a CMV after accumulating 14 hours of on-duty time during a work shift. Consistent with the Agency's rationale for adopting the 14-hour rule, none of the revisions allow the use of multiple or intermittent off-duty breaks to extend the work-day which would in turn increase the risk of driver fatigue.

Based upon the many research studies the Agency has reviewed over the past 25 years of conducting HOS-related rulemakings, the Agency believes it would be inappropriate to consider amending the rules to allow more than 11 hours of driving time, without taking the required 10 consecutive hours off-duty (property carriers). Aside from adverse driving conditions, it would also be inappropriate to allow a 16-hour driving window, during which drivers could operate a CMV after accumulating 14 hours of on-duty time during a work shift.

Finally, the Agency does not anticipate that enforcement difficulties will arise from the expansion of on-duty hours permitted under the exception. The employer must still maintain and retain accurate time records for a period of 6 months showing the time the duty period began and ended, and the total hours on-duty each day in place of RODS (§ 395.1(e)(1)(v)).

Commenters Opposed to Increasing the 12-Hour Limit for Short-haul Operations. Some individuals and drivers raised arguments against the proposal:

- The provision would allow companies to force drivers to extend their workdays.
- Short-haul drivers should be limited to a 12-hour workday; any more would increase driver fatigue and be a detriment to safety.
- Short-haul drivers can already run a 14-hour day, so the proposal would just make HOS regulations more difficult to enforce.

Advocates argued that the proposed changes to the short-haul exception would extend drivers' duty hours, extend driving hours later into the duty period, increase the number of carriers operating under the exception, and thereby increase the number of drivers not provided adequate rest breaks, and impair enforcement.

A number of commenters, including some individual commenters and drivers, asked questions about the increased driving window of the short-haul exception:

- How will FMCSA monitor and keep carriers from allowing abuse and driving over the 11-hour driving limit?
- How will FMCSA protect against ''stacking'' (allowing a 19-hour day by combining the 2-hour adverse driving condition exception and a 3-hour ''pause'' to the 14-hour window)?
- Why are trucks without sleeper berths not allowed to run 12 hours or stop the clock during pickup or delivery?
- Why did FMCSA not consider a straight 13/16-hour day for all CMV operators?

A few commenters, including the Trucking Alliance, industry associations, and motor carriers, indicated they would support the increase from 12 to 14 hours only if an ELD were required to track a driver's HOS. The Trucking Alliance argued that having ELDs on board all trucks would ensure compliance, improve highway safety, and reduce the risk of large truck crashes. ATA stated that, while they supported the proposed expansion of the short-haul exception, they were concerned that it would increase the number of drivers who would no longer be required to use an ELD, and even that ELDs would be removed from some vehicles. Schneider National Carriers, Inc. stated that while ''neutral'' with respect to the proposed 14-hour day, it favored an ELD requirement to deter abuse.

Citing results of a membership survey, ATA concluded that the number of motor carriers that would become exempt under the proposed short-haul exceptions would be ''small but not insignificant.''

An individual said FMCSA should be more specific regarding which drivers would qualify for the proposed short-haul exception changes.

The California Highway Patrol warned that an expansion of the short-haul exception to 14 hours would make impossible discovery of 11-hour violation(s) by enforcement personnel, foster noncompliance, and would not be prudent in large States.

FMCSA Response: The Agency acknowledges commenters' concerns about extending the driving window. However, the Agency emphasizes that the HOS requirements for drivers using RODS allow up to 11 hours of driving time within a 14-hour window, following 10 consecutive hours off-duty. Short-haul drivers who exceed the current 12-hour limit for returning to the normal work-reporting location can already operate using the 14-hour window for up to 8 days in any 30-consecutive-day period without an ELD, provided they keep paper RODS for those days. If they are willing to use an ELD, these drivers could simply operate under the same HOS limits as regional and long-haul drivers. Whether to do so is a business decision on the part of the motor carrier. The extension to 14 hours will relieve some short-haul drivers of the pressure to drive at a higher speed to finish their 11 hours of driving time and return to their duty reporting location within 12 hours.

FMCSA also acknowledges the comments about monitoring compliance and enforcement challenges under the short-haul provision. However, the techniques currently used to enforce the HOS requirements for short-haul drivers will be the same whether the maximum work shift is 12 or 14 hours. FMCSA does not agree that the changes to the short-haul provision would make discovery of violations impossible or foster noncompliance with the underlying HOS requirements.

As noted above, employers must maintain and retain accurate time records for a period of 6 months showing the time the duty period began and ended, and the total hours on-duty each day in place of RODS (§ 395.1(e)(1)(v)).

Expanding the duty period to 14 hours, without increasing the existing 11 hours of driving time, will allow short-haul drivers to spend time with customers, respond to changes in market demand, such as peak holiday delivery times, and reduce the administrative burden of determining how often a driver has gone beyond 12 hours or 100 air-miles in any 30-consecutive-day period. Because the changes to the short-haul exception will not extend the workday beyond the current 14-hour driving window, FMCSA has no reason to believe that the revised rule will adversely impact safety.

Neither of the changes to the short-haul exception increase the opportunities to falsify time records. If anything, the changes remove pressure from short-haul drivers to ''beat the clock.'' Furthermore, the Agency agrees with ATA and has retained the requirement for drivers to return to the normal work reporting location at the end their work shift, rather than having the option of ending the shift at a different location. This will help to ensure compliance with the short-haul exception to the RODS requirement.

The FMCSA acknowledges commenters' overall concerns that an expansion of the short-haul provision (both the extension of the time and distance limits) would result in fewer

motor carriers and drivers being required to use ELDs. However, this fact, in and of itself, does not mean that the carriers in question would experience increased levels of non-compliance with the applicable HOS rules or increases in crash involvement. Enforcement of the short-haul provision during vehicle inspections has always presented a challenge because officials do not have access to supporting documents, specifically records indicating when the driver began the work day. However, enforcement at a terminal or the principal place of business generally provides a better opportunity to investigate compliance with the hours-of-service requirements. At such time, enforcement personnel will continue to focus on (1) the time between the driver reporting to the normal work-reporting location and the time the driver is released from work, and (2) the maximum distance the driver traveled from the normal work-reporting location. The enforcement official could request certain records that would identify where the driver traveled and the time spent at those locations. Because of the inherent nature of short-haul operations (*e.g.,* several stops for pick-up and/or delivery during the shift, or a few trips with extended periods at the delivery/service site, etc.) and the distance limitation, the Agency does not believe short-haul CDL drivers will have more opportunities or incentives to exceed 11 hours of driving time within the 14-hour window than non-CDL short-haul drivers who already have these time and distance limits. Short-haul drivers do not have the opportunity to pause the 14-hour clock while drivers are loading and unloading at the various points at which services are being provided. Safety investigators will continue to sample and examine time cards and other HOS records during compliance investigations.

The Agency reviewed its December 16, 2015, final rule establishing the ELD mandate and the accompanying Regulatory Impact Analysis. Based on the 2015 analysis, the Agency estimated that the annualized safety (crash reduction) benefit for mandating ELDs for all CMV operations (including short haul) subject to the HOS requirements would be $687 million while the annualized safety benefit for mandating ELDs for all CMV operations where the driver is required to prepare RODS would be $572 million. The values were presented in 2013 dollars at a 7% discount rate. The Agency explained:

''Safety benefits of requiring ELDs are higher when all regulated CMV operations are included in the ELD mandate . . ., but the marginal costs (ELD costs plus compliance costs) of including these operations are more than 3½ times higher than the marginal benefits. . . . [Short-haul] drivers who do not use RODS, have better HOS compliance, and much lower crash risk from HOS noncompliance. For the [short-haul] non-RODS subgroup, FMCSA's analysis indicates that ELDs are not a cost-effective solution to improving the HOS compliance of [short-haul] non-RODS drivers. This result is consistent with that of past ELD analyses.''

In consideration of the above discussion, FMCSA believes the decrease in the number of carriers using ELDs will be limited because the change impacts only the CDL holders who currently travel between 100 and 150 air-miles from the normal work-reporting location, and return to that location within 12 to 14 hours each day. And, the Agency continues to believe ELDs are not a cost-effective solution to ensuring HOS compliance for these drivers because, as discussed below, short-haul operations are essentially self-limiting due to the nature of the operations and requirement to return to the reporting location.

Commenters Supporting the Expansion of the 100 Air-Mile radius to 150 Air-Miles, but not the 12-hour limit. Multiple commenters, mostly individual commenters and drivers, expressed brief, general support for extending the radius for the short-haul exception to 150 air-miles. Many individuals and drivers said that the additional flexibility was helpful or would positively impact them, their industry, or their company. Some commenters provided the following arguments for expanding the short-haul exception to 150 air-miles:

- The proposed change would allow carriers to classify drivers as short-haul more accurately;
- Extending the air-mile radius would reduce the burden of switching to logbooks and installing e-logs;
- Increasing the 100 air-mile to a 150 air-mile radius would increase new business opportunities;
- It is difficult to run a delivery business legally with the 100 air-mile restriction;
- The exception would reduce compliance burdens; and,
- Extending the air-mile radius would not increase safety risks.

Multiple industry associations and motor carriers stated that extending the 100 air-mile radius for the short-haul exception to 150 air-miles would increase flexibility and positively impact carriers, their members, or their segment, including crop dusting, commercial trucking, and motor coach businesses, retailers, beverage manufacturers and distributors, construction, manufacturing, and propane gas delivery. The U.S. Chamber of Commerce commented that extending the radius to 150 air-miles would provide flexibility for carriers to use the short-haul provision for runs that are farther from their work reporting location and may be currently managed as a long-haul run.

Many commenters said that the proposed extension would remove the need for several HOS exceptions that have already been issued and make standards more consistent for all drivers. Several commenters, including CVSA, and some motor carriers and drivers, stated that expanding the radius from 100 to 150 air-miles would align the short-haul exception with existing HOS requirements and thereby simplify enforcement and improve compliance. The U.S. Chamber of Commerce remarked that, for companies that manage a variety of trucking operations, the proposed change would facilitate compliance because more operations would follow the same set of rules, in turn making fleet management simpler and reducing the likelihood of inadvertent violations of the rules.

As stated above, many commenters said that the proposed changes would allow many more drivers to qualify for or utilize the short-haul exception.

Many commenters argued that a 150 air-mile radius did not go far enough, suggesting that it be increased to 200, 250, or 300 air-miles. A commenter asked what difference it makes how far drivers travel provided they return to their home terminal within the allotted time, noting that a short-haul driver can legally drive almost as many miles inside a 150 air-mile radius as a long-haul driver. Other individual commenters recommended removing the mileage radius as long as drivers return home at the end of a day.

FMCSA Response: The Agency agrees with commenters who stated that the proposed changes to the short-haul exception would provide increased flexibility to motor carriers and drivers without decreasing overall safety, irrespective of whether the 12-hour limit was increased. FMCSA also agrees with CVSA and other commenters that expanding the short-haul radius from 100 to 150 air-miles would align it with existing HOS requirements in § 395.1(e)(2) and § 395.1(k) and thereby simplify enforcement and improve compliance.

FMCSA believes that a 150 air-mile radius is the appropriate size for the short-haul exception applicable to CDL holders operating in interstate commerce. However, FMCSA disagrees

with commenters requesting that the mileage should be longer or even removed altogether, and with commenters seeking removal of the requirement for drivers to return to their normal work reporting location.

Short-haul drivers with occasional assignments that necessitate traveling long distances (*i.e.,* more than 300 air miles round trip) have always been allowed to take on such assignments provided they prepare RODS for those days. And under existing regulations and the rules adopted today they may continue to conduct these operations up to 8 days within a 30 consecutive day period without incurring the costs of installing and using ELDs. The Agency believes the flexibility provided in this final rule should be sufficient and that the increased distance suggested by some commenters is far beyond what should be considered short-haul operations.

Commenters Opposed to Extending the Distance to 150 Air-miles. A number of comments were opposed to the proposal to extend the allowable short-haul air-mile radius to 150 air miles, arguing that:

- Extending the air-mile radius to 150 air-miles would reduce safety;
- Short-haul is an often-abused rule and increasing the air-mile radius to 150 air-miles is a mistake; and,
- The extension to 150 air miles will drastically reduce the number of carriers and drivers required to use ELDs, which dilutes the intent of part 395, subpart B.

Advocates argued that the proposed changes would extend drivers' duty days, extend driving hours later into the duty period, increase the number of carriers operating under the exception—thereby increasing the number of drivers not provided adequate rest breaks, and impair enforcement.

Advocates also argued that FMCSA failed to provide evidence or analysis to support its conclusion that VMT and crash risk would not increase because of the extension of the air-mile radius to 150 air miles. A few commenters, including Advocates, IIHS, and Senator Murray, cited IIHS's 2017 crash risk study indicating that the short-haul exception was associated with a statistically significant 383 percent increase in crash risk. Senator Murray and an industry association warned that a 50 air-mile radius increase would not increase the driving area in a linear manner, but instead expand the total area that drivers may operate by more than double to over 31,000 square miles.[12] Citing many studies and statistics, IBT stated that short-haul drivers would experience increased fatigue and more fatigue-related occupational injuries and crashes.

Transportation Trades Department, AFL–CIO opposed the proposal to increase the air-mile radius because it would not provide enough time for adequate sleep and would encourage more driving time, increase driver fatigue, and decrease safety. Congressman DeFazio warned that the proposed rule significantly increases driving and on-duty time.

Several commenters took issue with the Agency's use of crash data on ready-mixed concrete trucks to argue that a 14-hour short-haul work shift would not decrease safety. Commenters also relied heavily on an IIHS study which concluded that carriers using the previous short-haul exception were significantly more likely to be involved in crashes than carriers not using the exception. These comments are discussed more fully in the RIA.

The IBT emphasized that a 14-hour short-haul work shift would increase the number of hours that drivers spend behind the wheel, the number of times they get in and out of the cab and trailer, and the amount of freight they manually handle. ''Therefore, it is reasonable to expect that the incidence and prevalence of occupational injuries and illnesses for these drives will also increase. In addition, motor carriers will likely experience higher worker compensation costs and costs associated with increased crash liability.''

FMCSA Response: The Agency concludes that extending the air-mile radius will not reduce safety. The motor carriers and drivers that would take advantage of this increased flexibility continue to be limited to 11 hours of driving time during the work shift and, like other drivers subject to the HOS requirements, continue to be prohibited from driving after 14 hours from the beginning of the work shift. These two factors are most critical for ensuring safe operations among short-haul operators.

With respect to not providing enough time for adequate sleep, the Agency reiterates that drivers must still comply with the requirement for 10 consecutive hours off duty at the end of the work shift. There is no research or data provided to suggest than an increase in the air-mile radius would result in increased crash risk, specifically when drivers are still restricted in the amount of time they can spend on-duty and driving.

Furthermore, drivers must still return to their normal work reporting location at the end of each work shift, which negates the notion that drivers would be able to cover a significant portion of the operational area (approximately 70,650 square miles) during a given work shift. The study cited by Advocates, IIHS, and Senator Murray (Teoh, 2017) was based on a small sample size which was not nationally representative and the analysts did not estimate a matched-pair odds ratio restricted to drivers operating under a short-haul exception. No data was provided to suggest that driving distance was directly related to injuries received by short-haul drivers; rather, several citations provided state that most injuries suffered by short-haul drivers are experienced during non-driving tasks, such as loading and unloading.

The continued absence of an ELD requirement for short-haul operations after expansion of the operating radius will not compromise safety. These short-haul operations are essentially self-limiting because of the nature of the operations and requirement to return to the reporting location. The frequent delivery stops generally made by short-haul drivers mean they rarely approach the 11-hour driving limit. Expanding the workday from 12 to 14 hours may result in more deliveries than were possible within a 100 air-mile radius, but total driving time will usually continue to fall short of the 11-hour limit. Conversely, carriers that choose to serve new customers near the outer limit of the expanded 150 air-mile radius will draw down more of the 11-hour driving limit and therefore be unable to make as many deliveries as they could have made within the previous 100 air-mile radius. Carriers may opt for either of these alternatives, or settle on an operational compromise that allows them to serve somewhat more customers, somewhat farther away. In any case, the nature of short-haul operations, with frequent delivery stops, means that an increase in violations of the 11-hour driving limit is highly unlikely.

Since the publication of the December 27, 2011 final rule concerning hours of service (76 FR 81134), non-CDL drivers have been allowed to use, and presumably have used, the 14-hour driving window in short-haul operations, within 150 air miles of the normal work reporting location. They also operate within a 16-hour window up to 2 days per week, within 150 air miles of the normal work reporting location. In other words, any carrier that found it operationally and financially advantageous to utilize a 14-hour

[12] ''Crash Risk Factors for Interstate Large Trucks in North Carolina.'' Insurance Institute for Highway Safety, Teoh, Eric, 2017. *https://www.ncbi.nlm.nih.gov/pubmed/28882260,* last accessed February 6, 2020.

driving window has probably been doing so, at least with its non-CDL holders. Some of these carriers may choose to utilize the revised short-haul exception for CDL holders who exceed the current short-haul time and distance restrictions more than 8 times in a 30-day period to spare themselves monthly ELD charges. However, it is possible that many will retain ELDs which enable them to operate beyond the 150 air-mile radius when longer-haul opportunities arise. These carriers should experience no changes in the rate of workplace injuries because the rule will not require operational changes.

As indicated above, the expanded 150 air-mile radius may induce some carriers to make longer runs with fewer deliveries than before, which may minimize, or even eliminate, an increase in the number of stops, where IBT claims workplace injuries typically occur. In any case, IBT has not reported, nor is FMCSA aware of, any study that purports to establish a dose-response curve showing workplace injuries as a function of each hour worked.

FMCSA reviewed the comments received and the previous short-haul exception requests to determine how the rule would affect the number of drivers operating under the short-haul exception. As discussed in the RIA for this final rule, FMCSA is not estimating a significant change in the number of drivers or motor carriers operating under the short-haul exception given that the revision would only benefit CDL holders who travel between 100 and 150 air miles of the normal work reporting location, and return to that location between 12 and 14 hours from the beginning of the work shift.

While some drivers' routine schedules that were considered non-short haul may now be eligible for the short-haul exception, it is unclear if motor carriers employing those drivers will choose to remove ELDs from their vehicles. Nevertheless, the Agency continues to believe ELDs are not a cost-effective solution to ensuring HOS compliance for these drivers, as stated earlier.

Ensuring Compliance with the Short-Haul Exception. The NPRM asked how the proposed changes to the short-haul exception would impact a motor carrier's ability to ensure its drivers comply with the HOS rules, and if enforcement difficulties would arise from expanding both the time and distance requirements.

A few commenters, including ABA and motor carriers, remarked that the proposed changes to the short-haul exception would not negatively impact a motor carrier's ability to comply with the HOS rules, and instead would simplify enforcement since the revised short-haul exception would more closely align with other sections of the other HOS provisions, thus increasing compliance and enforcement.

Some commenters, including Road Safe America, the Trucking Alliance, motor carriers, and drivers warned, however, that the proposed change would increase the likelihood that motor carriers would not comply with HOS rules because neither RODS nor ELDs would any longer be required. TruckerNation suggested that FMCSA consider a standardized way for a driver or motor carrier to make the distinction that they operate under the short-haul exception to ensure compliance with the exception. ATA stated that, while they understand that an ELD requirement is impractical for some drivers who are engaged in local, daily activities, motor carriers should be required to have some form of an electronic device that tracks on-duty and driving times.

The Customized Logistics and Delivery Association stated that timecards and run distances are recorded by all operational systems of a carrier ensuring compliance and enforcement.

A few commenters stated that the proposed changes to short-haul operations would not create any new enforcement difficulties. Some carriers said that no enforcement difficulties would arise because all their trucks have ELDs and all route locations and durations would be monitored. Motor Transport Association of Connecticut said that the short-haul exception would make enforcement easier for law enforcement officials because it would be uniform for CDL and non-CDL drivers.

Road Safe America, ATA, Advocates, and several motor carriers warned, however, that enforcement would be harder because there would be no legitimate way of tracking hours driven or worked without requiring RODS or ELDs. Road Safe America reasoned that enforcement difficulties would increase because the additional 50 air-miles could expand driving ranges into multiple States, which would require coordination between officers of different jurisdictions to determine if a driver is legally employing the short-haul exception.

ATA suggested that FMCSA examine additional ways to track and enforce short-haul drivers' on-duty and driving times during the duty day. TruckerNation suggested that FMCSA establish an ''operating policy'' for officers to determine the allowable radius to ensure consistent enforcement actions.

FMCSA Response: The Agency agrees with the commenters who remarked that the proposed changes to the short-haul regulations will simplify motor carriers' ability to comply with and enforce the HOS rules. The extension of the 100 air-miles radius to 150 air-miles makes the distance radius consistent with the distance limitation for short-haul CMV drivers of property-carriers who are not required to possess a CDL, which will simplify enforcing requirements of the short-haul exceptions for motor carriers that use both CDL and non-CDL drivers. Likewise, extending the short-haul duty period to 14 hours makes the duty period consistent with the rule for drivers of property-carriers who do not operate under the short-haul provision. For carriers that have both short-haul and long-haul property operations, this will simplify their enforcement of the 14-hour duty period.

FMCSA does not agree that these changes to the short-haul exception will increase the likelihood that motor carriers will not comply with HOS rules. Motor carriers must still ensure that short-haul drivers using the exception do not drive more than 11 hours for property carriers or 10 hours for passenger carriers and that they return to the same location they left from at the beginning of their work shift. Expanding the duty period to 14 hours without increasing the existing 11 hours of drive time will allow short-haul truck drivers more flexibility to spend time with customers, respond to changes in market demand such as peak holiday delivery times, and reduce the administrative burden of determining how often a driver has gone beyond 12 hours or 100 air-miles in any 30-consecutive day period. This change would also somewhat align with the 14-hour rule for drivers of property-carrying vehicles who do not operate under the short-haul provision.

FMCSA does not agree that motor carriers using the short-haul provision should be required to use ELDs. Because drivers would be returning to their original duty reporting location at the end of their shift, FMCSA will continue to allow motor carriers with short-haul operations the option to use duty reporting location time records rather than a record of duty status or ELD. Although motor carriers that conduct short-haul operations may use electronic tracking for payroll or other purposes, there is no requirement that the time records be electronic. In addition, motor carriers are not required to use the short-haul provision and can require their short-haul drivers to use an

ELD or other type of electronic device if they choose.

In addition to simplifying the motor carrier's ability to comply with and enforce HOS for their drivers, the Agency agrees with the commenters who stated that the changes to the short-haul operations provision would also simplify enforcement since the air-mile radius distance will be consistent for both CDL and non-CDL drivers.

As for comments that enforcement would be harder without required RODS or ELDs and that the 150 air-mile radius could expand driving into multiple States, changes do not increase the difficulty of enforcement of the FMCSRs. Enforcement personnel will be required to use the same investigative techniques as they currently do to verify radius of travel, driving time, and start time for the work shift. Generally, enforcement personnel use an online air-mile radius calculator to determine compliance with radius requirements and would not require assistance from officers of different jurisdictions when the radius extends into adjacent States. FMCSA will continue to work with the Commercial Vehicle Safety Alliance's (CVSA) committees assuring uniform training development and delivery, and enforcement tolerances. This on-going partnership will ensure smooth implementation of the modified short-haul provision. Many State officials already have experience dealing with non-CDL short-haul drivers who are currently provided a 14-hour driving window and 150 air miles within which to operate and this first-hand knowledge will be helpful in developing the training materials.

More Behind-the-Wheel Time During the Driving Window. The NPRM asked if drivers would drive farther or longer in the driving window (*i.e.,* spend more of the work shift behind the wheel) if the short-haul exception was revised. FMCSA also asked whether the time behind the wheel for these operations would differ from that of drivers complying with the ELD requirements.

Many commenters, including motor carriers and drivers, argued that drivers would not drive farther or longer for various reasons, including that drivers would be required to return to their original locations, that the 11-hour maximum driving rule would still apply, and that the current miles and radius are sufficient.

Citing studies, the U.S. Chamber of Commerce stated that, while shifts in driver schedules would occur, overall increase in driver schedule intensity would not. The commenter reasoned that, because most drivers never approach the maximum daily or weekly allowable driving limits, only the administration of driving shifts would change.

OOIDA and a few motor carriers argued that a short-haul driver may drive farther with the expanded air-mile radius, especially in more rural areas, but noted that the proposal still maintains the current 11-hour driving limit.

Some commenters said the exception has the potential to increase driving hours and miles. Road Safe America and IBT argued that short-haul drivers would now drive longer, especially since RODS would not be required and law enforcement would not be able to ensure that a driver did not drive for the entire 14-hour duty period. IBT added that surveys show that drivers are already being required to perform or will likely be assigned work that would increase miles traveled or entail more non-driving tasks that extend the workday to 14 hours, all of which will increase their fatigue and decrease safety. A few commenters stated that interstate and intrastate operations would likely use the additional 50 air-miles and additional time to service customers who would otherwise receive service through a separate operational schedule.

Commenters, including OOIDA and other industry associations, asserted that short-haul drivers would not drive any further or longer than those complying with ELD requirements. Some industry associations argued that many carriers would use ELDs regardless of whether they could operate under the short-haul exception.

The ABA remarked that ELD providers could serve as an invaluable resource to FMCSA for purposes of providing data on use of the short-haul exception (*i.e.,* frequency of use and distances traveled).

FMCSA Response: The Agency agrees that drivers will generally not spend significantly more time behind the wheel on a daily basis than they currently do, especially because they are limited to 11 hours of driving time. With respect to the notion that drivers will drive farther by falsifying time records due to the lack of an ELD, the Agency notes that the exception allowing short-haul drivers to use time cards as opposed to RODS has long existed in the HOS rules. Nothing in the changes to the short-haul exception creates additional opportunities for short-haul drivers to falsify time records. The normal work-reporting location requirement remains applicable to short-haul drivers.

As to ABA's comment regarding ELD data as a valuable resource, it must be noted that 49 U.S.C. 31137(e)(1) prohibits the Secretary from using data from ELDs except ''to enforce the Secretary's motor carrier safety and related regulations.'' Therefore, the ELD data cannot be used, outside the context of enforcing part 395, to analyze either the frequency of use of the short-haul exception or the distances traveled by drivers operating under the short-haul exception. Furthermore, given that carriers using ELDs for short-haul operations do so on a voluntary basis, such data would not be representative of the wide variety of short-haul operations.

Cost Savings from Not Using ELDs. FMCSA asked for comments on the cost savings that would be expected from not having to comply with the ELD requirements for operations out to a radius of 150 air-miles. Commenters noted that cost savings could range from $240 to $1,700 per truck, including the costs for purchase of the device, data maintenance, and technical support. Comments from industry associations stated that the cost savings would be at least $500 to $1,000 per truck, including costs for equipment, maintenance, repair, and back office administration. ABA stated that, due to the diverse nature of the motor coach industry, some segments of the driver population would continue to use ELDs. Road Safe America warned that the cost savings associated with the avoidance of ELDs would be negligible compared to the far greater costs of significantly increased risk of fatigue-related crashes associated with extending the short-haul exceptions. ATA suggested that FMCSA assess the motor carrier populations affected by the changes to the short-haul exception to better estimate the industrywide cost savings of the proposed rule.

FMCSA Response: FMCSA acknowledges commenters' views. FMCSA previously estimated a per-truck cost of $419 per ELD, and notes that this is within the range provided by commenters.[13] It is, however, unclear how many motor carriers and drivers will no longer be required to use ELDs. For instance, although some bus routes will no longer need ELDs, the motor carrier may choose to retain the device to use the bus on longer-haul routes, should the occasion arise. Further, some motor carriers use and will retain ELDs for business reasons, even if not required by regulation. Under the changes made to the short-haul exception today, these motor carriers will not necessarily see a reduction in the number of ELDs. FMCSA is not

[13] 80 FR 78292, December 16, 2015.

quantifying a cost savings in this rule due to the uncertainty surrounding the number of vehicles that will no longer use ELDs.

FMCSA reviewed the comments and tried to estimate the number of drivers who would be covered by the short-haul exception. This is discussed in detail in section 2.4 (Baseline for Analysis) of the RIA for the final rule. Inadequate data prevented FMCSA from estimating the number of additional drivers who will likely operate under the revised short-haul exception. The Agency has determined that the carrier-reported information on drivers operating within 100 air miles of their work reporting location is a good proxy for the count of drivers who are eligible for, and will operate under, the short-haul exception following the implementation of this final rule.

Return to the Normal Work Reporting Location. Some commenters to the ANPRM requested that drivers using the short-haul exception be allowed to end their work shift at a different location than the one from which they were dispatched. FMCSA requested public comment on this issue, including which segments of the motor carrier industry would be impacted by such a change and whether the change would have an adverse effect on safety, or lead to operational changes such as increased driving time per trip or driving in the 12th and 13th hour after coming on-duty.

Many commenters, including the U.S. Chamber of Commerce, Advocates, motor carriers, and drivers, argued that short-haul drivers should not be allowed to end the work shift at a different location. Road Safe America, CVSA, the Trucking Solutions Group, and Sysco Corporation said that removing this requirement would contravene the original intent of the short-haul exception. Trucking Solutions Group added that such a change would give short-haul companies a competitive advantage over companies that is ineligible to operate under the exception. ATA warned that the provision to return to the same location ensures compliance with the short-haul requirements; otherwise, enforcement would have no way to ensure drivers adhere to the air-mile radius and on-duty limits. The Trucking Alliance, Road Safe America, and CVSA said that short-haul drivers should be required to return to their work reporting location, because otherwise drivers would be able to ''leapfrog'' from one location to another across the country, extending the effective air-mile radius beyond 150 air miles. Advocates argued that allowing carriers to return to a different location would effectively turn them into traditional long-haul operations minus the required rest break and ELDs.

Many commenters, however, including TruckerNation, OOIDA, ABA, and industry associations, supported allowing drivers to end the shift at a different location, citing various benefits, including minimizing driving time and distance traveled, reducing wear on the fleet, aligning with the diverse nature of the trucking industry, maximizing the allowable on-duty period, leading to more productive and flexible schedules, and not negatively impacting safety. Many industry associations stated that returning to the same location does not necessarily promote safer driving habits and that modern technology allows businesses to monitor the start and stop locations of their drivers via tracking apps and electronic communications.

The Minnesota Trucking Association remarked that its members were split on this question, with some supporting allowing drivers to end at a different location.

FMCSA Response: The Agency has opted not to change the requirement that short-haul drivers return to their work reporting location at the end of their shift. The current requirement is consistent with operations that are generally considered short-haul. As commenters noted, the current requirement assists enforcement personnel in determining the applicability of the short-haul exception and prevents abuse. If the requirement were changed, enforcement personnel would not have a beginning reference point from which to calculate the 150 air-mile radius. The provision would be difficult to enforce and could lead to abuse as drivers could potentially ''leap-frog'' across the country without any way to verify their hours of service.

The 30-Minute Break in Relation to the Short-Haul Provision. The NPRM asked if eliminating the 30-minute break requirement for drivers who are potentially driving later in their duty period would impact safety.

A few commenters, including industry associations, said that the elimination of the 30-minute break requirement would not negatively impact safety for various reasons, including that short-haul drivers often make frequent stops throughout the on-duty period, are less likely to be affected by driving-related fatigue, and will have the flexibility to stop as needed to rest under the additional time provided in this rule. The Trucking Alliance said the 30-minute break is not necessary because short-haul drivers would be performing many non-driving activities each day. Citing research studies, the Petroleum Marketers Association of America argued that, while the studies did not specifically address the 30-minute break, they indicate short-haul drivers are less likely to experience reduced safety performance due to the nature of the job. TruckerNation stated that the proposed changes to the 30-minute break would mean ''short-haul operators will not reach the 8th consecutive hour of drive time without the opportunity to have an on-duty, not driving change in duty status'' and would eliminate regulatory complexity by making the short-haul exceptions the same as HOS regulations for all drivers.

IBT, citing research and studies, said that eliminating the 30-minute break requirement for short-haul drivers would have an adverse impact on safety as data demonstrates that crash risk significantly increases after the 7th consecutive hour of a driver's workday.[14] Another commenter, a driver, warned that the elimination of the 30-minute break for drivers who are potentially driving later in their duty period would impact safety because drivers would not obtain adequate rest and their performance could suffer. Advocates asserted that by asking this question, FMCSA is ''admitting'' that the proposed changes would result in drivers being scheduled to drive later in their duty period.

FMCSA Response: FMCSA concludes that the expansion of the criteria for short-haul operations and the associated elimination of the 30-minute break requirement for these drivers will not have an adverse impact on safety. As noted above, the primary factors influencing safety outcomes for short-haul drivers are the continued adherence to the 11-hour driving time limit and the continued prohibition against driving after the 14th hour of the beginning of the work shift. FMCSA acknowledges that in the 2011 final rule and during the subsequent litigation, the

[14] IBT cited: 65 FR 25539 (Apr. 2000); Saccomano, F., et al., ''Effect of Driver Fatigue On Truck Accident Rates,'' Urban Transport and the Environment for the Twenty-First Century (ed. L.J. Sucharov), Computational Mechanics Publications, Southampton, U.K., 439–446 (1995); Saccomano, F. and Shortread, J., ''Truck Safety: Perceptions and Reality,'' the Institute for Risk Reduction, Ontario, Canada, 157–174 (1996).; Lin, T. et al., ''Time of Day Models of Motor Carrier Accident Risk,'' Transportation Research Record 1467: 1–8, Transportation Research Board, National Research Council, (1994); Frith, W., ''A Case-Control Study of Heavy Vehicle Drivers' Working Time and Safety,'' Proceedings of the Australian Road Research Board Conference, 17(5): 17–30 (1994) and Jovanis, J.P., Wu, K.F., and Chen, C., ''Hours of Service and Driver Fatigue—Driver Characteristics Research,'' FMCSA (April 2011), DOT docket number FMCSA–2004–19608–27614.

Agency argued that, on their face, the safety benefits of an off-duty 30-minute break requirement applied to short-haul operations as well as long-haul. The D.C. Circuit Court of Appeals, however, found that applying the 30-minute break requirement to all drivers despite the clear distinctions between short-haul and long-haul operations was not justified in the record.[15] The Agency has received no new evidence to compel a different finding.

Moreover, there is no safety basis for expanding the definition of short-haul but continuing to require a 30-minute break for the subset of short-haul CDL drivers who operate between 100 and 150 air miles, or who drive between the 12th and 14th hour of coming on duty. To the extent that the debate and comments about the safety impact of relieving this group of drivers of the need to comply with the 30-minute break provision lingers, FMCSA believes it is best resolved below in the Agency's decision concerning changes to the 30-minute break.

The changes adopted in this final rule result in the break being required after 8 consecutive hours of driving time, rather than 8 hours after coming on-duty. That change alone would make the 30-minute break inapplicable in nearly all short-haul operations in that they would not drive 8 consecutive hours without having a break of at least 30 minutes from the driving task.

FMCSA reviewed the Blanco study and notes that it found that any type of break (both off-duty, and on-duty not driving) was beneficial to the driver.[16] Furthermore, it has been demonstrated in multiple research efforts that time on task is a leading contributor to driver fatigue. The requirement for a break after 8 hours of consecutive driving time addresses this concern more adequately than requiring a break after 8 hours of coming on-duty, and short-haul drivers have frequent breaks from driving throughout the day. Therefore, FMCSA disagrees with the commenters who stated that allowing short-haul to be excepted from the requirement would have an adverse impact on safety and continues to except short-haul drivers from the 30-minute break requirement despite the extension of the duty day to 14 hours.

Comments about the Relationship Between Changes to the Short-Haul Exception, Adverse Driving Conditions Exception and ELD Mandate. CVSA and Schneider National Carriers, Inc. stated that short-haul carriers using the proposed exception without using an ELD should not be eligible for workday extensions, like that granted for adverse driving conditions. The commenters reasoned that short-haul drivers would be familiar with the routes and weather in their operating territory and would be able to abuse the program if allowed to claim an extra 2 hours of driving time. A few commenters, including the Trucking Alliance, U.S. Chamber of Commerce, industry associations, and motor carriers, stated FMCSA should require ELDs regardless of the distance traveled.

TruckerNation suggested that FMCSA include clear regulatory language explaining that short-haul operators are exempt from the ELD mandate and are only required to prepare and maintain time cards. The Trucking Alliance suggested harmonization between the interstate CDL short-haul operations exception and the interstate non-CDL short-haul operations. An industry association developed a ''Daily Driver'' concept as an alternative to the short-haul exception and suggested specific language.

FMCSA Response: FMCSA believes that the revised short-haul exception adopted today maintains safety while providing motor carriers and drivers greater flexibility. The Agency is not persuaded that various alternatives suggested by commenters would achieve that goal. Requiring ELDs for any subgroup of the short-haul carriers would essentially negate the short-haul exception because the daily preparation of RODS would make the regulatory scheme for short-haul operations largely the same as other operations. The extension of the workday from 12 to 14 hours for returning to the original work reporting location without increasing the existing 11 hours of driving time will put short-haul operations on essentially the same footing as long-haul operations with the distinction being that they must return to the normal work reporting location. Increasing the 100 air-mile radius distance to 150 air-miles will allow short-haul drivers greater flexibility. Together, these provisions will reduce potential pressure on drivers for timely completion of their duty day.

Drivers who normally operate under the short-haul exception but occasionally find it necessary to exceed those limits can already drive within a 14-hour window for up to 8 days in any 30-consecutive day period without ELDs, provided they utilize paper RODS, or for more than 8 days in any 30-day consecutive period with an ELD. Whether to remain within or exceed the short-haul limits is strictly a business decision on the part of the carrier, and the Agency has not identified safety issues associated with the use of either of these options.

The NPRM did not propose to harmonize the short-haul rules for CDL and non-CDL drivers (§ 395.1(e)(1) and (2), respectively) concerning the allowance of a 16-hour window up to 2 days in a 7 consecutive day period for non-CDL holders. The Agency has not witnessed a demand for that level of flexibility since implementing the ELD mandate either in the form of requests for guidance or clarifications, or applications for exemptions. Therefore, the Agency did not propose such a change in the NPRM and considers the matter to be beyond the scope of this rulemaking.

Commenters Suggesting Industry-Specific Exceptions. A few trade groups requested that FMCSA allow industry-specific exceptions for certain short-haul operations, including for hazardous materials, concrete pumps, construction vehicles, and waste and recycling. The National Lumber and Building Material Dealers Association urged FMCSA to provide the lumber and building material industry a short-term ELD exception stating that many of their members use short-term rentals of 30 days or less to meet high demand periods or instances where vehicles have been taken out of operation for repairs or service. The American Farm Bureau Federation suggested allowing drivers hauling live animals and agriculture to rest ''at any point during their trip without counting this rest time against their HOS allotments and allowing drivers to complete their trip, regardless of HOS requirements, if they come within 150 air-miles of their delivery point.''

The National Private Truck Council, Inc. suggested requiring drivers to document their adherence to the 150 air-mile radius and 14-hour time requirements through GPS telematics, paper log, timecard notation, or some equivalent means. The American Fuel and Petrochemical Manufacturers asked for additional information from FMCSA on the potential impacts of the proposed short-haul exception on recordkeeping requirements, including the current 8-in-30 exception.

FMCSA Response: The motor carrier industry is diverse. As noted above the Agency has granted multiple exemptions for certain industry segments and there are various statutory and regulatory exceptions for several industry segments. Many of the

[15] *American Trucking Ass'n* v. *FMCSA,* 724 F.3d 243, 253 (D.C. Cir. 2013).

[16] ''The Impact of Driving, Non-Driving Work, and Rest Breaks on Driving Performance in Commercial Motor Vehicle Operations.'' Blanco, et al. (2011). Available in the docket for this rulemaking.

commenters cited the exemptions and exceptions. While the exemptions granted were for certain industry segments, the exemptions generally fall within the 150 air-mile distance and/or 14-hour time constraint, such that this final rule addresses the issue in general terms rather than specific industry segments. Also, given that the Agency did not propose specific industry carve-outs in the NPRM, considering such regulatory exemptions is outside of the scope of this rulemaking.

The requirements for applying for an exemption are provided in 49 CFR part 381 subpart C of the FMCSRs. After receiving an application for exception from the FMCSRs, the Agency will publish a notice in the **Federal Register** as required by § 381.315 and request public comment on whether the Agency should grant the request. FMCSA cannot grant an exemption unless it would likely achieve a level of safety equivalent to that achieved by complying with the rule from which an exception is sought.

In recent years, the Agency has received numerous requests for exemptions related to the short-haul provisions; several of these requests for exemptions have been granted (available at *www.fmcsa.dot.gov/exemptions*), while others have been denied.

FMCSA did not propose or consider new alternative means for motor carriers to document short-haul drivers' hours under the revised short-haul exception, and is not adding any new recordkeeping requirements at this time. Furthermore, the changes to the short-haul provisions in this final rule in no way relieve carriers and drivers of the responsibility for complying with the current recordkeeping requirements found in § 395.1(e)(1)(v), which are consistent with 6-month recordkeeping requirements for other records. See, *e.g.,* § 395.8(k)(1) (requiring retention of RODS and supporting documents for 6 months); § 395.22(i) (requiring motor carriers to retain for 6 months a backup copy of ELD records).

4. Adverse Driving Conditions

NPRM. The Agency proposed allowing drivers encountering adverse driving conditions a driving window of up to 16 hours (for property carriers) within which to complete up to 13 hours of driving, or a duty period of up to 17 hours (for passenger carriers) within which to complete up to 12 hours of driving.

FMCSA also sought additional information and data on the impacts of changing the adverse driving conditions provision, in part to assess its potential costs and benefits. Specifically:

- Would this change cause drivers to travel farther in adverse driving conditions?
- Would this change drivers' behavior when encountering adverse driving conditions? How so?
- Understanding adverse driving conditions cannot be predicted, would drivers utilize this provision more often after this change?

Additionally, FMCSA requested public comment about potential modifications to the definition of ''adverse driving conditions.'' Specifically, the Agency requested input on the suggestion that knowledge of the existence of adverse driving conditions should rest with the driver rather than the dispatcher. Alternatively, FMCSA asked whether the requirement for lack of advance knowledge at the time of dispatch should be eliminated, and whether the current definition of ''adverse driving conditions'' should be modified to address other circumstances.

Commenters Supporting an Extended Driving Window. The changes proposed in the NPRM would apply to drivers of both property-carrying CMVs, normally subject to a 14-hour driving window, and passenger-carrying CMVs, normally subject to a driving window of 15 non-consecutive hours.

Numerous commenters, including OOIDA, CVSA, the U.S. Chamber of Commerce, ABA, IBT, motor carriers, industry associations, and individuals expressed support for the proposed adverse driving conditions provision. Many individuals and drivers stated that the extension would relieve the pressure, stress, and fatigue on drivers. Most commenters reasoned that granting drivers more flexibility would improve road safety.

Some commenters argued that road conditions are not always accurately reflected in weather radar maps or other technologies, so drivers should have the flexibility and discretion to determine when it is safe to drive. The California Highway Patrol said the provision would allow driving at a reduced speed or delay operations while in adverse driving conditions, which may reduce the risk of crashes and improve road safety. Keep Truckin, Inc. based its support on anonymized and aggregated data of daily traffic patterns and speed fluctuations in Washington, DC and Atlanta, Georgia. An industry association said extending the driving window for adverse driving conditions would greatly benefit the delivery of farm supplies.

While supporting the proposal, OOIDA, ABA, and the United Motorcoach Association expressed concern that the current adverse driving condition rules are not enforced consistently. The U.S. Chamber of Commerce and several industry associations said their members rarely use the exception, although the expansion would be helpful in extreme conditions.

FMCSA Response: FMCSA agrees that by adding time to the duty day for this exception, drivers may reduce their speed or delay operations when they experience unanticipated adverse driving conditions.

FMCSA agrees that radar and technology may not be entirely accurate and thus leaves the driver/dispatcher discretion in this final rule. FMCSA is not aware of any issues with enforcement of or compliance with the adverse driving conditions exception.

Commenters Requesting Additional Flexibility for Adverse Driving Conditions. Many commenters stated that the proposal did not go far enough. Among their comments:

- The provision should include unforeseen traffic conditions, such as emergency road repairs, congestion, and traffic accidents to allow drivers to compensate for ever worsening traffic congestion and infrastructure problems.
- Drivers should be allowed to decide how to respond to road conditions.
- The proposed changes to the extended driving window were not sufficient.

A few industry associations, motor carriers, and individual commenters argued that drivers should have more discretion over the hours in which they drive in potentially adverse driving conditions and that this provision did not grant enough flexibility to drivers.

TruckerNation stated that increased clarity and supporting guidance is needed, asking how a driver would be required to document the use of this provision on RODS to enable its increased and proper use. Many industry associations and individuals also commented that the current definition of ''adverse driving conditions'' should be clarified. Several commenters asked that the definition be expanded to address detention time or concerns specific to various sectors of the industry.

FMCSA Response: This final rule modifies the adverse driving condition exception to allow extension of the driving window by up to 2 hours, consistent with the 2-hour extension of driving time permitted under the current regulations. Though some commenters argued for an expansion of the current definition of ''adverse driving conditions'' to include circumstances such as unforeseen

traffic-related conditions, a close look at the definition shows that these road conditions are already covered. The HOS rules currently define ''adverse driving conditions'' as ''snow, sleet, fog, other adverse weather conditions, a highway covered with snow or ice, or unusual road and traffic conditions, none of which were apparent based on information known to the person dispatching the run at the time it was begun.'' The definition specifically refers to ''unusual road and traffic conditions'' which would cover most of the concerns mentioned by commenters. FMCSA does not believe it is necessary to further expound on the traffic conditions, as they are generally covered. However, the definition is modified for clarity and to recognize that the adverse driving conditions exception might apply based on knowledge of a driver (in addition to the dispatcher) under certain circumstances.

Commenters Opposed to Additional Flexibility for Adverse Driving Conditions. Some commenters opposed the extension of the driving window. They said that:

- The extension would encourage drivers to continue driving when conditions are poor.
- Dispatchers and drivers would extend the day without any adverse driving conditions or otherwise abuse the provision to get around a violation.
- This provision would cause an enforcement problem.

Several commenters, including IIHS, AASM, Senator Murray, and Transportation Trades Department, AFL–CIO, argued that the proposal would worsen driver fatigue. Advocates warned that extending the driving window enables driving later in the duty period, which research has associated with increases in crash risk, stating that FMCSA provided no analysis of that risk. IIHS cited studies on the safety and health consequences for drivers of disrupted circadian rhythms. Congressman DeFazio warned that the proposed rule would significantly increase on-duty time.

The Trucking Alliance opposed this provision, saying that the definition of ''adverse driving conditions'' is unclear, allowing drivers to exploit the exception and use it to extend their driving window every day. Conversely, the Kentucky Driver's Association commented that, because the proposed rule could be abused to pressure drivers to drive beyond the normal 14-hour cap, it should be limited to ''verifiable'' events.

Advocates stated that FMCSA's comparisons of this proposal with duty period extensions permitted by the Federal Aviation Administration (FAA) and the Federal Railroad Administration (FRA) ignore the regulatory and operational differences among these Administrations and do not include any of the FAA's or FRA's limitations or additional requirements, nor has FMCSA performed any analysis to indicate that such comparisons are correct and meaningful.

FMCSA Response: FMCSA acknowledges that the proposal could allow drivers who experience adverse driving conditions to operate later into the duty day. The Agency also acknowledges that parallels with the airline and railroad industries are not exact. However, this change would create an incentive for drivers to drive more slowly or take a break from driving during adverse driving conditions, given that, as a result of this change, they will have up to 2 additional hours to either complete their run or to reach a safe location without exceeding the maximum daily driving windows. Additionally, FMCSA notes that surveys by two major trade associations demonstrate that the adverse-driving-conditions exception is not frequently used. Although changes intended to clarify the definition and improve flexibility may result in an increase in the use of the exception, there is little reason to expect that either the increase in use (or its potential abuse) will be significant.

FMCSA also disagrees that this change would increase enforcement problems. Drivers relying on the adverse driving conditions exception would routinely annotate their RODS to avoid an HOS violation; consistent with current practice, a law enforcement officer could investigate the merits of the claimed exception.

Commenters Discussing the Impact on VMT. Several commenters, including OOIDA and many other industry associations, argued that this provision would cause drivers to drive more safely, not greater distances, in adverse driving conditions. Currently drivers may drive up to 2 additional hours but they may be pressured to complete driving within the 14-hour window. The expansion of the driving window would enable them to drive more cautiously.

Conversely, AASM argued that the provision would cause drivers to drive longer distances. They argued that the assumption that drivers would reduce speed or delay operations during adverse driving conditions is not supported by scientific study. An individual argued that this provision will cause drivers to travel farther distances. ABA and an industry association said that predicting the effect of the provision on travel distance is impossible.

FMCSA Response: This rule would not allow an increase in driving time, but it would increase the driving window from 14 to 16 hours when an adverse driving condition is encountered. FMCSA asked whether the extension of the driving window in the event of adverse conditions will result in an increase VMT. No commenter provided responsive data, and none may exist. Ultimately, each adverse driving condition will create a unique set of unpredictable circumstances that drivers and motor carriers will react to—not plan for. Accordingly, motor carriers will not be able to plan for additional deliveries, trips, or VMT, and the final rule does not quantify the impact of these driving changes on VMT. The FMCSA believes that any increase in VMT will be negligible because the total amount of driving time remains unchanged by this rule.

Comments About the Impact of the Exception on Driver Behavior. The NPRM asked whether the proposed rule would change drivers' behavior upon encountering adverse driving conditions. Multiple commenters, including OOIDA, ABA, IBT, other industry associations, and motor carriers said the provision would improve safety by allowing drivers the flexibility to find a safe place to park and avoid adverse driving conditions. However, the NSC cited research and studies arguing that the longer an individual is awake, the higher the likelihood of safety-critical mistakes.

Advocates warned that abuse of the proposed exception would likely increase because carriers could coerce drivers to complete trips when conditions are adverse or because drivers could adjust their evaluation of the risk and continue to drive despite the opportunity to use the exception to stop. Either way, Advocates said FMCSA provided no analysis of these possibilities and their effect on safety.

Other commenters, including Western States Trucking Association and Sysco Corporation, said that the provision will not change driver behavior.

FMCSA Response: FMCSA agrees with commenters that it is hard to predict, on an aggregate level, what behaviors may change. However, trade association surveys suggest that this exception is not frequently used. FMCSA does not believe the level of use or abuse will change significantly because of this rulemaking.

Nevertheless, FMCSA agrees with commenters that the additional flexibility provided by the revised

exception will assist drivers in avoiding perilous conditions. FMCSA emphasizes that this change will not increase the driving time available during adverse driving conditions. By increasing duty time without increasing driving time, this change will provide the drivers with more non-driving options to safely respond to an adverse driving condition.

FMCSA does not believe that changes to the adverse driving conditions exception will mean that drivers are awake longer. The studies raised by commenters did not look at workdays with opportunities for rest or sleep in them. Additionally, as pointed out by OOIDA, ABA, IBT, other industry associations, and motor carriers, drivers may utilize the additional duty time provided by this change to take a break from driving that they may not have taken otherwise.

Comments About the Frequency of Adverse Conditions. The NPRM asked drivers whether they expected to use the proposed exception more often. Many commenters predicted that drivers would use the exception more often, especially if the definition were clarified.

The U.S. Chamber of Commerce, however, does not anticipate increased use because its motor carrier members do not regularly use it in the first place. Other commenters also stated that drivers will not use the provision more often. The National Association of Small Trucking Companies said that the only reason for a change in the frequency of use would be if a truck driver began working in a new region. A motor carrier argued that driver behavior, in terms of making the decision whether to use the exception or the frequency of use often to use the exception, will not change because the definition of ''adverse driving conditions'' remains unchanged.

FMCSA Response: FMCSA does not believe the changes adopted today are likely to increase significantly the use of the exception, but is unable to estimate changes in the frequency on an industry-wide level. The change provides drivers with a better opportunity to use the additional driving time already allowed under the current rule such that the adverse conditions that necessitate driving beyond the 14th-hour of the work shift may be addressed provided the driver can reach an appropriate stopping point without exceeding 13 hours of driving time.

Definition of Adverse Driving Conditions; Driver and Dispatcher Knowledge. The NPRM asked for public comment about potential modifications or additions to the definition of ''adverse driving conditions.'' Commenters asked for both a broader definition, as well as a more specific definition.

More Detailed Definition. OOIDA, TruckerNation, other industry associations, and motor carriers said the definition should be expanded to include all unpredictable conditions that a driver may face, such as traffic congestion, vehicle accidents, construction, or road closures. Multiple commenters and drivers said the proposal should specifically define adverse driving conditions to embrace non-weather conditions, including Federal and State safety inspections, unexpected loading or unloading issues at shippers and receivers, and truck breakdowns.

Schneider National Carrier, Inc. recommended that the adverse driving conditions exception be available to drivers only once per week. Schneider added that the exception should not be allowed to be combined with the use of the split sleeper berth option or the proposed split-duty provisions. The American Moving and Storage Association recommended also allowing carriers to use the adverse driving conditions exception for conditions known before dispatch.

TruckerNation suggested requiring an option on an ELD for a driver to upload evidence or a detailed annotation to establish and document adverse driving conditions.

Road Safe America, the Trucking Alliance, ATA, Advocates, a few industry associations and motor carriers said that the definition should be clarified, but not expanded. Advocates and Uline believe adverse driving conditions should be defined as accurately and narrowly as possible, and that the situations under which the exception may be used should be clarified to minimize abuse. ATA conducted a survey of its members, some of whom said that ''adverse'' should be narrowly defined to include only Federal or State declared emergencies, while others favored the inclusion of all unforeseen road conditions.

Broader Definition. OOIDA recommended replacing the term ''adverse'' with ''unforeseen'' to be more encompassing. The U.S. Chamber of Commerce proposed a definition in which ''adverse driving conditions'' would be any conditions which could not be predicted at the time of dispatch, thereby granting flexibility to both drivers and dispatchers. A few industry associations recommended that FMCSA expand the definition to include specific provisions for livestock haulers. CVSA recommended making the definition like the Canadian federal definition.

Under the current definition, adverse driving conditions must not have been known to the dispatcher when the run began. The Agency asked whether the driver's lack of knowledge should be used as a precondition for the exception. FMCSA also asked whether the requirement for lack of advance knowledge at the time of dispatch should be eliminated.

Multiple commenters, including OOIDA, ATA, and motor carriers, said the driver knows the status of road conditions better than a dispatcher could, so the driver should be responsible for making safety decisions. TruckerNation stated that advance knowledge should not be a requirement and that, as with all safety decisions, discretion should be left to the driver. ATA acknowledged that dispatchers may be aware of adverse driving conditions before drivers, so dispatchers should continue to notify drivers.

OOIDA and the Association of American Railroads and the American Short Line and Regional Railroad Association said the requirement for the lack of advance knowledge at the time of dispatch should be eliminated because it prevents drivers from using the provision if road conditions change after dispatch.

No Changes. Other commenters, including IBT, California Highway Patrol, and the Truckload Carriers Association, recommended that there be no changes to the current definition.

FMCSA Response: FMCSA declines to make the definition applicable to specific sectors of the industry or to cover situations not contemplated by the current definition. The Agency also declines to exclude situations currently covered. Many of the suggested expansions would be covered under a reasonable interpretation of the current definition; inconsistent interpretations might be addressed best by training and further outreach efforts. Although the Agency does not believe the current definition is vague, it nonetheless has revised the definition for enhanced clarity.

Agency guidance concerning the exception makes clear that it covers only situations that occur after a driver started her or his trip.[17] This final rule does not deviate from that principle. The exception does not cover detention time, breakdowns, or enforcement

[17] See Interpretations under the HOS rules, § 395.1, *https://www.fmcsa.dot.gov/regulations/title49/part/395.*

inspections—factors that are to be anticipated in the industry. Nor does it cover things such as road construction or detours except when they could not reasonably be known before the driver started driving, such as accidents that significantly interfere with traffic movement.

The exception is mainly meant to cover situations outside a driver or motor carrier's control, and the Agency does not expect it to be invoked frequently. Thus, the Agency declines to limit its use to a fixed frequency or in combination with unrelated provisions of the HOS regulations or to expand on the current industry practice of documenting use of the exception on a driver's RODS.

However, the Agency believes clarification is appropriate given the common availability and use of technology that can provide motor carriers and drivers notice of adverse weather (and sometimes road) conditions. The definition has been revised somewhat to recognize that drivers on the road can evaluate situations that could not be foreseen before dispatch or the start of a duty day (or after a sleeper berth period). As revised, the definition covers conditions that are unknown, or could not reasonably be known, to the driver immediately before the start of the duty day or before resuming driving after a sleeper berth break, or to the motor carrier immediately before dispatching the driver. FMCSA believes that this change to the definition will lessen the need for future regulatory guidance. Furthermore, this change will not increase available driving time beyond what is currently allowed by the exception.

5. 30-Minute Break

NPRM. FMCSA proposed to require a 30-minute break if more than 8 consecutive hours of driving (instead of 8 hours after coming on-duty) has passed without at least one 30-minute change in duty status. This would allow any 30 minutes of non-driving time to qualify as a break, *i.e.,* on-duty (not driving) time, off-duty time, or sleeper berth time. Many drivers have interruptions of their driving time during normal business operations, such as loading or unloading a truck, completing paperwork, or stopping for fuel.

Under the current rules, the break is: (1) Required to be off-duty time during which no work, including paperwork, may be performed, and (2) triggered after 8 hours on-duty time, regardless of the time spent driving. The flexibility provided by the NPRM would have allowed these normal breaks from driving to count as an interruption of the 8 hours of driving status (*i.e.,* ''time on task'' in the research literature), provided the break lasts at least 30 minutes. The proposed changes to the 30-minute break provision would not have allowed an increase in maximum driving time during the work shift or driving after the 14th hour from the beginning of the work shift.

The NPRM sought information and data on the impacts of changing the 30-minute break provision, in part to better assess its potential costs and benefits. Specifically, the Agency asked:

- Would you take fewer total breaks from driving with this change? How many and when would those breaks have occurred during your route?
- Do you expect to still take a 30-minute break if you have less than 8 hours of drive time? If so, would you take that break on-duty or off-duty?
- If you no longer need to take a 30-minute break, how would you expect to spend this additional time?
- How would this provision change your scheduling and planning?
- Do you expect to drive more miles or hours based on this change? Do you expect to be able to complete additional ''runs''?

Additionally, the Agency acknowledged that many commenters to the ANPRM specifically asked that the 30-minute break requirement be eliminated entirely and considered that as an alternative under E.O. 12866. However, the NPRM said that, without the benefit of further information, it would not be appropriate to eliminate the 30-minute break. Given that the flexibility allowed in the proposal would alleviate many of the concerns expressed by commenters, in the NPRM FMCSA sought further information on the effect of eliminating the break requirement altogether. Specifically:

(1) What would be the safety impact of eliminating the required break, potentially allowing up to 11 consecutive hours of driving?

(2) What has been the cost to your company of complying with the 30-minute break rule since the compliance date for that rule, July 1, 2013?

(3) How often do work shifts require an individual to drive more than 8 hours without at least a 30-minute change in duty status?

(4) Would eliminating the break requirement result in greater cost savings than the current proposal? If so, what would be the amount of these cost savings?

Commenters Supporting the Proposed Revision. Numerous commenters, including individual commenters, drivers, and some industry associations, supported the proposed changes for a variety of reasons, among them:

- Increased driver control and flexibility;
- Shortened on-duty hours, reducing fatigue;
- Increased control over break-time activities (*i.e.* using the break to load or fuel);
- Simplified implementation; and,
- Short-haul trip benefits.

Several commenters said, counterintuitively, that the 30-minute break made them more tired. The implication of such arguments seems to be that the focus on driving creates tension, which dissipates when drivers stop. Having relaxed against their will for 30 minutes, drivers may then find it difficult to recover their previous intensity, which feels to them like exhaustion—but does not have that effect. Virtually all commenters argued that the 30-minute break did not improve safety, and some even asserted that increases in CMV crashes and fatalities in recent years are attributable to counter-productive regulations like the 30-minute rule.

ATA described new research that the association believed suggested that there is additional benefit relative to an on-duty break. The Trucking Alliance and CVSA also said that a 30-minute on-duty break would not decrease safety for drivers needing a break.

The International Food Service Distributors Association stated that, in some cases, the proposal would allow food-service distributors to add additional stops to a route, maximizing efficiency and reducing traffic.

FMCSA Response: The Agency agrees with the commenters that the 30-minute off-duty break generates pressure as drivers attempt to keep on schedule. Under certain circumstances, it may even push them to drive more aggressively than they would otherwise have done in the latter half of the 14-hour driving window, despite the fact the total driving time up to that point may have been limited by a variety of factors.

Identifying causal connections between particular rules and safety outcomes is difficult, many factors play a role in most crashes, and separating their individual contribution is often impossible. The best evidence on the effect of breaks is provided by the 2011 Blanco study, discussed in the NPRM and elsewhere in this rule.[18] While

[18] ''The Impact of Driving, Non-Driving Work, and Rest Breaks on Driving Performance in Commercial Motor Vehicle Operations.'' Blanco, 2011. Available in the docket for this rulemaking.

FMCSA has concluded that both on-duty breaks and off-duty breaks provide safety benefits essentially equivalent to those produced by an off-duty break (as well as productivity benefits), the Blanco study demonstrates that breaks of at least 30 minutes—whether on or off-duty—reduce SCEs in the hour after driving resumes.

FMCSA notes that many of the commenters who opposed a break of any kind provided inconsistent arguments. For example, the National Association of Small Trucking Companies quoted with approval a long-time member who said that ''99.9 percent of all drivers will take a break of more than 30 minutes in any given 8-hour period'' and therefore ''the 30-minute mandatory break should disappear.'' But if drivers routinely take 30-minute breaks during the work shift, as others have also noted, neither the previous break nor the amended break requirement adopted today could be as disruptive as many commenters have claimed. Furthermore, a large number of commenters asserted that they should be allowed to take breaks when they feel tired, not when an inflexible rule requires a break. Leaving aside the fact that the FMCSRs never prevent drivers from taking breaks, many of these comments imply that the 30-minute break typically interrupts drivers' schedules at the 8th hour. In fact, both the previous regulations and this final rule allow drivers to take a break at any point during an 8-hour period, offering latitude to select a convenient time.

Exemptions from the 30-minute break previously granted by FMCSA do not imply that the rule is ineffectual, as some commenters claimed, but rather that certain operations already include significant break time; require driver attendance when transporting hazardous cargo without other work, similar to § 395.1(q); depend on oversize vehicles which, because of their unusual size, are difficult to park for a break; or involve the transport of live animals that could be endangered by a break.

Commenters Opposed to the Proposed Revision. Some individuals and drivers stated, without further explanation, that the 30-minute break should remain as off-duty time. Some individual commenters and drivers said they did not want to allow an on-duty 30-minute break because:

- Drivers would have to adjust schedules.
- Managers might abuse the on-duty break.
- Taking the break on-duty could fatigue drivers.

Some commenters, including a few industry organizations, cited research discussing fatigue, arguing that the 30-minute break must be off-duty to ensure that a driver will physically rest. The Truck Safety Coalition, et al. cited evidence saying that ''driving time that occurred later in the driver's workday, due to performing nondriving tasks earlier in the workday, had a negative safety effect.'' [19]

Advocates argued that many of FMCSA's claims, reasoning, and examples presented for the proposed changes to the 30-minute break are not valid, deeply flawed, inapplicable, and lack explanation and/or analysis.

FMCSA Response: After reviewing the comments, FMCSA has not changed its conclusion that it should allow the 30-minute break to be met either by on-duty, not-driving time or by off-duty time. Also, the Agency concludes it is appropriate to allow drivers the discretion to take the 30-minute break at any point in the 8 hours after they start driving. Blanco, et al. (2011) found that the 1-hour window after a break from driving is associated with a significant reduction in SCE rate compared to the 1-hour window before a break.[20] The study found that any type of break was beneficial to the driver, whether the break consisted of work activities or rest. To counter the effects of driving time that occurred later in the driver's workday, the Soccolich article stated ''breaks were found to be a successful countermeasure to address the negative effects of time-on-task.''

Estimating a Change in SCEs with the 30-Minute Break. The NPRM requested comments regarding how to estimate the change in SCEs from this temporal shift in the 30-minute break. Safety for the Long Haul Inc. provided research and data sources, arguing that SCEs are no longer a valid safety measurement and that FMCSA should choose another method of estimation. Safety for the Long Haul Inc. also commented on Naturalistic Driving (ND) Mixed-SCE Methodology studies, arguing that current SCE datasets are invalid, and that the SCE definition should be reconsidered. No other comments were received regarding the use of SCEs.

FMCSA Response: FMCSA disagrees with the comments criticizing the Agency's use of SCEs. SCEs are a commonly used crash surrogate in traffic safety and naturalistic driving research. Crash surrogates are safety-related events (*e.g.,* time to collision, lane deviations, near crashes, etc.) used to evaluate crash potential and probabilities. Crash surrogates have been extensively used in the traffic safety research domain. There is a long history of methodologically diverse transportation studies that used crash surrogates as dependent variables. Crash surrogates are regularly used by research organizations worldwide, including an active research community affiliated with the Transportation Research Board (TRB) of the National Academies of Sciences, Engineering, and Medicine (National Academies) on this topic. The Subcommittee on Surrogate Measures of Safety, sponsored by the TRB Committee on Safety Data Evaluation and Analysis, meets regularly to discuss issues pertaining to crash surrogates. The goal of the subcommittee is to examine the suitability and use of surrogate measures of safety to address the lack of available crash data. One output of this subcommittee is a document that provides an overview of how surrogate measures are defined and used in transportation research.[21]

Although the features of SCEs can vary based on the research question posed in a particular study, an SCE has been defined as a ''crash, near-crash, crash-relevant conflict, or unintentional lane deviation'' that often has a measurable kinematic signature, including longitudinal and lateral acceleration, yaw rate, and active safety system activations.[22] SCEs, such as near-crashes, are used in various transportation modes. In rail, SCEs are defined as ''risk to the health and safety of any individual or risk of damage or destruction to any property, or any incident which may reduce the safety or integrity levels of any item of Railway Infrastructure.'' [23] The FAA also relies

[19] Soccolich, S., Blanco, M., Hanowski, R., Olson, R., Morgan, J., Guo, F., & Wu, S.C. (2013) ''An analysis of driving and working hour on commercial motor vehicle driver safety using naturalistic data collection.'' Accident Analysis & Prevention, Volume 58, 2013, Pages 249–258.

[20] Blanco, M., Hanowski, R., Olson, R., Morgan, J., Soccolich, S., Wu, S.C., & Guo, F. (2011) ''The Impact of Driving, Non-Driving Work, and Rest Breaks on Driving Performance in Commercial Motor Vehicle Operations.'' Available in this rulemaking docket.

[21] ''Surrogate Measures of Safety'', Tarko, Davis, Saunier, Sayed, and Washington, 2009. Available at *https://www.semanticscholar.org/paper/Surrogate-Measures-of-Safety-Tarko-Davis/30801fa815159dad645eed6f1e3dbbbba2f30150,* last accessed January 21, 2020.

[22] ''The Risk of a Safety-critical Event Associated with Mobile Device Subtasks in Specific Driving Contexts'', Fitch, Hanowski, Guo, 2014. *https://vtechworks.lib.vt.edu/bitstream/handle/10919/49687/NSTSCE%20Final%20Report%20for%20Cognitive%20Distraction.pdf* and *https://www.annualreviews.org/doi/abs/10.1146/annurev-statistics-030718-105153,* last accessed January 21, 2020.

[23] *https://www.lawinsider.com/dictionary/safety-critical-event,* last accessed January 21, 2020.

on crash surrogates, including near midair collisions. As outlined in the Aeronautical Information Publication, crash surrogates identify unsafe conditions, allowing issues to be corrected before they lead to crashes and other incidents.[24]

SCEs and crashes have common characteristics (*e.g.,* kinematic signature), but SCEs occur with greater frequency than crashes. As crashes are rare events, studying SCEs allows researchers to gain insight into the factors that lead to crash genesis. The National Academies advocated several principles to determine the validity of using specific types of SCEs as crash surrogates.[25] Use of SCEs is warranted if: (1) It can be shown the SCEs have causal factors identical to those of crashes, and (2) there is a strong correlation in the frequency of SCEs over different driving scenarios. To illustrate these principles in practice, a study found that near crashes provided useful information for the risk of distraction while driving.[26] A different study found g-force thresholds were a good predictor of crash risk.[27]

Crash surrogate research has a long history in surface transportation safety that can be traced back to the 1960's. For example, ''Traffic Conflict'' has been used in many studies as a measure of crash potential, and the Federal Highway Administration developed ''guidelines to diagnose safety and operational problems and evaluate the effectiveness of safety countermeasures, 'Traffic Conflict Techniques for Safety and Operations.' '' [28] Many research organizations, both in the USA and internationally, use SCEs in their naturalistic driving studies. A sample of organizations involved in naturalistic driving research includes: University of Michigan Transportation Institute; the Pennsylvania State University; University of Iowa; University of California; the Virginia Tech Transportation Institute (VTTI); the Volpe National Transportation Systems Center; SAFER Vehicle and Traffic Center in Sweden; SWOV Institute for Read Safety Research in The Netherlands; and several European consortium projects including UDRIVE, INTERACTION, PROLOGUE, DaCoTA, and 2–BE–SAFE.[29]

Thus, the use of crash surrogates in understanding traffic crashes is nothing new, but rather a well-established and acceptable approach in understanding crash genesis across multiple transportation modalities. Furthermore, naturalistic driving research is widely used, by many research organizations in both the USA and internationally, and is an accepted, valid method for studying traffic safety.

Changes to Schedules due to the 30-Minute Break Changes. In the NPRM, FMCSA asked if drivers would take fewer breaks from driving under the proposed change and when those breaks would occur. Survey results from OOIDA indicate that its members did not anticipate taking fewer breaks as a result of the proposed changes. Other commenters said that they would not change their schedules. A commenter involved in local operations did not expect any impact on the frequency or timing of breaks. The National Propane Gas Association thought the changes would allow a rest break later in the driver's route, relieving some driving-related fatigue.

Some commenters said that additional flexibility would increase their ability to plan the required break times around deliveries, and thus increase their efficiency. For example, representatives from the propane industry noted that these changes would increase their ability to respond to short-term fluctuations in demand, such as holiday times, extreme cold spells, and the recent corn crisis in the Midwest. Some other commenters, however, believed that these changes would not have any impact on scheduling. ACPA noted that the current requirements for an off-duty break affect its members' ability to efficiently schedule concrete deliveries.

FMCSA Response: The comments received on this question show that the changes to the 30-minute rule are not likely to have an adverse impact on safety because the changes would not significantly decrease the number of breaks being taken by drivers. Based on the feedback provided during the public listening sessions and the written comments provided by individuals identifying themselves as drivers, the Agency believes drivers routinely take breaks during their work shifts. While those off-duty breaks may be less than 30 minutes in duration, and other breaks may be recorded as on duty/not-driving, they have and will continue to take place. FMCSA emphasizes that the only drivers who are no longer required to take a 30-minute break under this provision are drivers who drive for less than 8 hours in a day and who are therefore unlikely to accumulate the levels of fatigue necessitating a mandatory 30-minute break in addition to breaks that naturally occur during their workday.

FMCSA believes the increased scheduling flexibility afforded to drivers with these changes may increase their efficiency, but is unlikely to significantly affect driving hours or the amount of work completed in a shift. The changes will give drivers greater ability to plan their breaks, and allow for on-duty activities such as time spent at loading docks to fulfill the break

[24] *https://www.faa.gov/air_traffic/publications/atpubs/aip_html/part2_enr_section_1.16.html,* last accessed January 21, 2020.

[25] ''Commercial Motor Vehicle Driver Fatigue, Long-Term Health and Highway Safety; Research Needs.'' Rizzo et al., 2016. *https://books.google.com/books?hl=en&lr=&id=zEnnDAAAQBAJ&oi=fnd&pg=PR1&dq=The+National+Academies+Rizzo,+Matthew+2016&ots=U7c3zm0EN4&sig=lwF1gq6CttdIOtsIV0C8puIE-kI#v=onepage&q=The%20National%20Academies%20Rizzo%2C%20Matthew%202016&f=false,* last accessed January 21, 2020.

[26] ''*Near Crashes as Crash Surrogate for Naturalistic Driving Studies*'' Guo, F., Klauer, S.G., Hankey, J.M., Dingus, T.A. (2010) *https://doi.org/10.3141/2147-09,* last accessed February 7, 2020.

[27] ''Do Elevated Gravitational-Force Events While Driving Predict Crashes and Near Crashes? American Journal of Epidemiology. 2012;175(10):1075–1079.'' Simons-Morton et al., 2012. *https://doi.org/10.1093/aje/kwr440,* last accessed February 6, 2020.

[28] ''Traffic Conflict Characteristic-Accident Potential at Intersections.'' Perkins and Harris, 1968. *https://www.trid.trb.org/view/1310479,* last accessed February 6, 2020.

[29] ''Characteristics of turn signal use at intersections in baseline naturalistic driving.'' Sullivan, Bao, Goudy, and Konet, 2015. *https://dx.doi.org/10.1016/j.aap.2014.10.005, Last accessed February 6, 2020.* ''Screening Naturalistic Driving Study Data for Safety-Critical Events.'' Wu and Jovanis, 2013. *https://doi.org/10.3141/2386-16* Last accessed February 6, 2020. ''Prevalence and Distribution of Young Driver Distraction Errors in Naturalistic Driving.'' Carney, McGehee, and Reyes, 2014. *https://www.ppc.uiowa.edu/publications/prevalence-and-distribution-young-driver-distraction-errors-naturalistic-driving, Last accessed February 6, 2020.* Ohn-Bar, Martin, Trivedi, 2013. ''Driver hand activity analysis in naturalistic driving studies: challenges, algorithms, and experimental studies.'' *https://cvrr.ucsd.edu/publications/2013/hand_JEI13.pdf,* Last accessed February 6, 2020. ''Estimating Crash Risk. Ergonomics in Design: The Quarterly of Human Factors Applications.'' Dingus, Hanowski, and Klauer, 2011. ''Distracted Driving and Risk of Road Crashes among Novice and Experienced Drivers.'' Klauer et al., 2014. *https://www.nejm.org/doi/full/10.1056/NEJMsa1204142, last accessed February 6, 2020.* ''Exposure-risk analysis of large truck naturalistic driving data'' *https://trid.trb.org/view/1156430,* last accessed February 6, 2020. ''Naturalistic Study of Truck Following Behavior.'' Knipling, et al. (2005). *https://trid.trb.org/view/1156430.* ''Naturalistic Study of Truck Following Behavior.'' Nodine, Lam, Yanagisawa, and Najm, 2017. *https://doi.org/10.3141/2615-05,* last accessed February 6, 2020. ''Analysis of Naturalistic Driving Study Data: Safer Glances, Driver Inattention, and Crash Risk.'' Victor, et al., 2015. *https://www.researchgate.net/publication/281107412_Analysis_of_Naturalistic_Driving_Study_Data_Safer_Glances_Driver_Inattention_and_Crash_Risk,* last accessed February 6, 2020. ''Exploring application areas for naturalistic driving observation studies: potential for research on ITS.'' van Nes, N., Backer-Grondahl, A., and Eenink, R., 2010. *https://www.swov.nl/en/publication/exploring-application-areas-naturalistic-driving-observation-studies-potential-research,* last accessed on February 6, 2020. *http://www.udrive.eu/files/SWOV_Factsheet_Naturalistic.pdf,* last accessed on January 21, 2020.

requirement. This increased flexibility could increase VMT for an individual driver during a given shift, but would affect only the amount of work performed in shifts taking more than 13.5 hours to complete. This is because the 30-minute break during a shift that is less than 13.5 hours would not result in reaching the 14-hour limit, and thus would not limit the amount of work performed.

FMCSA analyzed recent data from VTTI and found that shifts that ran 13.5 hours or more comprise less than four percent of all shifts.[30] For these shifts that do require more than 13.5 hours of duty time to complete, the new break requirements may allow for a shift to be completed on time rather than carry over to the next duty period. However, FMCSA does not anticipate that increasing a given shift by 30 minutes of on-duty time would enable motor carriers to meaningfully increase aggregate VMT. FMCSA notes that ACPA members currently operate under an exception that allows for on-duty time (*i.e.,* the drivers are not necessarily free to leave the work site to pursue activities of their own choosing) to fulfill the 30-minute off-duty break as long as no work is being performed.[31] This final rule will allow for ACPA members to work under the same conditions as provided by this exception, and thus FMCSA does not expect any changes in the scheduling abilities of concrete pumping operations. Therefore, FMCSA did not estimate impacts resulting from changes to schedules or planning that may result from the final rule.

Impact on Individuals Driving Less than 8 Hours. The NPRM proposed that the break occur no later than after 8 hours of driving, and the Agency asked drivers who drive less than 8 hours if they anticipated taking breaks, even though it would not be required.

A few individuals and trade associations said drivers would still take a break with less than 8 hours of driving. Several commenters said they would take their break off-duty if driving less than 8 hours. Several others said they would take their break on-duty if driving less than 8 hours. IBT said more than half of its survey respondents would take their 30-minute break as off-duty time even if less than 8 hours of driving time had passed since their last change in duty status.

OOIDA provided survey statistics showing that over 50 percent of survey respondents anticipate that drivers would still take a break with less than 8 hours driving, and most of those drivers would continue to take an off-duty break.

A few trade associations said that the answer would change for each individual driver due to personal scheduling choices. TruckerNation stated that the opportunity to use on-duty, not driving time as a 30-minute break would encourage and incentivize drivers to use their break when they might otherwise be interrupting the driving task.

Conversely, a few drivers said they would not take a break if they were driving less than 8 hours.

FMCSA Response: Although the comment responses were almost equally split, the Agency believes most drivers who drive for fewer than 8 hours would take some sort of break during the work shift due to the naturally occurring breaks (such as when cargo is loaded or unloaded) that occur during the workday. FMCSA believes the on-duty breaks from the time on task would be beneficial and the Agency encourages drivers to take a break irrespective of whether they have been operating the vehicle for 8 consecutive hours.

Comments About the Impact of the 30-Minute Break on VMT. FMCSA asked whether the changes to the 30-minute break provision would result in drivers increasing their VMT or driving hours. Commenters responded that the proposed changes would increase the flexibility to plan their schedules. Commenters were divided, however, on how this increased flexibility would affect driving and work time. OOIDA believes that increased flexibility would improve driving efficiency, thus allowing drivers to increase VMT while not increasing driving hours. Some commenters, including industry associations, believe that this change would allow drivers to add additional deliveries to their shift. Still others, including drivers and an industry association, believe that this change would not have a significant impact on VMT, driving hours, or the number of deliveries completed by drivers in a shift.

FMCSA Response: FMCSA disagrees with commenters that the increased flexibility afforded to drivers by these changes will increase aggregate VMT. FMCSA does not expect the changes to increase significantly driving hours or the number of deliveries that drivers can complete in a shift. Due to the 14-hour window for an on-duty day, the only way that the proposed changes would affect the amount of work completed in a shift is if the shift would have required more than 13.5 hours. Under the previous rules, shifts of 13.5 hours or more would need to have been truncated for an off-duty break after 8 hours of on-duty time. As noted above, FMCSA analyzed data on work hours from VTTI and found that less than four percent of all shifts surpass the 13.5-hour limit where they would be impacted by the proposed changes.[32]

For truckload (TL) drivers, FMCSA does not expect that the proposed changes would allow drivers to complete additional deliveries. One way that the proposed changes may affect work hours is that, if a driver has a run that requires more than 13.5 hours of duty time to complete, the new break requirements may allow completion of the run in one day rather than having it carry over to the next duty period. In contrast to TL drivers, the proposed changes may enable less-than-truckload (LTL) drivers to add additional deliveries to their routes or shift deliveries from one driver to another. The Agency, however, does not have any data or information to suggest that the proposed changes would result in an increase in the aggregate number of deliveries or the amount of freight moved in the LTL sector. Therefore, FMCSA has not estimated a change in VMT or deliveries resulting from the final rule.

Total Elimination of the Break. The NPRM asked a series of questions about changes to the 30-minute break.

(1) What would be the safety impact of eliminating the required break, potentially allowing up to 11 consecutive hours of driving?

Some commenters argued that drivers rarely drive for the full 11 hours, and that there was thus no need for a 30-minute break rule. Drivers and carriers also noted that drivers take bathroom and food breaks within their 11-hour driving window, regardless of a mandated break.

Several commenters questioned the safety of eliminating the 30-minute break. The NSC cited research showing that the longer people are required to perform a task, the more their cognitive and physical functions (attention, speed, and accuracy) decline. Road Safe America argued that the break is important for safety, noting research included in the 2011 HOS rule which found that crash risk was elevated with fatigue. Citing numerous studies, Advocates argued that the body of research shows that longer driving hours are directly related to increased crash risks from at least the 7th through the 11th consecutive hour of driving. IBT, citing research, claimed that as pay

[30] See the RIA for more details.

[31] 83 FR 54975, November 1, 2018.

[32] See the RIA for more details.

per hour increases, but work hours decrease, and safety increases.

OOIDA, on the other hand, said eliminating the break would allow drivers to more safely identify and schedule opportunities to rest at truck stops and other locations for safe parking. CVSA said it does not believe there is evidence that the 30-minute break improves safety. A few motor carriers and individual drivers said that the 30-minute break forced them to pull over at inopportune or dangerous times.

(2) What has been the cost to your company of complying with the 30-minute break rule since the compliance date for that rule, July 1, 2013?

OOIDA said the cost of the rule is a mile per minute, costing drivers 30 miles per break, in addition to causing longer days, late deliveries, and emotional stress. The American Moving and Storage Association responded that eliminating the 30-minute break could provide a full extra workday for drivers each month and save $10,000 per month in labor costs.

(3) How often do work shifts require an individual to drive more than 8 hours without at least a 30-minute change in duty status?

OOIDA commented that § 395.3(a)(3)(ii) requires drivers to take a 30-minute off-duty break if more than 8 hours have passed since the end of their last off-duty or sleeper berth period.

(4) Would eliminating the break requirement result in greater cost savings than the current proposal? If so, what would be the amount of these cost savings?

OOIDA responded that eliminating the break requirement outright would result in greater cost savings and safety benefits than the current proposal at an estimated cost savings of one mile per minute. OOIDA supported the proposed 30-minute on-duty option, but would prefer elimination of the break.

The question about the value of a 30-minute break elicited sharp disagreement between safety groups and IBT on the one hand and industry representatives and CVSA on the other. The former cited studies showing that fatigue increases and cognitive abilities decline with time on task. They argued that eliminating the 30-minute break requirement would potentially allow up to 11 consecutive hours of driving, with significantly increased safety risks. The latter said the rule increases stress as drivers try to complete a run before the end of the 8th hour, with adverse effects on safety. Furthermore, they claim that the rule is unnecessary because most drivers take at least a 30-minute break during the workday, though some of these breaks combine on- and off-duty time. Drivers are compelled to take an additional break that has no added value. CVSA noted that the rule is hard to enforce and that evidence for its safety benefits is not clear.

FMCSA Response: The changes to the 30-minute break rule are adopted as proposed in the NPRM. FMCSA continues to believe that 11 consecutive hours of driving should not be allowed, even though relatively few drivers may undertake such runs. The Blanco study, discussed elsewhere in this final rule, shows that breaks reduce SCEs in the hour of driving after a break. However, because that study did not clearly demonstrate a significant difference between off-duty and on-duty breaks, the Agency is allowing drivers the discretion to take either type of 30-minute break at any point before the 8th consecutive hour of driving. Some of the commenters who oppose the break requirement admit that an on-duty break provides real-world advantages since it allows drivers to perform routine but necessary non-driving tasks, such as refueling, instead of sitting idle and frustrated, while the clock ticks off 30 minutes. Although many commenters implied—erroneously—that the previous rule required a break at a specific time, the rule adopted today will enable drivers who already take on-duty (or partially on-duty) 30-minute breaks earlier in their shift to use those breaks in fulfillment of the requirement. Finally, this final rule is easily enforceable, as ELD records show whether a vehicle is in motion or stopped.

While OOIDA argued that the cost of the 30-minute break is the driver's per-mile rate times the 30 minutes he or she is not allowed to drive (at an assumed 60 mph), this statement does not provide a basis for a macro-economic estimate, since there are no data on the number of drivers who drive beyond the 8th hour, the average per-mile rate for truck transportation, or the average speed of CMV operations. OOIDA's conclusion that eliminating the break requirement would generate net benefits is therefore speculative at best. In any case, FMCSA believes CMV operators should not drive more than 8 hours without a 30-minute time off-task break.

New Opportunities If the 30-Minute Break Were Eliminated. The NPRM asked drivers how they planned to spend additional time if the 30-minute break was totally eliminated. A few respondents said they would spend more time at home with the more flexible 30-minute break, while others said they would perform non-driving tasks, and have time for extra deliveries. Most respondents to the OOIDA survey said that more flexibility would allow them to complete their work for the day earlier and get home sooner. IBT commented that its survey respondents indicated that a 30-minute break is necessary to reduce fatigue and that carriers are likely to use the proposal to pressure drivers to use breaks to work. TruckerNation reasoned that, with or without the 30-minute break requirement, drivers are still going to stop for various reasons, including to refuel, eat, check load securement, and use rest areas.

FMCSA Response: FMCSA agrees that the increased flexibility that could have been afforded by the elimination of the 30-minute break may have had the potential for increasing the efficiency of drivers but would have been unlikely to affect significantly driving hours or the amount of work completed in a shift. This is, as noted above, because an increase in work is only likely for those shifts taking more than 13.5 hours of duty time to complete.

Alternatives to the Single 30-Minute Break. Many commenters, mostly individuals and drivers, argued that the 30-minute break should be split up into 10- or 15-minute periods to increase flexibility. Some drivers said only 15 minutes were needed to refuel, do a load check, or use the restroom, arguing that 30 consecutive minutes was an unnecessary regulation.

OOIDA, a few other industry associations, and motor carriers also said the 30-minute break should be split up into shorter periods of the drivers' choosing. OOIDA cited driver surveys, saying most drivers preferred splitting the break into smaller periods to increase driver performance and alertness. A driver and Truckers for a Cause both cited research that sedentary behavior is a health risk, and drivers should be encouraged to stop multiple times to increase circulation.

FMCSA Response: FMCSA acknowledges that multiple breaks may be desirable to commenters but notes that the structure of these breaks would add unnecessary complexity to compliance monitoring. The Agency also emphasizes that many drivers will no longer be obligated to take a break, and that, if a driver wishes to take more frequent, shorter, breaks in addition to the mandatory break, he or she is free to do so.

6. Split Sleeper Berth

NPRM. FMCSA proposed to modify the sleeper berth rule that allows drivers to satisfy the required 10 hours off-duty by taking two off-duty periods, provided that neither period is less than 2 consecutive hours and one period

consists of at least 7 consecutive hours in the berth, and to allow both periods to be excluded from the 14-hour driving window.[33] This sleeper berth exception would provide drivers greater operational flexibility, while affording them opportunity to obtain the necessary amount of restorative sleep.

Motor carriers and other stakeholders were encouraged to submit driver record data supporting their comments in a manner that would not reveal the identity of an individual driver. Given research showing that many drivers typically sleep a little more than 6 consecutive hours, FMCSA also requested comments and any supporting data on the possibility of a 6- and 4-hour split break. Specifically, FMCSA asked:

- How often do you use the sleeper berth provision under the current regulations? Would you use the sleeper berth provision more or less if the proposed changes are finalized? How much more or less?
- How would this provision change your scheduling and planning?
- How often would you utilize the 7–3 hour split during an average week?
- Would you expect to get the same amount of sleep in the 7-hour period as in the current 8-hour period?
- Would you expect to drive more miles or hours based on this change? Do you expect to be able to complete additional ''runs''?

Specific Comments on Research. Advocates argued that the split sleeper berth proposal was inappropriate in view of research the Agency relied upon in previous HOS rulemakings. Advocates also disagreed with FMCSA's assertions concerning the relevance of certain studies cited in the NPRM preamble. The specific studies Advocates discussed are listed below:

- *Mollicone 2007.*[34]
- *Belenky 2012.*[35]
- *Short 2015.*[36]
- *Soccolich 2015.*[37]
- *Mitler 1997.*[38]
- *Hanowski 2007.*[39]
- *Van Dongen 2013.*[40]
- *Dinges 2017.*[41]
- *Sieber 2014.*[42]
- *Maislin 2001.*[43]
- *Wylie 1998.*[44]
- *Caldwell 1997.*[45]
- *Garbarino 2004.*[46]
- *Sallinen 1997.*[47]
- *Moore-Ede 1996.*[48]

There is no need to repeat the discussion of these studies included in the preamble to the NPRM. Since Advocates responded with extensive quotations from the same studies, we have also refrained from repeating their comments here. FMCSA's responses to Advocates' concerns are summarized below.

FMCSA Response: FMCSA acknowledges that the studies cited above do not focus on the specific parameters of the NPRM's sleeper berth proposal. Nonetheless, these studies provide valuable information that supports the safety rationale for retaining the basic framework of the current HOS requirements, with certain revisions. The basic framework, excluding recordkeeping requirements, consists of an 11-hour limit on driving time following 10 consecutive hours off-duty and a prohibition on driving after an individual has accumulated 14-hours of on-duty time during a work shift. That framework also prohibits drivers from driving after accumulating either 60 or 70 hours of on-duty time in 7 or 8 days respectively, but permits them to restart their 60- or 70-hour ''clock'' by taking at least 34 consecutive hours off duty. In addition, the HOS framework allows drivers who use sleeper berths to split the required 10 off-duty hours into two periods, with the longer (in the berth) of sufficient length to allow meaningful rest.

After reviewing the research reports referenced in the NPRM and the Advocates' comments about them, FMCSA reaffirms its assessment that the changes adopted in this final rule will not decrease safety. The rule provides additional flexibility that is neither contrary to the research cited nor inconsistent with the framework described above.

The most relevant research addresses interstate CMV drivers, followed by studies of other types of workers with safety-sensitive duties in settings where fatigue could have similarly adverse driving consequences. The Agency could not control, but always kept in mind, the demographics of the study subjects and the extent to which their schedules were comparable to segments of the motor carrier industry.

For example, the average age of the subjects in the Mollicone study was 29.3 years (ranging from 21 to 49), versus the average age of 46.9 among truck drivers, as estimated by the U.S. Bureau of Labor

[33] This rulemaking does not address sleeper berth provisions unique to the drivers of CMVs transporting passengers, 49 CFR 395.1(g)(3).

[34] Mollicone, D.J., Van Dongen, H.P.A., Dinges, D.F., 2007. ''Optimizing Sleep/Wake Schedules in Space: Sleep During Chronic Nocturnal Sleep Restriction With and Without Diurnal Naps,'' *Acta Astronautica,* 60, 2007. 354–361. Available in the docket for this rulemaking.

[35] Belenky, G., Jackson, M.L., Tompkins, L., Satterfield, B., & Bender, A., 2012. ''Investigation of the Effects of Split Sleep Schedules on Commercial Vehicle Driver Safety and Health,'' Washington, DC: FMCSA. Available in the docket for this rulemaking.

[36] Short, M. A., Agostini, A., Lushington, K., & Dorrian, J., 2015. ''A Systematic Review of the Sleep, Sleepiness, and Performance Implications of Limited Wake Shift Work Schedules,'' Scandinavian Journal of Work, Environment and Health, 41(5):425440. Available at *https://www.ncbi.nlm.nih.gov/pubmed/26103467.*

[37] Soccolich, S., Hanowski, R., & Blanco M., 2015. Evaluating the Sleeper-berth Provision: Investigating Usage Characteristics and Safety-Critical Event Involvement. (Report No. 17–UI–046). Available at *https://vtechworks.lib.vt.edu/handle/10919/73954* Last accessed June 20, 2019.

Soccolich, S., Hanowski, R., & Blanco M., 2015. Evaluating the Sleeper-berth Provision: Investigating Usage Characteristics and Safety-Critical Event Involvement. (Report No. 17–UI–046). Available at https:

[38] Mitler, M.M., Miller, J.C., Lipsitz, J.J., Walsh, J.K., Wylie, C.D, 1997. ''The Sleep of Long-Haul Truck Drivers,'' *New England Journal of Medicine,* 337, 755–761. Available in the docket for this rulemaking.

[39] Hanowski, R.J., Hickman, J., Fumero, M.C., Olson, R.L., Dingus, T.A., 2007. ''The Sleep of Commercial Vehicle Drivers Under the 2003 Hours-of-Service Regulations,'' *Accident; Analysis and Prevention,* 39(6), 1140–5. Available in the docket for this rulemaking.

[40] Van Dongen, H.P.A. & Mollicone, D.J., 2013. ''Field Study on the Efficacy of the New Restart Provision for Hours of Service,'' (FMCSA–RRR–13–058). Washington, DC: FMCSA. Available in the docket for this rulemaking.

[41] Dinges, D.F., Maislin, G., Hanowski, R.J., Mollicone, D.J., Hickman, J.S., Maislin, D., Kan, K., Hammond, R.L., Soccolich, S.A., Moeller, D.D., and Trentalange, M., 2017. ''Commercial Motor Vehicle (CMV) Driver Restart Study: Final Report,'' (FMCSA–RRR–15–011). Washington, DC: FMCSA. Available in the docket for this rulemaking.

[42] Sieber,W K.., Robinson, C.F., Birdsey, J., Chen, G.X., Hitchcock, E.M., Lincoln, J.E., Akinori, N., & Sweeney, M.H., 2014. ''Obesity and Other Risk Factors: The National Survey of U.S. Long-Haul Truck Driver Health and Injury,'' *American Journal of Industrial Medicine,* 57, 615–626. Available at *https://www.ncbi.nlm.nih.gov/pubmed/24390804.* (Accessed January 4, 2019).

[43] Maislin, G., Rogers, N.L., Price, N.J., Mullington, J.M., Szuba, M.P., Van Dongen, H.P.A., and Dinges, D., 2001. ''Response Surface Modeling of the Effects of Chronic Sleep Restriction With and Without Diurnal Naps,''—Report. Available in the docket for this rulemaking.

[44] Wylie, D., 1998. ''Commercial Motor Vehicle Driver Drowsiness, Length of Prior Principal Sleep Periods, and Naps,''—Report. Available in the docket for this rulemaking.

[45] Caldwell, J.S., et al., 1997 ''The Efficacy of Hypnotic-Induced Prophylactic Naps for the Maintenance of Alertness and Performance in Sustained Operations,''—Report. Available in the docket for this rulemaking.

[46] Garbarino, S., et al., 2004. ''Professional Shift-Work Drivers Who Adopt Prophylactic Naps Can Reduce the Risk of Car Accidents During Night Work,''—Report Abstract. Available in the docket for this rulemaking.

[47] Sallinen, Harma, M., Åkerstedt, T., Rosa, R., Lillqvist, O., 1997. ''Can a Short Napbreak Improve Alertness in a Night Shift?''—Report. Available in the docket for this rulemaking.

[48] Moore-Ede, M., Mitchell, R.E., Heitmann, A., Trutschel, U., Aguirre, A., Hajamavis, H., 1996. ''Canalert '95—Alertness Assurance in the Canadian Railways,''—Report. Available in the docket for this rulemaking.

Statistics; [49] the study reported that drivers sleep progressively less as they get older, but the researchers did not find that a 7-hour sleeper berth period is inadequate. They compared daytime neurobehavioral performance for individuals obtaining split sleep with that of individuals operating after a consolidated sleep period of the same total duration, albeit with study subjects younger than the general driver population. The results of the study indicated that sleep duration was largely unaffected by whether the sleep was consolidated into one period or split between anchor sleep periods and naps.

The Agency did not use the Mollicone study as evidence that split sleep is equivalent to consolidated nighttime sleep given that FMCSA's HOS regulations do not currently regulate based on time of day. The preference of drivers for nighttime sleep is well documented—among other things, by the rapid filling up of CMV parking spaces in the evening—but some degree of split sleep is essential in many operations. Split sleep is a viable option, provided the combined rest periods have the same duration as a single consolidated rest period. Mollicone and his colleagues did not opine on the length of the anchor period and the shorter period, but their work does provide a scientific basis for continuing to allow a split-sleep alternative.

FMCSA believes the Belenky study is relevant to the decision-making process because it provides evidence that split sleep is a viable, safe alternative to consolidated daytime sleep. The 5-hour/5-hour split examined by the study involved no extended rest period, unlike the 7-hour minimum sleeper berth period required by the final rule, yet even that split produced better results than consolidated daytime sleep. While split sleep is not preferable to consolidated nighttime rest in terms of sleep quantity and quality, this does not mean the Agency should prohibit a split sleeper berth option and eliminate the flexibility it provides drivers. As discussed by other commenters, consolidated nighttime sleep may not be possible under every circumstance, though drivers clearly prefer to take the longer rest period at night.

FMCSA considers the relative benefits of even an ultra-flexible 5-hour/5-hour split (which the Agency abandoned in its 2005 HOS rulemaking) to be important in evaluating options for regulatory flexibility. Considering many real-world constraints, this research proves that split sleep is an appropriate alternative when drivers' schedules cannot provide for consolidated nighttime sleep.

Advocates criticized the use of the Short literature review because the studies it examined involved maritime and rail personnel, but not CMV drivers, and the Soccolich naturalistic study because it compared the risks associated with 3 restart options, including the 8/2 sleeper berth split, but not the proposed 7/3 split. The design of all studies inevitably imposes limits on their applicability, but that does not vitiate their conclusions. FMCSA continues to believe that these studies add to the body of evidence that split work/rest cycles may be beneficial in certain circumstances. They are among the many reports that provide insights into the potential fatigue mitigation benefits for a split sleeper berth schedule.

The Mitler, Hanowski, Van Dongen/Mollicone, Dinges, and Sieber studies reported on the amount of sleep CMV drivers obtained at the time their research was performed. Mitler and his colleagues found that before 2003, when the FMCSRs required only 8 hours off duty between shifts and allowed sleeper berth splits as short as 5 hours, drivers got about 5.18 hours of sleep per night. Hanowski, Van Dongen/Mollicone, and Dinges reported that, under the subsequent rules, which required 10 hours off duty between shifts and required a minimum 8-hour period in the sleeper berth, CMV drivers got somewhere between 6 and 6.5 hours of sleep per day. Based on a survey of 1,670 long-haul CMV drivers, Sieber concluded in 2014 that ''drivers are likely getting more sleep than other working adults in the United States.'' The response of the Advocates is essentially that, whatever the recent improvements in drivers' total sleep time, they still are not getting enough sleep to combat fatigue, especially in a safety-critical occupation. FMCSA continues to believe its discussion of these reports was appropriate for the context in which they were mentioned. Taken in context, the Mitler report highlights the shortcomings of the pre-2003 HOS requirements. This final rule provides increased flexibility while continuing to require a sleeper berth period of sufficient length to accommodate the real-world needs of most drivers.

The Hanowski and Van Dongen/Mollicone, and Dinges studies highlight the hours of sleep that drivers obtain. The Agency has taken care not to adopt regulatory options which would deprive drivers of the opportunity to obtain the rest they need to perform safely.

Until this final rule, the anchor sleeper berth period was at least 8 hours in duration. Despite that requirement, the evidence shows that drivers obtained 6 to 6.5 hours of sleep per day. It is not clear why drivers do not sleep longer, and there are no clear solutions to this challenge. It is worth repeating, however, that the survey conducted by the National Institute of Occupational Safety and Health in 2010 (as cited in Sieber, 2014), and reported in the NPRM, found that 73.5 percent of long-haul truck drivers reported sleeping more than 6 hours per night, compared with 68.9 percent of the general working population.

Given the reality that many drivers are not prone to sleep more than 6.5 hours, as shown by the Dinges and Van Dongen studies, providing additional flexibility for sleeper berth usage is reasonable and appropriate. Under this final rule, any driver who wishes to end the sleeper berth rest period after 7 hours may do so. As shown by Dinges and Van Dongen, this allows the driver sufficient time to obtain the amount of sleep that the average driver receives in a single consolidated period. And, nothing in this rule prohibits a driver from spending more time in the sleeper berth.

As noted above, studies generally have limitations, and the Agency did not attempt to list all of them, including for the Sieber study published in 2014. However, the alleged limitations of the Sieber study attributable to ''self-reporting'' do not invalidate its findings when viewed in an appropriate context. Absent the use of very expensive and time consuming actigraphy and other scientific instruments to monitor drivers' activities, surveys are the only cost-effective means to gather such information. The resulting data is valuable when drivers have no reason or incentive to submit inaccurate responses.

Although the Sieber study did not report on sleep time in the sleeper berth or distinguish between total sleep on workdays versus non-workdays, the findings provide yet another piece to the complex puzzle concerning fatigue.

Maislin and colleagues showed in 2001 that subjects who slept for 6.2 hours at night, combined with a nap of 1.2 hours, had lower levels of sleepiness and higher levels of performance, compared to subjects who slept shorter periods without naps. The Agency cited this finding in its 2005 final rule, but concluded that an 8-hour sleeper berth period was needed. FMCSA adopted an 8-hour sleeper-berth requirement in

[49] *https://www.bls.gov/cps/cpsaat18b.htm,* last accessed February 6, 2020.

2005 essentially out of an abundance of caution. At that time, there was no consensus on the amount of sleep needed to maintain cognitive performance. The Agency therefore decided to take a conservative approach and adopt the recommendation of many researchers for a sleeper-berth period of at least 8 consecutive hours.

Advocates essentially charged FMCSA with contradicting its previous position. That is not true. While the Agency is concerned, as it was in 2005, to give drivers adequate opportunity to obtain restorative sleep, the 6.2 hours of sleep reported by Maislin is well within the 7-hour sleeper berth period allowed by this final rule. And the other 3 hours of off-duty time, paired with the 7 hours in the berth, give drivers more than adequate opportunity to take a nap of 1.2 hours, should they feel the need to do so.

Similarly, the Wylie study is one of several that the Agency cited to highlight the benefits of napping. Although Wylie's research found that napping reduced drowsiness, he cautioned that drowsiness (caused by sleep inertia) remained elevated for two hours after napping. That does not negate the value of naps; it merely emphasizes that they must be used along with a period of consolidated sleep. This final rule provides adequate opportunities for both.

The Caldwell, Gabarino, and Sallinen studies help make clear that fatigue mitigation requires education of employers and drivers to better understand the importance of properly using the sleeper berth anchor period and taking advantage of the shorter rest period for napping. While the effect of naps may vary, depending, in part, on the point in the driver's circadian cycle when they are taken, as the authors noted and Advocates reiterated, any nap has some restorative value. Taking advantage of the shorter period would require trip planning to optimize the time and location of the nap.

FMCSA is fully aware of the limitations of the individual studies cited in the NPRM. The Agency made every reasonable effort to present the references in an appropriate context so that the studies could be viewed as pieces in a complex but unavoidably incomplete puzzle. In fact, the lack of studies squarely applicable to the NPRM's sleeper berth proposal requires a nuanced and holistic evaluation of available research, combined with an understanding of motor carrier operations that FMCSA is uniquely qualified to provide.

Commenters Supporting the Sleeper Berth Proposal. Many commenters, mostly individuals and drivers, provided brief, general support for the changes to the split sleeper berth provisions because they would accomplish the following:

- Provide greater flexibility for the driver to rest.
- Encourage more drivers to take more rest breaks.
- Provide drivers the opportunity to sleep while waiting during the loading and unloading process.
- Enable drivers to stop in safe locations.
- Increase efficiency in the trucking industry.

OOIDA commented that the proposed changes would no longer require drivers to sit idle when they are capable of driving safely. ATA, OOIDA, and other industry associations also commented that the added flexibility would improve driver rest. ATA provided citations to research suggesting that increased flexibility would better accommodate split sleep schedules, and that this would improve driver health.

Keep Trucking, Inc., a technology company provided data on the impact of traffic congestion on driving, commented that the proposed sleeper berth provisions would allow drivers to better mitigate these impacts. Other commenters, including industry associations, also said the provision would enable drivers to avoid critical traffic periods in most major urban areas.

An individual commenter supported the proposed change but recommended that greater importance be placed on the 7-hour sleeper berth requirement and cited research in asserting the health and safety benefits of ensuring that drivers get 7 hours of sleep. On the other hand, the Kentucky Driver's Association commented that circadian rhythms differ among individuals, and that greater flexibility will result in better rest for drivers as a result. Other commenters said the NPRM accommodates the fact that drivers frequently can sleep only 7 hours at a time and do not need 8 consecutive hours of sleep.

TruckerNation supported the proposed changes, but also recommended that FMCSA perform outreach and training to educate drivers and enforcement authorities as to the operation of the split sleeper berth rules.

FMCSA Response: As FMCSA noted in the preamble of the NPRM, many motor carriers and industry associations believe the current sleeper berth provisions are too rigid and that drivers do not have enough opportunities to stop driving and take breaks when they are fatigued. Sieber et al. (2014) reported that approximately 26 percent of drivers sleep less than 6 consecutive hours per night and about 51 percent sleep between 6 and 8 consecutive hours per night.[50] Some drivers may find it difficult to sleep more than 7 consecutive hours. However, the current sleeper berth provision requires them to be in the berth for 8 consecutive hours, thus, confining them to the berth for more time than many of them need for sleeping.

Maislin, et al. (2001),[51] cited in the preamble to the NPRM, showed that it is possible for a person to avoid physiological sleepiness or performance deficits on less than 7 hours of sleep; the subjects in these studies were supplementing their sleep with longer naps later in the day. The study found that a shorter restricted anchor sleep (*i.e.,* the longer sleeper berth period) combined with longer naps can reduce sleepiness and performance deficits similar to longer duration anchor sleep alone.

The Agency does not believe there is sufficient data to support reducing the longer sleeper berth period to 6 consecutive hours, paired with another rest period of at least 4 hours, as some commenters requested. A 6-hour period could result in average sleep periods that would not allow drivers the opportunity to obtain 6.2 hours sleep, which the average driver receives as reported by Dinges and Van Dongen.

Commenters Seeking Flexibility for Sleeper Berth Use Beyond the NPRM. Numerous commenters, mostly individuals and drivers, argued that the proposed changes concerning split sleeper berth do not provide enough flexibility. Their comments generally emphasized the following:

- The proposed split is a confusing option that few understand, and even fewer would properly apply.
- More simplification, flexibility, and options are needed.
- Drivers have different sleep cycles, need different amounts of sleep, and face unique circumstances every time they drive.
- Drivers should be able to decide when to rest.

IBT cited the Belenky study in supporting its argument for sleeper

[50] Sieber, K.W., Robinson, C.F., Birdsey, J., Chen, G.X., Hitchcock, E.M., Lincoln, J.E., Akinori, N., and Sweeney, M.H., 2014. ''Obesity and Other Risk Factors: The National Survey of U.S. Long-Haul Truck Driver Health and Injury,'' American Journal of Industrial Medicine, 57, 615–626. Available at: *https://www.ncbi.nlm.nih.gov/pubmed/24390804,* last accessed January 4, 2019.

[51] ''Response Surface Modeling of the Effects of Chronic Sleep Restriction With and Without Diurnal Naps,'' Maislin, et al., 2001. Available in the docket for this rulemaking.

berth periods as short as 5 hours. An industry association asserted that more flexible sleeper berth rules would result in savings of $4 million and 60,000 hours of trucker driving time along a specific roadway.

The Specialized Carriers and Rigging Association commented that drivers transporting over-dimensional loads would especially benefit from a more flexible sleeper berth split, since they are often affected by city curfews and other local regulations.

FMCSA Response: FMCSA believes that this final rule provides sufficient flexibility without compromising safety. Because the alternative sleeper berth cycles commenters sought involved periods that were both shorter than the average time that drivers are currently sleeping, additional research and data are needed to understand the potential safety impacts.

Commenters Opposed to the Split-Sleeper Proposal. Some commenters, mostly individuals and drivers, disagreed with the proposal because:

- The current 8/2 split suffices.
- The 7/3 split is not in the best interest of the driver and would allow drivers to drive without being fully rested.

Senator Murray stated that the proposed change will in fact greatly compromise drivers' right to uninterrupted consecutive rest and asserted that the proposal would fragment driver sleep. AASM also opposed the change, asserting that the proposed rule fails to sufficiently consider the effect of reduced sleep quality associated with sleep disorders that are expected to occur when sleeping in a berth, and working longer hours. AASM also commented that the provision failed to consider the impacts of circadian misalignment that may accompany 24-hour team driver operations. Likewise, Road Safe America commented that FMCSA ignored its own studies indicating that sleep quality in sleeper berths is worse than that at home, and that FMCSA should further study the quality of sleep in sleeper berths. Advocates argued that the Agency failed to address various detailed implications of the Moore-Ede report, including the timing of the sleeper berth period.

One commenter stated that few drivers will sleep during the shorter break period and that drivers often cannot immediately fall asleep in sleeper berths. The commenter stated that, under the proposed rule, many truckers will be driving with less than 6 hours of sleep in a 24-hour period.

FMCSA Response: The Agency has reviewed comments that suggest the proposed changes to the split sleeper berth provision would decrease driver sleep. The NPRM cited several studies that highlight the benefits of split sleep schedules (Mollicone 2007, Belenky 2012, Short 2015, Soccolich 2015). These studies (discussed in detail above) found that:

- Split sleep schedules are feasible and can be used to enhance the flexibility of sleep/work schedules.
- Participants in the consolidated nighttime sleep and split sleep conditions obtained significantly more total sleep time than participants in the consolidated daytime sleep condition. This suggests that when consolidated nighttime sleep is not possible, split sleep is preferable to consolidated daytime sleep.
- Limited wake shift work schedules were associated with better sleep and lower sleepiness.
- The sleeper berth break was not associated with increased safety risk as compared to the 10+ hour break or the 34+ hour break.

The study results, taken together, support the use of the split sleeper berth provision.

The current sleeper berth rule excluded from the 14-hour driving window the required 8-hour period in the berth. The NPRM proposed a similar exclusion not only for the proposed 7-hour period in the berth, but also for the shorter qualifying off-duty period of at least 2 hours. Advocates argued that none of the studies cited by the Agency speak to the risks of allowing drivers to operate later into their duty period. It is true that no studies examine the specific parameters of the sleeper berth rule proposed in the NPRM, but the absence of academic research exactly on point does not prohibit the Agency from using its own expertise and judgment to promulgate regulations. In this case, FMCSA balanced the industry's desire for added operational flexibility against its overriding responsibility for motor carrier safety and concluded that the shorter of the two off-duty periods would afford drivers an opportunity for rest sufficient to counteract any fatigue effects associated with the extended duty day. In fact, we believe that exclusion of the shorter period will promote more effective rest since drivers need no longer worry that the 14-hour clock is ticking away potential revenue miles while they try to rest. And, unlike the ''pause'' proposed in the NPRM (which the Agency has not adopted in this final rule for reasons explained elsewhere in the preamble), this measure is available only to drivers who use sleeper berths and are thus experienced in obtaining rest in a variety of places.

Dinges found that team drivers were generally very successful in avoiding circumstances of extreme drowsiness.[52] Despite evidence pointing to the fact that they get a lower quality of sleep in a moving sleeper berth, team drivers appear to compensate by spending more time sleeping (or at least resting) relative to single drivers, and by using their backup drivers effectively. The results of this study support what the Agency proposed in the NPRM.

As to the objections raised by Advocates, none of those objections seriously challenges the Agency's conclusions that the sleeper berth provisions proposed in the NPRM will enhance driver and carrier flexibility without adversely impacting safety. As discussed elsewhere in this notice, many studies show that splitting sleep into shorter segments still allows people to maintain health and alertness, especially when coupled with a relatively short nap. And all surveys show that a large majority of Americans, including truck and bus drivers, get less than 8 hours of sleep per day. In fact, the average for drivers seems to be 6.2 to 6.5 hours. Advocates' position that 8 consecutive hours of sleep is necessary to maintain health and cognitive alertness is inconsistent with the studies that FMCSA examined as part of this rulemaking and practical experience and disregards the benefits from a more flexible schedule with a longer nap period (3 hours instead of 2 hours).

Comments on Employer Abuse of the Split Sleeper Berth Proposal. An individual commenter stated that because the rules against coercion do not have the proper consequences, under the proposed rule, employers would compel drivers to take breaks according to the employers' business interests, rather than drivers' rest needs.

Truckers for a Cause commented that the proposed rule should specify that either sleeper berth period may only be taken at times and locations of the driver's choice and may not be taken at a location where freight was picked up or delivered. TruckerNation supported the proposed provision, but argued that without language in the final regulatory text explicitly stating the use of the proposed split sleeper berth provisions are at the driver's discretion, the regulation would allow motor carriers to require drivers to use split sleeper berth

[52] ''Response Surface Modeling of the Effects of Chronic Sleep Restriction With and Without Diurnal Naps.'' Maislin, G., Rogers, N.L., Price, N.J., Mullington, J.M., Szuba, M.P., Van Dongen, H.P.A., and Dinges, D., 2001. Report. Available in the docket for this rulemaking.

provisions and enable ''rampant issues of driver coercion.'' Knight-Swift Transportation Holdings, Inc. also expressed concern that the proposed change could be exploited whereby a driver is impelled or compelled to cut short his or her break to resume driving.

FMCSA Response: The Agency believes adequate protections are already in place to protect drivers from coercion. Based on the definition in § 390.5T, coercion is essentially limited to situations where drivers are compelled to operate CMVs in violation of certain DOT regulations, including the FMCSRs. Accordingly, the situations described by commenters do not amount to coercion unless drivers are required to operate CMVs when they claim it would be unsafe to do so based on their level of fatigue, and are threatened with the adverse business or employment consequences specified in the definition for refusal to violate the FMCSRs. Motor carriers are already prohibited from requiring drivers to operate when fatigued under § 392.3. Specifically, motor carriers cannot require drivers to operate CMVs while the driver's ability or alertness is so impaired, or so likely to become impaired, through fatigue, illness or any other cause, as to make it unsafe for him or her to begin or continue operations.

Drivers are also protected under provisions of the Surface Transportation Assistance Act, 49 U.S.C. 31105, which authorizes the Occupational Safety and Health Administration in the Department of Labor to take action on complaints filed by drivers who allege they were fired, disciplined, or discriminated against for engaging in certain protected activities, including reporting a safety violation, refusing to operate a CMV due to a safety issue, or accurately reporting HOS violations.

In any event, given the limited changes to the sleeper berth exception, the Agency has no reason to believe that current practices in the industry in terms of pressure placed on drivers are likely to increase. Finally, nothing in this final rule is intended to negate the professional responsibility of drivers to communicate with their employer about their work schedules.

Comments About Alternatives to the 8/2 and 7/3 Splits. The NPRM requested comments and any supporting data on the possibility of a 6- and 4-hour split break.

Commenters, including the Truckload Carriers Association, briefly stated that the sleeper berth rules should allow a 6/4 split. On the other hand, the Retail Industry Association doubted whether many drivers would use either the 7/3 or 6/4 split. Citing a 1990 study showing that two separate 4-hour blocks of sleep is ''a natural process with a biological basis,'' TruckerNation argued that the use of the 6/4, 4/6, and 5/5 splits would be inherently safer than the current HOS split.[53]

Advocates argued that the Agency has confused the amount of sleep drivers are able to regularly obtain under the current rules with the amount of sleep that is sufficient to combat fatigue. They cited two studies and argued that, when not constrained by work schedules, drivers tend to obtain more sleep than 6 consecutive hours during longer periods of time off-duty, which they said is counter to the basis FMCSA used to justify the 7/3 and 6/4 split options.

In addition to commenters responding to the question about the 6/4 split some commenters suggested other alternatives to the split sleeper berth provisions, including the following:

- Drivers should be able to split their sleep time in other increments, including 5/5.
- The rule should allow drivers to split their sleep time any way they choose.
- The rule should allow a 5/5 split for team drivers.

OOIDA commented that the proposed rule should allow for 5/5 and 6/4 sleep splits, stating that 85% of its drivers supported either such split, with drivers saying they would use these splits 2.02 and 1.86 times per week, respectively. OOIDA said this would work better for drivers who cannot sleep more than 6 hours at a time and would alleviate truck parking congestion. OOIDA provided quotations from the Belenky study in its comment.

TruckerNation said that, to avoid confusion, the regulatory text should explicitly state that a driver can use a split in any order so long as the time equals 10 hours cumulatively and the second split resets the drive's 14-hour clock.

Truckers for a Cause suggested regulatory text that would provide more flexible driving schedules, stating that its proposal would eliminate confusion between sleeper berth and split-duty periods.

Knight-Swift Transportation Holdings, Inc. commented that FMCSA should consider replacing the sleeper berth rule with an off-duty requirement like that in effect prior to the 2004 rule change. Several industry associations supported a single, longer break and two ''nap'' periods (thus allowing three breaks totaling 10 hours).

FMCSA Response: Splitting the 10 off-duty hours required by the HOS rules into 6 hours in the sleeper berth and 4 hours off-duty would give drivers additional flexibility, as many drivers requested, but none of the supporters of a 6/4 split cited research demonstrating the safety of that option.

The results generated by decades of research on sleep and fatigue are strikingly variable. Although it would be an exaggeration to say that a sleep study can be found to justify almost any regulatory position, it is true, as many commenters have pointed out, that the design of a study often makes its findings difficult to apply in a broader context. In fact, it is doubtful that any study could adequately capture the enormous range of operational environments in the motor carrier industry.

The 1990 study TruckerNation cited to show that a 4/4 split is natural and unobjectionable, represents one end of the continuum on which fatigue studies fall. At the other end, some studies appear to show that 8 consecutive hours of sleep are necessary to maintain health and alertness. The average for drivers in the motor carrier industry appears to be around 6.2 hours, which is similar to the average for Americans generally.

FMCSA believes that the current requirement for 8 consecutive hours in the sleeper berth is unnecessarily restrictive and that a 7-hour period would achieve essentially the same benefits, enabling drivers to get about the 6.2 hours of sleep they currently obtain. But there is no clear evidence—to say nothing of a scientific consensus—that a 6-hour (or shorter) sleeper berth period is long enough to prevent cumulative fatigue. That is especially obvious since drivers cannot be expected to fall asleep immediately. The 7-hour period proposed in the NPRM and adopted in this final rule allows enough time for drivers to relax, de-compress, and obtain more than 6 hours of sleep. Having examined a wide range of sleep and fatigue studies, which fail to converge on a single result, the Agency has concluded that the proposed 7/3 split is both scientifically reasonable and responsive to the needs of the driver population for greater flexibility.

The fact that drivers sleep more on weekends or longer off-duty periods is not surprising. Most people who work demanding jobs follow this pattern. But it does not follow that a 7-hour sleeper berth period is therefore unsafe.

Although the comments discussing options beyond the 6/4 option presented

[53] Wehr, T.A., (2012) ''In Short Photoperiods, Human Sleep is Biphasic,'' Journal of Sleep Research, 1(2):103–107. Available at *https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1365-2869.1992.tb00019.x.* (Accessed March 30, 2020).

in the question varied substantially, most of the studies and science cited demonstrate that drivers need at least one primary sleep period of 7 consecutive hours. Many motor carriers and industry trade associations believe the current sleeper berth provisions are too rigid, and that drivers do not have enough opportunities to stop driving and take breaks when they are fatigued.

Based on Sieber et al., (2014) and cited in the NPRM, approximately 26 percent of drivers sleep less than 6 consecutive hours, and about 51 percent sleep between 6 and 8 consecutive hours per night.[54] Some drivers may find it difficult to sleep for more than 7 consecutive hours but the previous rule required them to be in the berth for a minimum of 8 consecutive hours.

The study by Maislin, et al. (2001),[55] cited in the NPRM showed that it is possible for a person to avoid physiological sleepiness or performance deficits on less than 7 hours of sleep; the subjects in this study were supplementing their sleep with longer naps later in the day. Maislin found that a shorter restricted anchor sleep period (*i.e.,* the longer sleeper berth period) combined with longer naps can reduce sleepiness and performance deficits similar to longer duration anchor sleep alone. Thus, this final rule allows for extended shorter rest periods (*i.e.,* a minimum 3-hour consecutive break either in the sleeper berth or off-duty to take a nap for example if ''paired'' with a 7-consecutive hour period in the sleeper berth, totaling a minimum of 10 hours.

FMCSA believes that drivers using the sleeper berth provision adopted in this rule will better accommodate a driver's sleep schedule. The Agency, however, does not believe there is sufficient data to support a single sleeper berth period of any less than 7 consecutive hours.

In response to the TruckerNation request to clarify the use of the provision, and calculation of available hours, the Agency has modified the proposed language to explain how the various sleeper berth provisions interact. FMCSA has also explained in further detail that neither of the two sleeper periods count in the calculation of either the 11- or 14-hour rules. FMCSA has not adopted the proposed ''pause'' in this final rule, which should help to eliminate any confusion in the calculation of compliance with the sleeper berth provisions. However, consistent with the previous rule, a driver's available driving or on-duty time under the sleeper berth provision is calculated from the end of the initial, rather than the second, rest period. FMCSA notes that, under this final rule, neither qualifying rest period required by the sleeper berth rule counts against the 14-hour driving window.

Frequency of use of the 7-3 Split. FMCSA requested comments on how often drivers use the split sleeper berth provision under the current regulations and how often they would use the new provision if the proposed changes were to take effect. Comments on this issue varied widely.

OOIDA provided data from its members which showed that they use the current sleeper berth provision an average of 2.18 times per week. In terms of how their usage might change, 40 percent of OOIDA survey respondents said that they would increase their usage if the proposed changes went into effect, and 54 percent of OOIDA survey respondents said that their usage would stay the same. In addition, the Minnesota Trucking Association noted that its members' drivers would use the sleeper berth provision with the proposed changes 1.5 times per driver per 70-hour week.

Other comments received, however, suggested that the current sleeper berth provision is not widely used and would not be widely used even if the proposed changes went into effect. TruckerNation said that the current provision allowing for an 8/2 split is not frequently used by drivers; however, it did note that drivers seem interested in using the provision if the proposed changes were adopted. Southeast Transportation Systems stated that less than 5 percent of its drivers use the current provision, and does not expect usage to change considerably if the proposed changes were adopted. One driver said that the sleeper berth provision is used relatively little because it is too complex for drivers to understand. Some commenters provided detail on how often they would use the proposed split during an average week. According to OOIDA, respondents to its survey stated that they would use the proposed split an average of 1.85 times per week. In addition, 42 percent of the survey respondents said that the additional flexibility afforded by the proposed split would allow them to complete additional runs.

Other commenters noted that their use of the sleeper berth provisions would increase if the use of sleeper berth time affected the driving clock. An individual driver and the National Propane Gas Association both commented that, if the new provision allowed them to stop the driving clock, they would use it more than the current provision. TruckerNation stated that it is difficult to predict how drivers would use the proposed split. They believe, however, that most drivers would choose to split their sleeper berth time as long as the provision allows them to stop the 14-hour clock and the time is cumulative rather than consecutive.

FMCSA Response: FMCSA cannot accurately predict how the proposed changes would affect the use of the provision. First, while FMCSA received some information regarding how often some drivers use the current provisions and how usage might change under the new provision, the Agency lacks the definitive information that would be needed to estimate usage among the entire population of drivers. Furthermore, FMCSA lacks data on the number of trucks that are equipped with sleeper berths and the impact that schedule changes might have on motor carrier operations. Therefore, FMCSA did not evaluate the impacts of schedule changes that may occur because of this final rule.

Schedule and Planning Changes. OOIDA and ATA both commented that the proposed sleeper berth provision would give drivers greater ability to avoid rush hour traffic. TruckerNation stated that this provision would allow drivers or motor carriers to plan and schedule drive time during non-peak hours to avoid conditions such as traffic, weather, and scheduled road closures. In addition, OOIDA stated that these changes would reduce wear on vehicles and improve fuel efficiency as drivers would feel less pressure to drive at times when they were tired and not driving as safely or efficiently. ATA also added that these changes will allow drivers to more effectively plan their sleep and other breaks around loading times, thus increasing the efficiency of their work hours.

FMCSA Response: FMCSA requested information on how changes to the sleeper berth provision would change the scheduling and planning of drivers to determine if the rule would have the intended effect of allowing drivers to operate more efficiently. For example, FMCSA believes that these changes will increase the ability of drivers to take rest periods when they can find a safe place to park, to schedule drive time during non-peak hours, and to avoid conditions

[54] Sieber, K.W., Robinson, C.F., Birdsey, J., Chen, G.X., Hitchcock, E.M., Lincoln, J.E., Akinori, N., & Sweeney, M.H., 2014. ''Obesity and Other Risk Factors: The National Survey of U.S. Long-Haul Truck Driver Health and Injury,'' American Journal of Industrial Medicine, 57, 615–626. Available at: *https://www.ncbi.nlm.nih.gov/pubmed/24390804.* Last accessed January 4, 2019.

[55] Maislin, G., Rogers, N.L., Price, N.J., Mullington, J.M., Szuba, M.P., Van Dongen, H.P.A., and Dinges, D., 2001. ''Response Surface Modeling of the Effects of Chronic Sleep Restriction With and Without Diurnal Naps,''—Report. Available in the docket for this rulemaking.

such as traffic, weather, and road closures. These changes ensure that drivers using the sleeper berth to obtain the minimum off-duty time have at least one consolidated rest period of a sufficient length to have restorative benefits. In addition, these changes afford drivers the flexibility needed to make decisions regarding their rest that best fits their individual needs.

FMCSA agrees with commenters who indicated that this final rule will lead to more efficient use of time. However, the comments also highlighted how the impact will vary for each motor carrier and type of operation.

Sleep Changes Between 7- and 8-hour Periods. FMCSA asked, if the proposal was adopted, would you expect to get the same amount of sleep in the 7-hour period as in the current 8-hour period?

OOIDA commented that increased flexibility would improve driver sleep quality. TruckerNation stated that research shows that drivers average little more than 6 consecutive hours of sleep, thus 6, 7, or 8 hours would ensure adequate and restorative sleep. Individual drivers differed as to whether they would get the same amount of sleep in a 7-hour period as an 8-hour period.

Advocates argued that research has proven that drivers, when given extended off-duty periods, tend to obtain additional sleep. Therefore, Advocates noted, shortening the allowable rest period will enable and encourage the use of the shortest time possible when it is advantageous for the carrier.

Truckers for a Cause argued that drivers will get less sleep in a 7-hour split, but also requested that a pilot study be conducted to examine this issue.

FMCSA Response: The Agency agrees that drivers average little more than 6 consecutive hours of sleep. The NPRM cites several studies (Hanowski 2007, Van Dongen 2013, Dinges 2017, Sieber 2014) which found that:

- Drivers were getting an average of 6.15 hours of sleep per 24-hour period.
- Drivers obtained between 6.0 and 6.2 hours of sleep (on average) per 24 hours during duty cycles.
- Drivers obtained, on average, approximately 6.5 hours of sleep per day during duty periods.
- 26.5 percent of long-haul truck drivers reported that they slept 6 hours or less per night, compared to 30.0 percent of the general working population.

Based on this research, the Agency agrees that drivers would likely get the same amount of sleep in a 7-hour period as an 8-hour period and rejects the conclusion that a shorter allowable rest period would enable and encourage less sleep.

Impact of the Sleeper Berth Proposal on VMT. FMCSA requested comment on whether the changes to the sleeper berth provision would result in increases in VMT and would enable drivers to complete additional runs.

Commenters were split on the likely impacts of these changes. A carrier and an industry association said that the proposed changes would not result in any increases in VMT or hours worked, and would not result in drivers completing additional runs. In contrast, some individual drivers noted that they would likely increase their VMT in response to these changes. Similarly, EROAD noted survey results showing that drivers would increase their VMT and complete more runs due to the increased flexibility of the sleeper berth requirements. Also, as noted by the National Propane Gas Association, the impacts of the rule on VMT could vary by region.

Other commenters noted that the benefits of the proposed changes do not necessarily take the form of increases in VMT or work hours, but in an increased ability of drivers to plan their work and off-duty periods. For example, TruckerNation stated that the primary benefit of these changes would be to allow a driver to better maximize the use of their full 24-hour day.

FMCSA Response: FMCSA agrees that driver mileage may vary in each shift or week. In terms of net impacts of the changes to VMT, driving hours, and work schedules, it is important to remember that the changes adopted in this final rule will not affect the volume of freight shipped or aggregate VMT. While these and other changes to the HOS rules may shift freight loads between drivers and carriers, those changes are not expected to affect the total economic demand for the movement of freight. Therefore, FMCSA did not estimate a change in VMT resulting under this final rule.

Comments Suggesting the Agency Conduct a Sleeper Berth Pilot Program. The U.S. Chamber of Commerce supported added flexibility but said that such changes should be made only after a pilot study had validated the proposals. Similarly, CVSA and Schneider National Carriers, Inc. commented that the proposed rule should not be implemented until a pilot study has been concluded.

ATA and other commenters also supported a pilot program to examine the efficacy of 5/5 and 6/4 sleep splits. The Truckload Carriers Association expressed regret that FMCSA requested information that probably does not exist after deciding against conducting a sleeper berth pilot study that could have produced the information.

FMCSA Response: As indicated in the NPRM, FMCSA had planned to conduct a pilot project to collect data on the safety of drivers who split their sleeper berth time in a variety of ways. However, given comments received by the Agency in response to the ANPRM as well as at public listening sessions, and the results of a literature search conducted in advance of the NPRM, the Agency determined there was sufficient data to support the modifications proposed in the NPRM and adopted in this final rule. Not counting the shorter break against the 14-hour driving window will allow drivers additional flexibility in obtaining rest. However, the Agency does not feel it currently has adequate data to support an extension of the sleeper berth split to 6/4 or 5/5.

No research or data has been provided that would counteract the position posed by FMCSA in the NPRM. Therefore, the Agency reaffirms its position that allowing an expanded split sleeper berth option would provide a sufficient period of consolidated sleep for drivers and would not be detrimental to driver safety.

Other Comments or Questions. Approximately 120 commenters, mostly individuals and drivers, provided statements regarding sleeper berth splits that were mixed, neutral, or unclear in their intent regarding the sleeper berth provision. These comments mostly discussed the split sleeper berth provisions as they related to out-of-scope topics, like parking or State preemption relating to breaks.

7. Split-Duty Period (3-Hour Pause)

NPRM. FMCSA proposed that a single off-duty break of between 30 minutes to no more than 3 consecutive hours, be excluded from the 14-hour driving window, provided the driver has at least 10 consecutive hours off-duty before the start of his or her next duty period. A single pause of up to 3 hours would provide significantly more flexibility than allowed under the current rules. It would have allowed drivers to take an off-duty break without fear of exhausting their available hours under the 14-hour clock, which would also have allowed them to get additional rest or avoid traffic congestion.

The Agency encouraged motor carriers and other stakeholders to submit driver record data supporting their comments in a manner that did not reveal the identity of an individual driver. FMCSA sought additional information and data on the impacts of

the split-duty period provision, in part to assess its potential costs and benefits. FMCSA also sought additional information on whether drivers should be allowed to divide the pause, up to a total of 3 hours. Responses to these questions are discussed in the comment summaries below.

Comments in Favor of a Split Duty Option. Approximately 280 commenters supported the proposed pause to the 14-hour driving window. Many of these commenters, mostly individuals and drivers, simply noted their support. Others gave the following reasons for supporting this provision:

- Provides flexibility for drivers to take a break when needed.
- Greatly improves performance, productivity, and safety by preventing drivers from feeling compelled to keep driving to complete a trip if they feel fatigued.
- Compensates for time lost, and provides an opportunity to rest, while waiting during loading and unloading, rather than placing stress on drivers to rush to make up for lost time.
- Enables drivers to avoid rush hour traffic periods in major urban areas.
- Enables drivers to stop and rest while still ensuring they will be able to make it home at night.
- Avoids congestion and other unsafe conditions.
- Mitigates driver stress and fatigue.

OOIDA supported the proposal and recommended several actions FMCSA could take to ensure that the split-duty provision does not exacerbate detention times currently experienced by drivers.

FMCSA Response: The Agency agrees with commenters and continues to believe the split duty proposal could provide significant flexibility for drivers and provide an incentive to take an extended rest break. The current 14-hour window disincentivizes drivers from voluntarily taking rest breaks because those breaks do not pause the 14-hour clock. Consequently, all the time a driver spends in an off-duty status reduces the amount of time available to complete up to 11 hours of driving time during the work shift.

Therefore, drivers who take additional breaks may feel compelled to speed in order to complete their driving within the 14-hour window.

With regard to safety impacts, the Agency notes the additional break of up to 3 consecutive hours would be off-duty. This means the extension of the driving window would not result in drivers working additional hours; the maximum amount of on-duty time that could be accumulated before a driver would be prohibited from driving during a work shift would remain at 14 hours. Furthermore, drivers would still be required to have 10 consecutive hours off-duty at the end of the work shift.

Although the Agency's analysis indicates the additional flexibility could be provided without adversely impacting safety, the analysis did not take into account the driver protection issues raised by commenters opposed to the 3-hour pause. These issues are of such concern that the Agency has not included the 3-hour pause in this final rule.

Commenters Opposed to the Split Duty Proposal. Approximately 150 commenters opposed the NPRM's split-duty period because it went too far. Drivers and other individual commenters argued that:

- The pause creates a 17-hour driving window, which is unwanted and unsafe.
- The pause could be abused, enabling companies to take advantage of drivers.
- The pause adds 3 unpaid hours to a truck driver's day.

Multiple opponents provided additional explanations based on research data. Several motor carriers and a law enforcement agency expressed concern about the negative safety impact of an extended driver workday, potentially up to 17 hours. An individual commenter said a carrier or third party should not be allowed to impact a driver's schedule based on this provision.

The Trucking Alliance, Advocates, and others also opposed this change, stating that FMCSA does not have data on the possible safety implications of an extended workday. Others, including the AASM and IBT, opposed the provision, stating that there are no data to support the assumption that drivers would rest or sleep during the pause; that the proposal increases the risk of drowsy driving and accidents; and that allowing up to a 3-hour pause in the driving window does not necessarily translate to a decrease in driver fatigue levels.

Advocates offered a detailed discussion of the Blanco (2011) study and the examples provided by the Agency, and cited additional studies not mentioned in the NPRM. Advocates argued that the research does not support the proposal and that FMCSA had provided no analysis of applicable data to justify the split-duty proposal. Advocates opposed a pause of any length that would extend the driving window and allow driving later in the duty period. IIHS also opposed the pause and questioned the logic that increasing a driver's workday with off-duty time would have less impact on fatigue than adding the same amount of driving time.

Several commenters, including Senator Murray and CVSA, said FMCSA should consider how this change would interact with other changes proposed in the NPRM (*e.g.,* adverse driving conditions) and should set a maximum workday. These commenters stated that these possible interactions (''stacking'') would raise serious safety, health, and welfare concerns.

ATA provided extensive comment and survey results regarding the potential impact of the pause on driver sleep schedules and the possible safety impact of the proposal, and concluded that FMCSA should clarify the safety benefits of the proposed pause. ATA said that FMCSA should provide some estimate on how often, and for how long, drivers would use a ''pause,'' and whether that period would impact sleep cycles and relative measures of roadway safety. ATA also stated that some motor carriers worry that modifications to the 14-hour clock could increase their risk exposure, which, in turn, could affect insurance rates and motor carrier liabilities.

CVSA stated that, before finalizing the proposed changes, FMCSA needs to evaluate how these changes will impact broader flexibility that has already been granted to certain segments of the motor carrier industry through exceptions and guidance, and to ensure that the combination of changes does not negatively impact safety.

CVSA, Trucking Alliance, Road Safe America, IBT, TruckerNation, industry associations, and individual commenters highlighted the potential for abuse of this provision by shippers, receivers, brokers, or motor carriers. They argued that it could be used to coerce drivers into extending their workday and obscure the problem of unpaid detention time. Some commenters stated that drivers alone should be allowed to decide when this provision is used. Others, including CVSA, stated that drivers might use the provision for work-related activities rather than rest. ATA generally supported the flexibilities offered by the proposed split-duty period but pointed to mixed results generated by a survey it conducted in response to the NPRM. Specifically, ATA said some motor carriers responded positively to the proposed split-duty day, but others expressed varying degrees of hesitation regarding lack of supporting data or potential for abuse by shippers and receivers. In addition, ATA said many motor carriers want FMCSA to clarify how a split-duty period would impact

driver detention or ''dwell'' times and affect sleep cycles. EROAD also provided the results of its survey of trucking industry professionals and associations. The responses varied between support, requests for additional flexibility, and opposition due to the impact on driver fatigue and potential for abuse. ATA asserted that FMCSA had not undertaken a RIA on whether a flexible split-duty period would impact detention times and whether those impacts would result in net costs or benefits. ATA concluded that FMCSA should provide that data before adopting the proposal. Trucking Solutions Group stated that the proposed pause would be nothing but a ''band-aid'' to mask a widespread detention problem.

Other commenters expressed concern about how drivers would file complaints if they were coerced to use this provision. Many commenters mentioned the ''forced dispatch'' policies in place at some companies, under which drivers can be and are told by the carrier when to take split or pause breaks to meet the needs of customers. Other commenters raised concerns about the interaction of the pause with other regulations, exceptions, and Canadian regulations.

Commenters requested that the industry and law enforcement be given clear regulatory language and guidance to help interpret the pause and how it would interact with other regulations.

FMCSA Response: The Agency acknowledges commenters' concerns about the potential for unintended consequences associated with actions by employers, shippers and receivers that might be contrary to drivers' interests. Given the uncertainties as to whether these potential consequences would actually happen, the Agency has not included the 3-hour pause in this final rule.

The Agency is not persuaded by commenters' assertions that the pause, in and of itself, would reduce safety, but does agree that the issue warrants further study.

The FMCSRs have always treated off-duty time as an opportunity for driver rest, but that opportunity is enhanced if the CMV is equipped with a sleeper berth. That factor, combined with significant uncertainty about the frequency and extent of detention time, makes the evaluation of the cost and safety impact of a general 3-hour pause difficult, since day-cab drivers who are delayed at shipper or receiver facilities at non-ideal points in their circadian cycle might obtain less effective rest than sleeper-berth drivers, who always have a bed ready for use. The Agency believes that limiting an extension of the 14-hour driving window to the shorter period under the sleeper-berth exception, rather than applying it to all CMVs, will give drivers greater peace of mind and the rest that will enable them to operate safely later in the work shift, even if that off-duty period may sometimes occur at less-than-ideal times.

Comments Responding to FMCSA's Request for Research and Data.

FMCSA requested comments, research, and data on the optimal length of a pause that would allow drivers reasonable flexibility to manage operational variables while ensuring that driving does not occur after too much time has elapsed since the last longer rest period. While Advocates opposed a pause of any length, most commenters did not provide feedback on an optimal length of the pause, and instead requested that the Agency obtain additional data.

Some commenters who opposed the provision, including IIHS, recommended a pilot program to gather needed data relating to its impact on driver health and safety and on possible interactions with other proposed changes. Road Safe America stated that, before moving forward with the proposal, FMCSA should study the safety risks of permitting a 17-hour workday and its effect on cumulative fatigue, given that the NPRM included no limits on the use of the pause throughout the week.

Many other commenters, including motor carriers, supported the proposal but wanted further study on efficiency, the ELD environment, nocturnal driving and breaks, sleep cycles, and driver detention. In addition, some commenters that supported the proposal, including the U.S. Chamber of Commerce, requested that the Agency conduct a pilot program to understand the safety impacts of the split-duty provision before considering it further.

The NPRM asked a series of questions about the proposed pause:

(1) How will this provision impact the number of driving hours during a single driving window? How will this provision impact your total driving hours during a given week or year? Although some commenters stated that the provision would not change driving hours, others, including OOIDA, industry associations, and motor carriers, responded that the pause could reduce total driving hours by enabling drivers to operate more efficiently and flexibly, *e.g.,* to move when necessary and stop when tired or to avoid driving in some potentially challenging conditions.

Advocates warned that the pause would likely permit the scheduling of more driving hours in a single driving window, probably later in the duty period when crash risk from fatigue is greatest. Knight-Swift Transportation Holdings, Inc. stated that industry data collected in response to the NPRM shows that, in up to 3.8 percent of all workdays, the day would be extended by up to 3 additional hours and allow for up to 2 additional driving hours on average between the 14th and 17th hour of duty. An individual commenter said this provision would allow drivers to complete more driving hours during the week, but would then force them to take 34-hour restarts more frequently.

(2) How would this provision impact your regular schedule? How often would you expect to take advantage of this provision in a given work week? Why? OOIDA said its survey respondents believe that their operations would be more productive and less stressful if the 14-hour on-duty period offered additional flexibility, not only to avoid adverse driving conditions, but also to address other issues outside of their control. OOIDA said its survey respondents indicated that they would use the split-duty period an average of 2.55 times per week. American Moving and Storage Association said that its drivers would use the proposed split-duty period up to three times per week, and that carriers operating primarily within non-metropolitan areas, or running single loads, would likely use this proposal less often.

Industry associations said the overall impact would be minimal but would allow drivers to safely and compliantly complete their deliveries. Other commenters said the pause would be used infrequently, mainly for flexibility in cases of inclement weather, traffic interruptions, unexpected delays, and seasonal demand.

(3) What are the expected benefits from utilizing the 3-hour pause? OOIDA and other commenters said the pause would allow drivers to be better rested, to stay off the road during unsafe conditions, and to use their on-duty time more efficiently, resulting in improved highway safety, more completed trips, and fewer wasted hours. Several industry associations echoed this, arguing that the pause would promote safe operation, improve efficiency, and allow drivers to schedule work better and avoid unexpected and stressful conditions. Other commenters linked these benefits to driver retention, increased safety and decreased road congestion, additional capacity within the trucking industry (by allowing time spent being loaded or unloaded to be

used as off-duty time), more loaded miles for drivers, increased compensation, and less wasted fuel. Similarly, several industry associations supported the flexibility of the provision to permit drivers to make decisions on road condition safety, as well as to promote fatigue recovery and napping.

After presenting data relating to daily traffic speed fluctuations, off-duty breaks, and impacts on braking events and speeding, a technology company concluded that the pause would allow drivers to reclaim the time spent off-duty and traverse congested metropolitan areas at more efficient times.

A motor carrier stated that its drivers would likely use this provision to offset extended detention times, effectively allowing them to use more of their HOS on-duty time on the road instead of at the loading dock. An individual commenter said that the pause may enable a driver to return home sooner instead of taking a 10-hour off-duty or sleeper berth period.

American Moving and Storage Association said carriers that compensate their drivers by the hour would not see a direct labor cost benefit from this proposal, but that operations that pay per load weight or per mile may recapture lost efficiency. However, the commenter said the flexibility provided by the proposal would be expected to minimize idling fuel costs and reduce contractual payback penalties for late deliveries.

An individual commenter stated that this provision would be beneficial if its use is restricted to the avoidance of traffic congestion. However, because companies, shippers, and receivers could abuse this provision, the commenter said it would result in more drivers driving fatigued when they do not want to be driving.

Advocates expressed concern that the question failed to ask for details from research or to try to account for the cost of crashes caused using the 3-hour pause.

(4) Do you expect to use this provision to account for uncertainty such that trips could be finished on their scheduled completion day? How often do uncertain factors impact your schedule such that you are unable to complete a trip during the expected driving window and must delay delivery until after a 10 hour off-duty period? OOIDA responded that the provision would give drivers more flexibility to account for uncertainty during their workdays, which in many cases would help them finish trips on their scheduled completion days. TruckerNation remarked that the ''supreme benefit'' of the proposed split-duty provision is the fact that it accounts for uncertainty and results in loads getting to their destination as scheduled, rather than having drivers exhaust their 14 hours with miles yet to drive. Minnesota Trucking Association responded that its drivers would consider using this provision to react to unforeseen circumstances encountered during the trip. A motor carrier servicing railroads stated that, since unplanned events that block lines (*e.g.,* weather event or derailment) often occur outside of normal business hours, railroad contractors require flexibility to send drivers to the site with the equipment necessary to remove railcars and debris and restore service. Regarding uncertain impacts, a commenter said that traffic congestion occurs at least a couple of times a week.

Another commenter responded that it uses driver teams to account for uncertainty in its operations.

(5) Do you expect to be able to complete more trips due to this provision (i.e., schedule additional freight movement)? How many additional trips would you expect to plan during a given week or year? OOIDA said 58 percent of its survey respondents replied that they would not complete more trips due to this provision, and 42 percent said that they would be able to complete an average of 1.6 more trips per week. Several commenters, including a trade association, reported that they would not complete more trips due to this provision, or expect fewer trips.

(6) Would you expect to be able to use more of the 11 hours of drive time currently available due to the 3-hour pause? OOIDA and other industry associations responded they expect drivers would be able to use the 11 hours of drive time more efficiently with the option of a 3-hour pause. Schneider National Carriers, Inc. also said drivers are likely to use more of their 11-hour maximum drive time than they are using under the current rule, but did not have an estimate as to how much more of the maximum drive time would be used. However, Boyle Transportation responded that they would not be able to use their drive time more effectively.

(7) Do you expect this provision to impact drivers' sleep schedule? How so? (8) Will this provision allow for drivers to shift off their circadian rhythm more easily than under current rules? OOIDA responded that the provision would not allow drivers to shift off their circadian rhythms more easily than the current rule; rather, it would provide drivers more opportunities to rest when they feel tired. OOIDA further stated that 74 percent of its survey participants indicated that the provision would not impact their sleep schedule. Of those who expected an impact, 72 percent said that the impact would be positive because it would provide additional opportunities to rest as needed. Similarly, the Minnesota Trucking Association stated that its members anticipate this proposal could enhance safety by allowing a driver to take a rest period as needed or avoid high stress situations and traffic. This commenter added that the proposed rule would allow drivers to better manage their own fatigue levels but suggested that FMCSA consider how often a driver could safely use this extension.

The National Tank Truck Carriers also discussed how often the pause could be used, stating that its members have expressed concern over whether this proposed change would disrupt driver sleep patterns, and that FMCSA should monitor how frequently this option is used by drivers to determine to what extent, if any, drivers' sleep patterns are disrupted in a manner that negatively impacts safety. Another commenter said this provision would adversely impact drivers' sleep schedules because companies, shippers, and receivers would force drivers to take the pause to compensate for detention times, thus forcing drivers to drive fatigued.

The NSC provided studies indicating that lack of rest is associated with a higher likelihood of safety-critical mistakes and that the effects of lack of sleep can be exacerbated if they occur during circadian lows. Boyle Transportation stated that no new science or study has altered previous findings about humans' sleep cycles and requirements for sleep, and that the split-duty provision will eliminate any safety advantage by disrupting and extending the regular on/off cycle beyond 24 hours. This commenter concluded that the pause would subject drivers to a rotating sleep schedule since the 3 hours added to the workday would offset their circadian rhythm. Another commenter responded that the rule would allow drivers to shift their circadian rhythm and would lead to more fatigued driving. Another commenter also stated that the rule would allow drivers to shift their circadian rhythm and would create a 27-hour day.

(9) In a full year, would this provision lead to additional driving miles or driving time? OOIDA said this provision could lead to additional driving miles but not additional driving time and, in many cases, would likely decrease total

driving time. Boyle Transportation responded that the proposal would not lead to additional driving miles or time. The Minnesota Trucking Association said the proposal could increase both miles and time.

(10) How often would you take advantage of the full 3-hour pause as compared to shorter amount of times? Why? OOIDA responded that frequency of use would vary depending on the conditions that necessitated the pause. Similarly, the Minnesota Trucking Association said that use of the pause is difficult to estimate, as decisions would be made on a case-by-case basis by a driver.

Another commenter, presumably a driver, stated that, if left solely to the commenter's discretion, the provision would only be used to avoid traffic congestion and adverse weather. However, the commenter said the decision would not be left to the driver's discretion unless FMCSA implements stronger coercion rules and enforcement.

(11) How would you plan to use the off-duty time spent during the 3-hour pause? Would you use the time sleeping in a truck cab more often or other leisure activities more often? OOIDA stated that 27 percent of its survey respondents said they would use time sleeping in the cab, 6 percent said personal time, 55 percent said both sleep and personal time, and 12 percent responded with ''other.'' The Minnesota Trucking Association said the answer would depend on professional drivers managing their trip plan and productivity to determine what is safe.

(12) Do you anticipate any fatigue impacts on driving up to the 17th hour of a duty day? How would the up to 3-hour break impact that fatigue level? OOIDA stated that 79 percent of its survey respondents said they did not anticipate any fatigue impacts on driving up to the 17th hour of a duty day; rather, the split-duty break would lessen fatigue by providing drivers more time to rest, thus reducing stress and increasing vigilance. A motor carrier also expected reduced fatigue because drivers would be allowed to adhere more to their personal ''body clock.'' The Pipeline Contractors Association said its members would not suffer additional fatigue if they extend the driving window by taking a break.

Several industry associations pointed to research indicating that that drivers can safely work a 16-hour shift without significant degradation in performance, noting the research failed to consider the restorative impact of taking one or more off-duty rest breaks of between 30 minutes and 3 hours.

Some commenters argued that driving up to the 17th hour of a duty day would have fatigue impacts. Truckers for a Cause cited research and studies on how hours awake relate to fatigue impairment and stated that detention time at shipper facilities does not result in an opportunity for rest. The commenter concluded that, unless regulatory language provides reasonable assurance that a nap will be possible during a split or pause, the proposal would not result in safety equal to or better than that found under the current FMCSRs. Similarly, AASM stated there is no guarantee that a driver can or will sleep during a pause of up to 3 hours and that this prolonged wakefulness can occur during circadian ''low'' periods when performance is lowest, thus resulting in a higher risk of drowsy driving and motor vehicle accidents. Knight-Swift Transportation Holdings, Inc. said the proposal would create significant additional risk, in terms of VMT at the most vulnerable times in the driver's daily work shift (after the 14th hour on-duty), to accommodate a rather small percentage of drivers affected by the current and more rigid 14-hour limit.

Truckers for a Cause disagreed with drivers who cite the rule on ill or fatigued operators (§ 392.3) as providing adequate protections from forced dispatch that might result in excessive fatigue. The commenter said a driver being told to take a split or pause break when and where a carrier, shipper, or receiver wants, rather than when and where a driver chooses, would not be violation of the coercion rule unless new regulatory language is included in the final rule.

Advocates asserted that evidence shows that fatigue and crash risk increase with increasing length of day and the ''question incorrectly assumes that carriers and drivers' expectations regarding fatigue are a comparable substitute to research and scientific fact.''

Some commenters foresaw a potential fatigue impact but said this could be mitigated by the off-duty rest periods. An industry association suggested that FMCSA further study whether stopping the clock could be done daily without an increase in driver fatigue.

IBT reported that half of all its survey respondents indicated that fatigue levels would be negatively impacted by driving up to the 17th hour of a duty day. However, survey respondents indicated that having a 3-hour pause in the driving window would not equate to a decrease in fatigue levels, as off-duty pauses can be more fatiguing than being active.

(13) What operations would benefit from multiple off-duty periods totaling 3 hours? Many commenters, including an industry association, indicated that long-haul operations would benefit from multiple off-duty periods totaling 3 hours, or just multiple pauses. Similarly, the Minnesota Trucking Association said short-haul and local operations would be affected less, as these operations use a standard schedule for pickup and delivery.

OOIDA, the Minnesota Trucking Association, and Schneider National Holdings, Inc., however, did not support multiple pauses. The industry association said FMCSA should provide clear guidance regarding the potential use of multiple extensions in one workday and address concerns regarding potential circumvention of the HOS rules through the combination of multiple extensions in a single workday.

(14) Would this flexibility cause drivers to alter their daily behavior or increase productivity? If so, how? The Minnesota Trucking Association said allowing a driver to take a pause as needed would effectively manage fatigue, as well as improve driver lifestyle and work life overall.

(15) What would be the impact on fatigue with several smaller breaks compared to a single period of up to 3 hours? The AASM said multiple off-duty periods are less restful than a single, long opportunity to sleep; restorative sleep progresses through specific, well-organized stages that cannot be generated when sleep opportunities are short or timed against the natural circadian rhythm. Therefore, shorter off-duty periods would be expected to decrease total sleep time per 24 hours, impacting driver safety. This commenter also said shorter rest breaks mean that drivers will likely end up operating their vehicle during circadian low periods, which is a major risk for sleepiness-related crashes. Lastly, the commenter said the proposal would lead to more episodes of sleep inertia, which has been tied to accidents and near-miss events in operational environments.

The Minnesota Trucking Association responded that taking a break when a driver needs to can positively impact fatigue reduction and improve driver lifestyle, but this becomes more challenging from a reporting standpoint.

(16) If the 3-hour break were divided up into smaller increments, what would be the impact on enforcement when determining compliance? The Minnesota Trucking Association said dividing up the break into smaller segments would cause confusion with no increase in safety. Schneider said

multiple pauses could encourage drivers to inaccurately record on-duty time as off-duty time, make verification and enforcement of the rule more difficult, and overly complicate the rule.

(17) Would the added complexity of multiple pauses substantially add to the time needed for ELD vendors to reprogram ELD software? If so, how much additional time would be needed? The Minnesota Trucking Association anticipated that technology vendors would need adequate time to adjust to any new rule.

FMCSA Response: The Agency has decided not to implement the proposed pause in the 14-hour driving window at this time. FMCSA continues to believe that an opportunity for a single off-duty pause in the 14-hour driving window could provide flexibility for drivers without compromising safety, as explained in the NPRM. However, many commenters believe that drivers would be pressured by carriers, shippers, or receivers to use the break to cover detention time, which would not necessarily provide the driver an optimal environment for restorative rest. This suggests that the proposal could have unintended consequences that were not adequately evaluated in the development of the NPRM.

An off-duty break of up to three consecutive hours during a work shift would have enabled drivers to avoid congestion. The subsequent driving time would then be more productive as drivers may have a greater opportunity to travel at the posted speed limits rather than at lower speeds through heavy traffic and congestion. It may also reduce the pressure to drive above the posted speed limits because of concerns raised by the 14-hour clock. In addition, drivers could take a rest break to reduce the likelihood of experiencing fatigue while driving. Because drivers would continue to take 10 consecutive hours off-duty at the end of the work shift, exercising the pause option during the work shift would increase the driver's off-duty time during the work week.

This increased productivity, resulting from an ability to avoid congestion, would be accomplished without altering the maximum amount of on-duty time that could be accumulated before driving is prohibited, or increasing the maximum driving time allowed during a work shift. The maximum amount of time accumulated before the designated single off-duty pause and immediately following the off-duty pause could not exceed 14 hours, irrespective of the duty status recorded before and after the designated break. The driver would be prohibited from operating a CMV until there was a break of at least 10 consecutive hours, thereby starting a new work shift. And the total amount of driving time accumulated before the designated off-duty pause and immediately following the pause could not exceed 11 hours before the driver takes a break of 10 consecutive hours, thereby retaining the 11-hour limit on driving time during the work shift.

FMCSA acknowledges that the potential benefits of increased flexibility could be undermined if the pause is used by carriers, shippers, or receivers for purposes other than the productivity and safety of drivers, especially to compensate for time wasted during the 14-hour driving window due to increased detention time. Under such a scenario, the Agency believes it is unlikely that the off-duty period would provide a meaningful opportunity for drivers to rest. Drivers may have limited choices where the off-duty period would take place, especially if the CMV is not equipped with a sleeper berth.

For drivers operating sleeper berth-equipped CMVs, the Agency believes it is more likely that the driver would elect to use the split-sleeper berth option adopted through this final rule rather than the pause of up to three consecutive hours. With the sleeper berth option the driver would be required to spend only seven consecutive hours in the sleeper berth to fulfill the HOS requirements rather than spending 10-consecutive hours off duty (or in the sleeper berth). The split sleeper berth option would allow the individual to resume CMV driving three hours sooner and thereby increase the likelihood of meeting scheduling demands. Therefore, there is an inherent incentive for drivers of sleeper berth-equipped CMVs to use the sleeper berth rule instead of the pause.

Because the drivers most likely to use the pause are individuals who do not have the option of using a sleeper berth, the Agency is particularly mindful of commenters' views about the potential for unintended consequences. The Agency is concerned about the need to ensure that drivers are not forced into situations where the break fails to provide meaningful rest. If an individual operating a CMV that is not equipped with a sleeper berth is pressured into using the pause at a time and location the driver finds inappropriate, the driver's options for a comfortable or suitable resting location are likely to be limited. If there is no lounge or similar location where the driver can relax in a comfortable seat or recliner, take a nap, read a book, or have access to multi-media entertainment, the value of the off-duty pause is diminished. This is especially the case if the driver's preferences about the timing and location of the break are not part of the equation.

Additionally, although this final rule makes modifications, the split sleeper berth provisions are already well-established, whereas the pause was a wholly new proposal. Due to its established use, FMCSA does not believe the sleeper berth changes are likely to affect current industry practices, as both breaks are required (so a driver's break is not a question of ''if'', but only ''when'') compared to the proposed new voluntary pause, when a driver could be pressured into a break that she is never ''required'' to take.

Given the uncertainty about the amount and quality of rest drivers could obtain under the circumstances described above, previous research about the safety risks of driving later in the work shift becomes more relevant because drivers would indeed be operating within a 17-hour window during which there may be minimal opportunity to get meaningful rest. For drivers of sleeper berth-equipped vehicles, concerns about where the driver could rest are not as significant, because these individuals already have experience using sleeper berths while the CMV is parked at various locations, including shipper and receiver facilities, and under various conditions (*e.g.,* noise levels and weather conditions). Given the uncertainty about the amount and quality of rest drivers could obtain under certain circumstances, previous research about the safety risks of driving later in the work shift become more relevant because drivers would indeed be operating with a 17-hour window during which there is minimal opportunity to get meaningful rest. For drivers of sleeper berth-equipped vehicles, concerns about where the driver could rest are not as significant because these individuals already have experience using sleeper berths while the CMV is parked at various locations, including shipper and receiver facilities, and under various conditions (*e.g.,* noise levels and weather conditions).

As stated above, some commenters suggested the pause would be helpful but only if the regulatory text included language giving drivers exclusive discretion over its use. While this approach might address some of the concerns expressed above, the Agency believes enforcement of drivers' rights in this matter would be difficult at best. Based on the commenters' concerns about the ways in which drivers may be compelled by their employers, shippers, and receivers to extend their days involuntarily, the Agency believes it is unclear whether the off-duty period

would provide a meaningful opportunity for drivers to rest. There would be challenges documenting the circumstances surrounding drivers' schedules. It would be complicated to demonstrate whether taking the break was a reasonable expectation that a supervisor would have, given a specific driver's schedule at that moment, or whether the break represented an employer's imposition on the driver through unplanned and abrupt changes to the schedule.

This final rule gives drivers with a sleeper berth additional flexibility when operating under the split sleeper berth cycle. Further, FMCSA anticipates that drivers of sleeper berth equipped trucks would likely have opted to use the sleeper berth exception rather than the pause in any case.

Based on the reasons discussed above, the Agency believes the split-duty option should be deferred until additional data can be collected on how it would be used and who would determine its use.

Comments About Petitions for Rulemaking Previously Submitted to FMCSA.

A few commenters, mostly individuals and drivers, endorsed the changes for increased flexibility proposed by OOIDA. However, the American Fuel and Petrochemical Manufacturers argued that FMCSA should delay the adoption of the OOIDA petition and not finalize the split-duty provision due to the lack of scientific data.

CVSA suggested that FMCSA grant its petition to set a maximum distance that the personal conveyance provision may be used under the final rule. CVSA argued that the current guidance for personal conveyance allows drivers to drive several hours, possibly increasing fatigue and risking safety.

Advocates agreed with FMCSA's denials of the TruckerNation, USTA, and UDA petitions, because they would allow drivers to operate for long periods without a sufficient sleep period.

FMCSA Response: The normal Agency process for handling petitions for rulemaking is set forth in 49 CFR part 389, subpart B—Procedures for Adoption of Rules. FMCSA declines to discuss CVSA's petition on personal conveyance, originally filed on December 17, 2018, as the Agency will issue a separate decision on this matter pursuant to part 389 rulemaking procedures. OOIDA petitioned FMCSA to allow property-carrying CMV drivers to take a single off-duty rest break for up to 3 consecutive hours once per 14-hour driving window. That rest break would pause the 14-hour clock for the duration for the break. As explained in greater detail above, the Agency has decided not to adopt that proposal.

Comments About the Compliance Date for the Final Rule.

OOIDA and the Intermodal Association of North America (IANA) recommended that the proposed rule go into effect as soon as possible, stating that it would improve highway safety.

The National Propane Gas Association and Keep Truckin, Inc. recommended a compliance date less than 6 months after the effective date, regardless of ELD concerns. Wright Knox Motor Carrier, Inc. commented that it could comply within 6 months. The Pipeline Contractors Association recommended a compliance period of 6 months, stating that such a timeframe would result in cost savings to it members and customers.

ATA recommended that FMCSA collaborate with CVSA and ELD vendors to arrive at a single compliance date (rather than phasing in the rule). CVSA likewise recommended a single compliance date rather than a phase-in and recommended that FMCSA consult with ELD manufacturers. Conversely, industry associations recommended that a 6-month phase-in be adopted.

EROAD said that a compliance date of at least 6 months would be necessary to accommodate ELD manufacturers, and provided a breakdown of the time and methodology needed for discrete tasks. The Trucker Alliance and Trimble Transportation Mobility recommended a compliance date of at least 9 months after adoption of the rule to accommodate ELD providers. The National Association of Manufacturers and Garmin International recommended a 12-month compliance date. TruckerNation argued that extensive ELD software updates by manufacturers would be necessary to ensure compliance with the final rule. Schneider National Holdings, Inc. recommended a compliance date 12 to 18 months after the proposed rule's implementation.

The USTA requested a ''soft'' enforcement period to accommodate affected parties' learning curves. One driver asked if the ''Big Road'' app would be uploaded with the pause button and if the proposed rule would go into effect immediately.

FMCSA Response: FMCSA believes that the proposed changes will be positive for the industry, and that an early compliance date would be ideal, as suggested by the OOIDA comments. However, there are other factors to consider.

Many commenters, particularly those from ELD manufacturers, believe a longer compliance period should be considered, allowing them time to program changes consistent with this final rule. Although some aspects of the final rule theoretically could have a shorter effective date, FMCSA agrees with the commenters suggesting that a single date is needed to minimize confusion. With the elimination of the pause provision and market pressure from motor carriers, FMCSA believes the timeline for reprogramming ELDs can be shorter than reflected in the comments.

Considering these facts, FMCSA believes that a 120-day effective date without a delayed compliance period is appropriate.

Comments About Economic Issues.

The Small Business Administration (SBA) recommended that FMCSA consider the impact of the proposed rule on small businesses, and especially those raised in Regional Regulatory Reform Roundtables. These included complaints about ELD requirements and requests for relief from HOS requirements that are impracticable because of the lack of sufficient safe stopping locations for drivers.

Advocates asserted that FMCSA failed to provide any relevant, meaningful analysis or evidence to support the conclusion that the proposed rule had potential cost benefits. Advocates said that FMCSA ''cites several benefits related to dealing with congestion and detention times which are factors not necessarily aligned with fatigue and rest needs of drivers.'' Advocates also stated that suggesting that the proposal will benefit drivers by increasing flexibility to rest when tired fails to acknowledge that breaks will likely be taken in response to logistical concerns and not in terms of fatigue. Advocates concluded that the proposed rule may very well lead to reduced consolidated sleep, schedule changes to fit carrier interests over driver fatigue and health, weakened public safety, and other detrimental costs of long working and driving hours.

Schneider National Holdings, Inc. commented that the proposed rule's cost analysis failed to consider compliance costs associated with training law enforcement and drivers, comparing this against the 2005 rule.

Institute for Policy Integrity commented that FMCSA failed to consider a sufficiently broad range of alternatives, faulting the overly-narrow goal of increasing flexibility.

FMCSA Response: The specific impacts mentioned by the SBA Office of Advocacy's Regional Regulatory Reform Roundtables include complaints about ELD requirements and inadequate

parking spaces. Measures to address concerns about ELD requirements or CMV parking are outside of the scope of this rulemaking.

As for the commenter that said FMCSA failed to consider carrier compliance and law enforcement training costs, it should be noted that training costs for new entrants are included in the costs estimated for the Entry-level Driver Training rule,[56] so it would be double-counting to include those costs in the analysis for this rule.

FMCSA added costs for law enforcement training in the RIA for this final rule. The Agency notes that existing funds allocated through the MCSAP are used for law enforcement training and can be used to cover State law enforcement training costs. Training costs for new inspectors would be covered by the costs allocated for existing training requirements, and would not be attributable to this final rule.

As for the suggestion that that the Agency failed to consider a sufficiently broad range of alternatives, FMCSA notes that its approach to regulatory alternatives was based on the guidance provided by the Office of Management and Budget (OMB) in Circular A–4 (''Regulatory Analysis: A Primer.'') Circular A–4 suggests that agencies consider the preferred option and at least one alternative that is less stringent and one alternative that is more stringent. Because the HOS rule is comprised of separate provisions that affect different aspects of HOS compliance, FMCSA considered alternatives to each individual provision and followed OMB's guidance to consider more and less stringent alternatives to the Agency's preferred option.

Comments About the HOS Exception for the Transportation of Agricultural Commodities.

An industry association emphasized the importance of the agricultural commodity exception noted in the ANPRM. However, the association asked the Agency to include additional livestock commodities, such as animal feed and feed ingredients, and other agricultural products sensitive to temperature. The National Ready Mixed Concrete Association compared the time sensitivity of concrete to the agricultural exceptions and definitions.

FMCSA Response: The HOS exception for the transportation of agricultural commodities and farm supplies in § 395.1(k) reads as follows:

''(k) Agricultural operations. The provisions of this part shall not apply during planting and harvesting periods, as determined by each State, to drivers transporting

(1) Agricultural commodities from the source of the agricultural commodities to a location within a 150 air-mile radius from the source;

(2) Farm supplies for agricultural purposes from a wholesale or retail distribution point of the farm supplies to a farm or other location where the farm supplies are intended to be used within a 150 air-mile radius from the distribution point; or

(3) Farm supplies for agricultural purposes from a wholesale distribution point of the farm supplies to a retail distribution point of the farm supplies within a 150 air-mile radius from the wholesale distribution point.''

This exception is statutory and was most recently amended in Section 32101(d) of the Moving Ahead for Progress in the 21st Century Act, which extended the radius of the HOS exception from 100 air-miles to 150 air-miles from the source (Pub. L. 112–141, 126 Stat. 405, 778, July 6, 2012). Section 12104 of the Agriculture Improvement Act of 2018 (Pub. L. 115–334, 132 Stat. 4490, 4942, Dec. 20, 2018) also amended the definition of ''livestock.'' Those transporting agricultural commodities and livestock meeting the relevant definition can use this exception. This final rule does not address agricultural issues. On a separate rulemaking track, the Agency published an ANPRM seeking comment on the potential clarification of the definitions of ''agricultural commodities'' or ''livestock'' in section 395.1(k) (84 FR 36559, July 29, 2019). Any changes to the agricultural commodity definitions will be handled in that rulemaking, not in this final rule.

Comments on ELDs.

NTSB stated that a science-based safety evaluation of the current HOS regulations combined with the implementation of ELDs is needed before changes should be made to the rules. NTSB argued that this is necessary because FMCSA has failed to present any evidence that the proposed changes will improve highway safety or any evaluation of the potential combined effects of relaxing multiple aspects of the regulations simultaneously. NSC said FMCSA should support the use of ELDs and not make any changes to their required usage. The Transportation Intermediaries Association (TIA) asserted that the ELDs provide a large amount of real-time data which should be used to update the regulations to benefit the motor carrier industry.

FMCSA Response:

NTSB's comment emphasized the need for ''science-based evidence.'' Although ELDs could provide useful safety data, as TIA suggested, the Agency is required by statute to use such data ''only to enforce the Secretary's motor carrier safety and related regulations, including record-of-duty status regulations'' (49 U.S.C. 31137(e)(1)). In other words, FMCSA can use ELD data for enforcement purposes, but it may not use data collected directly from drivers' ELDs for broader statistical or research purposes. More broadly, as described throughout this document, the Agency believes that it is indeed using the best available ''science-based evidence'' in promulgating this final rule. To the extent a scientific result can be ascertained, fatigue science does not, by itself, dictate a policy outcome. Fatigue science simply provides information about the levels of fatigue that a person experiences under certain conditions. Congress recognized the need for balanced rulemaking by requiring the Agency to consider, among other things, the ''costs and benefits'' of proposed rules (49 U.S.C. 31136(c)(2)(A) and 31502(d)).

In the Agency's judgment, the elements of the NPRM that are adopted today make useful, but only incremental, changes to enhance operational flexibility. As discussed throughout the preamble, FMCSA believes that this final rule is safety-neutral.

With respect to ELDs, the revisions to the short-haul provision ensures that more deliveries within the expanded 14-hour workday will limit the amount of driving that can be done, and the maximum driving time remains limited to 11 hours; conversely, driving closer to the expanded 150 air-mile radius will limit the number of deliveries that can be made. Carriers and drivers will have more discretion in the number and geographic location of customers they can serve, while not exceeding the time limit.

Outreach and Training.

TruckerNation asserted that robust training, guidance documents, and operating policies should be developed to enable effective communication and collaboration with stakeholders and law enforcement officers at all levels.

FMCSA Response: As with all significant rulemakings, FMCSA has been working to develop a complete HOS implementation plan since the start of this rulemaking effort. This plan includes training and support tools for Federal and State enforcement personnel. As outreach and communication with the motor carrier

[56] 81 FR 88732, published December 8, 2016.

industry will be essential for an effective roll-out, the Agency has also developed a plan and corresponding materials that will be disseminated now that the final rule has been published.

Comments on Harmonization of U.S. and Canada, and Inconsistent State HOS Regulations.

A few commenters suggested reviewing and considering other HOS regulations, particularly those of Canada and Texas. An anonymous commenter noted that: ''In Canada, we are allowed 13 hours of total driving time and 14 hours of total on-duty time within a 16-hour daily clock. Additionally, to reset our daily 16-hour clock we only need 8 hours of continuous off-duty or sleeper berth time, however we are required to have 10 hours of total off-duty time within the daily 24-hour clock. The additional two hours of required off-duty time can consist of 30-minute increments of off-duty periods throughout the day.''

In responding to FMCSA's proposed 3-hour pause in the duty day, CVSA noted that ''the maximum work shift [in Canada] for a driver is 16 hours, rather than the U.S. 14-hour rule. Therefore, CVSA suggests that FMCSA consider 2 additional hours, as opposed to 3 hours, to align with the Canadian HOS requirements. The alignment would make it easier for the motor carrier industry to comply with the HOS regulations in both countries, streamlining operations for the entire transportation supply chain and would provide a uniform ELD solution for cross-border operations which would make it easier for roadside safety inspectors to enforce.''

An individual summarized the Texas HOS rules as ''No required 30-minute breaks. 12-hour drive time 15 hour on-duty time. 8-hour sleeper berth or off-duty. I believe this will help with fatigued drivers and allow drivers to drive when they feel comfortable and not when the log book says they have to go.'' One commenter who transports placardable quantities of hazardous materials complained that California allows only 10 hours of driving time for operations in intrastate commerce. He argued that all States should be required to adopt Federal HOS limits. ABA also commented in support of FMCSA rest break standards invalidating all State and local standards by field preemption, asserting the importance of uniformity in the transportation and shipping industries.

Other commenters, including drivers and industry associations, suggested adopting different HOS rules for major sectors of industry, such as team operations, oversized freight, and agricultural transportation, especially livestock.

Supporters of team operations generally favor splitting sleeper berth time into two 5-hour segments to allow drivers to trade places every few hours and keep the CMV moving. Oversized and overweight cargo is often transported on special vehicles that move slowly. The HOS limits can therefore create problems for these operations.

Agricultural interests that commented on the NPRM emphasized the perishability of livestock. The American Veterinary Medical Association stressed the need to avoid longer transit times, especially through mandatory stops when animals in crowded trailers can experience heat stress. The National Pork Producers Council (NPPC) generally supported the changes proposed in the NPRM, though it preferred a 6-hour, rather than a 7-hour, sleeper berth period. However, the NPPC also argued that the distinction between the 14-hour driving window and the 11-hour drive-time limit should be eliminated. ''Work is work, and if a driver can be on-duty then the driver should be free to continue driving if they feel comfortable.'' The NPPC argued that a 14-hour driving limit is consistent with rules in Canada and Australia, as well as the intrastate rules of California and Texas.

FMCSA Response: The commenters who suggested adopting Canadian HOS limits or the Texas rules applicable to intrastate commerce offered nothing beyond their opinion that these regulations are preferable to the Federal limits adopted today.

Motor carrier operations in Canada and the U.S. differ in important ways. While trip lengths may be comparable, traffic density in Canada is much less and weather conditions are more challenging. Longer Canadian driving limits and reduced off-duty times are geared to those operating conditions. In fact, Canada has special HOS regulations for its far northern regions that are not applicable to the rest of the country. (Similarly, the FMCSA has different HOS rules specific to Alaska, 49 CFR 395.1(h).) The Canadian rules appear to be every bit as complex as U.S. rules. Adopting some or part of them would entail a major re-training effort, not only for the clear majority of U.S. drivers unfamiliar with Canadian rules, but also for the State enforcement agencies that would have to revise their regulations and databases and then re-train all their officers. The CVSA suggestion to (partially) harmonize U.S. and Canadian rules by adopting a 16-hour driving window is not feasible, given FMCSA's decision not to go forward with a 3-hour pause in the driver's duty day. The NPRM did not propose to adopt any portion of the Canadian HOS rules, and the Agency therefore cannot do so as part of this rulemaking.

Both the Texas and California intrastate HOS rules cited by commenters are consistent with the variances from the FMCSRs allowed by § 350.341. In implementing the MCSAP in the late 1980s, the Federal Highway Administration, FMCSA's predecessor agency, allowed State regulations for intrastate operations to remain less than fully ''compatible'' with the FMCSRs, providing the States were making progress toward ''compatibility,'' *i.e.,* national uniformity. However, in 1991 Congress directed that these ''tolerance guidelines'' with their intrastate variances be made permanent.[57] Like most States, Texas has availed itself of the variances allowed by § 350.341 to adopt standards for intrastate commerce that are less stringent than the FMCSRs, but California's more stringent driving-time limit is also within its authority. The NPRM proposed no changes to the MCSAP variances and none are adopted today.

The Agency notes that industry representatives have occasionally stated that they believe the Agency follows a ''one-size-fits-all'' regulatory approach, even though the FMCSRs make special provision for a wide variety of motor carrier operations. Some of these provisions are based on statute, but many were adopted by the Agency to accommodate the needs of particular segments of the industry. The current rulemaking generated additional requests for segment-specific HOS rules. No such rules were proposed and none are adopted today. However, many of the requests have been addressed in other contexts or by other authorities.

Oversize and overweight cargo is often eligible for special State permits, some of which include time limits (*e.g.,* no nighttime operations). Although parking these combinations may be difficult, careful route planning can minimize, if not avoid, such problems. In any case, FMCSA has no authority to address parking shortages, and does not believe that extended driving hours are a reasonable solution to the problems inherent in moving unusual cargo.

Supporters of team operations often argue that drivers should be allowed to split their sleeper berth time into 5-hour segments, separated by 5-hour driving

[57] Intermodal Surface Transportation Efficiency Act of 1991, Public Law 102–240, 4002(l), 105 Stat. 1914, 2144, 1991.

stints. While such a rule would keep the vehicle on the road almost continuously, its implications for safety are far from ideal. Drivers' circadian rhythms would inevitably be scrambled as their 5-hour rest periods rotate around the clock. Even if 5-hour rest periods were theoretically as restorative as the sleeper berth option adopted today, obtaining quality rest in a moving vehicle is problematic. FMCSA is aware of no research demonstrating that splitting sleeper berth time into continually repeated 5-hour segments ensures adequate rest. This final rule therefore adopts the sleeper berth requirements proposed in the NPRM.

The transportation of livestock poses unique challenges, and consequently receives specialized treatment. Congress has exempted drivers hauling livestock from the required 30-minute break.[58] Drivers hauling livestock who qualify for the statutory ''covered farm vehicle'' exception in § 390.39 are completely exempt from the HOS rules and many other parts of the FMCSRs. The more limited statutory provision for the transportation of ''agricultural commodities'' in § 395.1(k)(1) exempts drivers from the HOS regulations while operating within a 150 air-mile radius of the ''source'' of livestock and other commodities. Even if animals are being transported a substantial distance, the exempt radius gives drivers about a 3-hour addition to the normal 11-hour driving limit. Finally, Congress has prohibited the use of Federal funds to enforce the ELD requirements against transporters of livestock.[59] The 14-hour driving limit proposed by the NPPC is far beyond the scope of this rulemaking and will not be addressed. In any case, longer hours are not the only solution to the transportation of animals. For example, livestock transporters seem to make little use of team drivers to address the problems they have identified.

VII. Discussion of the Final Rule

A. Short-Haul Operations

In this final rule, FMCSA adopts most of the changes proposed in the NPRM, including extending the maximum allowable workday for short-haul property- and passenger-carrying CMV drivers from 12 to 14 hours to correspond with the 14-hour period requirement for property drivers, and extending the existing distance restriction from 100 air-miles to 150 air-miles to be consistent with the distance limitation for short-haul drivers that are not required to possess a commercial driver's license.

Drivers and carriers using the short-haul exception are not required to use a RODS or ELD or take a 30-minute break. This extra time in the driving day has always been available to drivers, if they opted out of the short-haul exception. This change allows drivers to retain that status while receiving regulatory relief.

B. Adverse Driving Conditions

FMCSA adopts the proposed changes concerning the adverse driving exception. A driver who encounters adverse driving conditions is allowed up to a 16-hour driving window (for property carriers) within which to complete up to 13 hours of driving, or a 17-hour duty period (for passenger carriers) within which to complete up to 12 hours of driving.

In addition, FMCSA also modifies the definition of ''adverse driving conditions,'' to clarify the role of the driver in determining when such conditions are identified:

> Adverse driving conditions means snow, ice, sleet, fog, or other adverse weather conditions or unusual road or traffic conditions that were not known, or could not reasonably be known, to a driver immediately prior to beginning the duty day or immediately before beginning driving after a qualifying rest break or sleeper berth period, or to a motor carrier immediately prior to dispatching the driver.

This addition of the driver to the definition makes it clear that the driver should be involved in the decision-making, which should lessen the need for regulatory guidance to explain the role of the driver in determining when the conditions are identified. The changes to the other parts of the definition, including referring to the duty day, qualifying rest breaks, and sleeper berth period, simply update the definition and reflect the changes and updates to the HOS regulations, rather than using informal terminology (''the run''). The Agency declines to expand the circumstances covered by the definition.

C. 30-Minute Break

FMCSA adopts the proposed change linking the mandatory break to cumulative driving time rather than on-duty time, and allowing an on-duty-not-driving break of at least 30-minutes, to satisfy the requirement.

The Agency notes that many CMV drivers interrupt their driving time during normal business operations, such as loading or unloading a truck, completing paperwork, or stopping for fuel. Before this final rule, the break was required to be off-duty, during which no work, including paperwork, could be performed and was triggered after 8 hours, regardless of driving time. However, the changes to the 30-minute break provision do not increase the maximum driving time during the work shift or allow driving after the 14th hour from the beginning of the work shift.

The flexibility provided with this change will allow normal breaks from driving (*i.e.,* from ''time on task'' in the research literature) to satisfy the requirement, provided the break lasts at least 30 minutes.

D. Sleeper Berth

FMCSA adopts the proposal allowing a driver additional flexibility in taking two off-duty periods under the sleeper berth exception. One period must be at least 7 consecutive hours spent in the sleeper berth, paired with another period of at least 2 hours spent either in the berth or otherwise off-duty, if the two periods total at least 10 hours. When paired, neither qualifying period counts against the 14-hour driving window. (Prior to this final rule, the shorter period counted against the driving window.) Identical changes are made to a parallel provision applicable in the State of Alaska found in § 395.1(h).

E. Compliance Date for the Rulemaking

FMCSA believe that the flexibility provided by these changes will be beneficial to the motor carrier industry. A short effective date would therefore be ideal, however, there are other factors to consider. The Congressional Review Act (CRA) (5 U.S.C. chapter 8) requires a 60 day delay before a major rule, like this rule, can take effect. Additionally, the need for ELD manufacturers to update those systems that exceed the minimum requirements, and to train drivers and enforcement personnel must be considered.

FMCSA believes that an effective date 120 days after publication is appropriate, given the actions required for full implementation.

F. Appendix B to 49 CFR Part 385

Based upon this final rule, technical changes to the corresponding paragraphs listing acute and critical violations in *49 CFR part 385, Appendix B, VII. List of Acute and Critical Regulations* are made.

VIII. International Impacts

The FMCSRs, and any exceptions to the FMCSRs, apply only within the

[58] Sec. 5206(b)(1)(B)–(C), Fixing America's Surface Transportation Act, Public Law 114–94, 129 Stat. 1312, 1537, Dec. 4, 2015.

[59] Sec. 131 of Title I of Division H of the Further Consolidated Appropriations Act, 2020, signed on December 20, 2019.

United States (and, in some cases, United States Territories). Motor carriers and drivers are subject to the laws and regulations of the countries in which they operate, unless an international agreement states otherwise. Drivers and carriers should be aware of the regulatory differences among nations in which they operate. Canada- and Mexico-domiciled drivers must ensure compliance with U.S. HOS requirements while they are driving in the U.S.

A driver domiciled in the United States may comply with the Canadian hours of service regulations while driving in Canada. Upon re-entering the United States, however, the driver is subject to all the requirements of Part 395, including the 11- and 14-hour rules, and the 60- or 70-hour rules applicable to the previous 7 or 8 consecutive days. In other words, a driver who takes full advantage of Canadian requirements may have to stop driving for a time immediately after returning to the U.S. to restore compliance with Part 395. Despite its possible effect on decisions a U.S. driver must make while in Canada, this interpretation does not involve an exercise of extraterritorial jurisdiction (62 FR 16379, 16424; April 4, 1997).

IX. Section-by-Section Analysis

This rulemaking seeks to provide additional flexibility under the HOS rules in a manner that does not compromise safety. Specifically, it (1) modifies the definition of ''adverse driving conditions'' and extends a driver's driving window by up to two hours should adverse driving conditions be encountered; (2) expands the scope of the short-haul exception for drivers of property-carrying CMVs requiring a CDL and for passenger-carrying CMVs; (3) modifies the sleeper berth rule; and (4) amends the mandatory 30-minute break to give drivers subject to the rule less restrictive means of satisfying the requirement. Additional technical changes are made in this final rule. Changes to the regulatory text proposed in the NPRM are noted below.

A. Part 385—Safety Fitness Procedures

In Section VII of appendix B of part 385, the list of acute and critical violations, is modified to match changes made in part 395. Specifically, the references to § 395.1(h)(1)(i), (ii), (iii), and (iv) are modified to reflect the redesignations, and text addressing § 395.3(a)(3)(ii) is modified to reflect the substantive changes in the 30-minute rule. While the changes to this list were not included in the NPRM, their inclusion on the designation of acute and critical violations are distinctly technical in nature; they simply update the list for purposes of clarity and comprehension to reflect regulatory changes made elsewhere in the rule.

B. Part 395—Hours of Service of Drivers

1. Section 395.1 (Scope of Rules in This Part)

In subparagraph (b)(1), FMCSA modifies the exception for drivers of property- and passenger-carrying CMVs encountering adverse driving conditions, allowing them to extend their respective driving windows by a maximum of 2 hours, consistent with the long-standing provision governing the extension of driving time. Other changes in this subparagraph are merely technical or clarifying.

In subparagraph (e)(1), FMCSA modifies the short-haul exception for drivers operating either property-carrying or passenger-carrying CMVs, under which time records can be used in lieu of ELDs or RODS, and supporting documents need not be submitted to the motor carrier. This final rule extends the scope of this exception from a 100- to a 150-air-mile radius from the driver's normal work reporting location and extends the driver's maximum workday from 12 to 14 hours, a period consistent with the general rule governing the maximum driving window applicable to drivers operating property-carrying CMVs. All short-haul drivers remain subject to the existing limit on hours spent driving—11 hours for drivers of property-carrying CMVs requiring a CDL and 10 hours for drivers of passenger-carrying CMVs. Other changes in this subparagraph are merely technical or clarifying. For example, specific references to the 14-hour duty window for drivers of ''ready-mixed concrete delivery vehicles'' are eliminated, given the expansion of the duty day for all short-haul drivers to 14 hours. Provisions previously found in § 395.1(e)(1)(iv), duplicating provisions limiting drivers' hours under §§ 395.3 and 395.5, are eliminated as superfluous and to avoid redundancy.

In subparagraph (g)(1), FMCSA modifies the general sleeper berth exception for drivers of property-carrying CMVs who elect to use this exception. Specifically, the Agency replaces the requirement for 8 consecutive hours in the sleeper berth and 2 additional hours, either in the berth or off-duty, or some combination thereof, with a requirement for at least 7 (but less than 10) consecutive hours in the sleeper berth and at least 2 additional hours, either in the berth or off-duty or some combination thereof. However, the two periods must total at least 10 hours, equivalent to the 10 off-duty hours required of drivers who do not use sleeper berths. Neither period counts against the driver's 14-hour driving window. Other changes are clarifying or technical. For example, the provision authorizing a team driver to count time in the passenger seat while the CMV is moving toward his/her sleeper berth break is modified to allow up to 3 (rather than 2) hours in the passenger seat for consistency with the minimum hours required in the berth under this rule. Long-standing language omitted from the NPRM that required a driver using the sleeper berth exception to calculate available hours from the end of the initial break period, is restored in this final rule for clarity. Provisions previously found in paragraphs (g)(1)(i)(B) and (C) are eliminated as superfluous because these requirements are covered elsewhere in part 395. Finally, provisions in former § 395.1(g) specific to drivers of property-carrying CMVs operating in Alaska are removed and recodified in § 395.1(h)—addressing HOS requirements unique to that State.

In paragraph (h), FMCSA revises the HOS exception applicable to drivers of property-carrying CMVs in the State of Alaska. Provisions formerly found in § 395.1(g) specific to Alaska are recodified and consolidated in paragraphs (h), specifically in (h)(1)(ii) and (iii), including provisions addressing required off-duty periods and sleeper berth provisions. Provisions previously found in paragraph (g) that are eliminated because they are covered elsewhere are added here, given that CMV drivers in the State of Alaska are not covered by paragraphs § 395.3(a) and (b) (property-carrying CMVs) or § 395.5 (passenger-carrying CMVs). Although not proposed in the NPRM, language is also added to this paragraph to address how a driver using the sleeper berth exception calculates available hours from the end of the initial break period, consistent with provisions of paragraph (g). The changes are either technical or stylistic. For example, language proposed in the NPRM is modified to more closely track language in the current rules, and to make clear that, under § 395.1(h), neither rest period under the sleeper berth provision can exceed 10 hours. These changes are made for purposes of clarity; except as noted above, changes largely reflect language included in the NPRM.

2. Section 395.2 (Definitions)

FMCSA modifies the definition of ''adverse driving conditions,''

eliminating certain language addressing conditions already covered, and modifying the applicable standard to encompass conditions ''not known, or [that] could not reasonably be known'' to clarify when the definition applies. Furthermore, rather than focus solely on the knowledge of the dispatcher, the definition is modified to reflect knowledge of either the driver or the motor carrier at applicable points in time.[60] Additional clarifying changes were made. For example, the word ''immediately'' is added to clarify the point in time that the applicable conditions must be known and the reference to ''unusual road and traffic conditions'' is modified to read ''unusual road or traffic conditions'' to clarify either scenario would qualify.

FMCSA also modifies the definition of ''on-duty time'' by updating paragraph (4)(iii) of the definition to align with § 395.1(g)(1)(i)(D) in this final rule.

3. Section 395.3 (Maximum Driving Time for Property-Carrying Vehicles)

FMCSA revises paragraphs (a)(2) and (a)(3)(i) to remove superfluous language and make stylistic changes, respectively. No substantive change is intended. In paragraph (a)(3)(ii), the Agency modifies the 30-minute break requirement to focus on extended consecutive driving periods rather than a driver's time on-duty. Thus, a driver may not drive more than 8 hours without an interruption of at least 30 consecutive minutes. A driver may satisfy the 30-minute period by spending the time off-duty, on-duty (not driving), or in the sleeper berth, or any combination of these non-driving statuses. The specific reference to time in the sleeper berth is added for clarity. As before, drivers operating under the short-haul exception (§ 395.1(e)) are not subject to the 30-minute break requirement.

The Agency is not adopting the NPRM's proposal to extend the driver's 14-hour duty period by taking an off-duty break ranging from 30 minutes to 3 hours.

[60] In the NPRM, FMCSA posed a series of specific questions on the potential modification of the definition of ''adverse driving conditions,'' driven in large part by comments the Agency received to the ANPRM. Specifically, the Agency requested comment on whether the knowledge requirement ought to reside with the driver rather than dispatcher, whether the lack of knowledge at time of dispatch be eliminated, and whether the definition ought to encompass additional circumstances. *See* 84 FR at 44200, August 22, 2019.

X. Regulatory Analyses

A. E.O. 12866 (Regulatory Planning and Review and DOT Regulatory Policies and Procedures as Supplemented by E.O. 13563), and DOT Regulatory Policies and Procedures

The Office of Information and Regulatory Affairs has determined that this rulemaking is an economically significant regulatory action under E.O. 12866 [61] Regulatory Planning and Review, as supplemented by E.O. 13563.[62] It also is significant under DOT regulations because the economic costs and benefits of the rule exceed the $100 million annual threshold and because of the substantial Congressional and public interest concerning the HOS requirements (84 FR 71714, Dec. 27, 2019).

An RIA is available in the docket. That document:

- Identifies the problem targeted by this rulemaking, including a statement of the need for the action;
- Defines the scope and parameters of the analysis;
- Defines the baseline; and,
- Defines and evaluates the costs and benefits of the action.

The RIA is the synthesis of research conducted specific to current HOS practices, stakeholder comments, and analysis of the impacts resulting from changes to the HOS provisions in this final rule.

Affected Entities

The changes in this final rule will affect CMV drivers, motor carriers, and, except as otherwise exempt under § 390.3T(f)(2). The HOS regulations apply to CMV drivers. FMCSA obtained driver count information, by carrier operation, from the Motor Carrier Management Information System (MCMIS), which includes information submitted to FMCSA by motor carriers the first time the carrier applies for a DOT number, and biennially thereafter. Table 3 displays the 2018 estimate of CMV drivers from MCMIS. With the current baseline annual number of 6,520,268 CMV drivers (478,184 passenger carrier CMV drivers and 6,042,084 property carrier CMV drivers), FMCSA then estimated the future baseline number of CMV drivers who will be affected by this final rule annually during the analysis period of 2020 to 2029. These future baseline projections were developed by increasing the current baseline 2018 values consistent with occupation-specific employment growth projections obtained from the Bureau of Labor Statistics (BLS) Employment Projections program.[63] The BLS employment projections for the following standard occupational classifications were used:

BLS SOC 53–3021 (Bus drivers, transit and intercity)
BLS SOC 53–3022 (Bus drivers, school or special client)
BLS SOC 53–3032 (Heavy and tractor-trailer truck drivers)
BLS SOC 53–3023 (Light truck or delivery service drivers)

The occupational categories noted above do not overlap exactly with the entire population of CMV drivers who will be subject to this rule, primarily because there are some CMV drivers who operate vehicles over 10,001 pounds but do not specifically declare their occupation as being a bus or truck driver. However, as noted above, this does not mean that those drivers are not reflected in the baseline 2018 estimates of CMV drivers produced above. All CMV drivers, regardless of their occupational category, are included in the estimates. The occupational categories above represent approximately 3.6 million employees in 2018, and combined are used to forecast the future growth from 2018 through 2029 based on the BLS estimates of employees in those industries from 2018 through 2028.

BLS provides baseline 2018 values for the total number of employees in all of the occupational categories noted, as well as estimates for 2028. An annual compound growth rate for net overall growth in the total population of CMV bus drivers and CMV truck drivers was calculated from the growth in the number of employees in these occupations from 2018 to 2028 as projected by BLS. The projected net growth in total employment for BLS SOC 53–3021 (Bus drivers, transit and intercity) from 2018 to 2028 is 6.1 percent, which equates to a 0.598 percent annual compound growth rate. The projected net growth in total employment for BLS SOC 53–3022 (Bus drivers, school or special client) from 2018 to 2028 is 4.3 percent, which equates to a 0.426 percent annual compound growth rate. FMCSA then computed a weighted average annual compound bus driver growth rate of 0.472 percent for these two occupational categories. The projected net growth in

[61] Executive Order 12866 of September 30, 1993. Regulatory Planning and Review. (58 FR 51735, October 4, 1993).

[62] Executive Order 13563 of January 18, 2011. Improving Regulation and Regulatory Review. (76 FR 3821, January 21, 2011).

[63] U.S. DOL, BLS. Employment Projections Program. *Table 1.2: Employment by detailed occupation, 2016 and projected 2026.* Available at: *http://www.bls.gov/emp/ind-occ-matrix/occupation.xlsx,* last accessed October 29, 2018.

total employment for BLS SOC 53–3032 (heavy and tractor-trailer truck drivers) from 2018 to 2028 is 5.1 percent, which equates to a 0.498 percent annual compound growth rate. The projected net growth in total employment for BLS SOC 53–3033 (light truck or delivery service drivers) from 2018 to 2028 is 4.4 percent, which equates to a 0.429 percent annual compound growth rate. FMCSA then computed a weighted average annual compound truck driver growth rate of 0.474 percent for these two occupational categories. Beyond 2028, these annual compound growth rates were assumed to be the same out to the final year of the analysis period of 2029. FMCSA applies the weighted average annual compound growth rate to the population of CMV bus and truck drivers to estimate the affected driver population throughout the period of analysis, as shown in Table 3.

Due to exceptions and exemptions from the HOS regulations, the total CMV driver population must be broken down based on specific criteria to isolate the population that will be affected by each provision of this final rule. HOS regulations are dependent on the vehicle operated; for example, drivers of passenger-carrying vehicles must operate under regulations specific to those vehicles and drivers of non-passenger (*i.e.,* property) carrying vehicles must operate under regulations specific to those vehicles. For this reason, Table 3 provides the CMV driver count based on the type of operation (passenger vs. property) in column (B) and column (C). Column (D) is the total CMV driver count. Column (E) is a subset of the property carrier CMV drivers in column (C).

The potential cost savings gained by motor carriers under this final rule are in part a function of the estimated number of CMV drivers subject to the 30-minute break requirement. This rule refers to drivers affected by the 30-minute break requirement as CMV truck drivers. Those drivers operating passenger carrying vehicles are not subject to the 30-minute break requirement. For this reason, the driver counts in Column (E) are from carriers that do not identify themselves as passenger carriers. Second, those drivers operating under the short-haul exception are not subject to the 30-minute break requirement.

Previously, drivers could qualify for the HOS short-haul exception in § 395.1(e)(1) if they return to their normal work reporting location and are released from work within 12 hours after coming on-duty, can submit their work schedule via time cards, and operate within a 100 air-mile radius of their work reporting location. Under this final rule, drivers can qualify for the HOS short-haul exception provided they return to the normal work reporting location and are released from work within 14 hours after coming on-duty, can submit their work schedule via time cards, and operate within a 150 air-mile radius of their work reporting location. In the RIA for the NPRM, FMCSA did not estimate an increase in the number of drivers that would be eligible for the short-haul exception based on the alternatives presented but asked for comments on how the rule would affect the number of drivers operating under the exception.

In the ELD rule, FMCSA anticipated that all drivers employed by passenger and private non-passenger (*i.e.,* property) carriers qualifying for the short-haul exception would be able to take advantage of the exception.[64] Carriers report their driver employees to FMCSA based on whether they operate beyond or within a 100 air-mile radius. The number of drivers reported to operate within a 100 air-mile radius was used as a proxy estimate of drivers operating under the short-haul exception. This is not an exact count of drivers who operate under the short-haul exception because it does not include drivers that sometimes operate within 100 air-miles and on these occasions, operate as short-haul, and because it includes drivers who operate within 100 air-miles but may not return to their work reporting location within 12 hours. In preparation for the final rule, FMCSA reviewed the comments received and the short-haul exception requests to determine how the rule would affect the number of drivers operating under the short-haul exception.

With respect to the extension of the workday from 12 to 14 hours, FMCSA did not receive specific information on the increase in drivers that would be eligible for the short-haul exception. However, the approximately 10 exception requests relating to an extension of the time required to return to the work reporting location claim to cover between 100,000 and 150,000 drivers. FMCSA assumes that these drivers operate within 100 air-miles, but do not routinely return to their work reporting location within 12 hours. These drivers were included in the estimate of drivers eligible for, and assumed to be operating under, the short-haul exception. As such, FMCSA does not include a cost savings estimate resulting from this rule.

FMCSA has not received an exemption request that references the air-mile radius within which a driver may operate and still maintain eligibility for the short-haul exception. FMCSA did not receive data or information on the number of drivers that routinely operate between 100 and 150 air-miles, and will thus be newly covered by the short-haul exception. However, some commenters stated that they have drivers that routinely operate within 100 air-miles, but on occasion their operations require them to drive up to 150 air-miles from their work reporting location. These drivers are generally eligible for the short-haul exception, but must keep track of how often they operate beyond 100 air-miles. If this occurs more than 8 times in a 30-day period the driver would no longer be eligible, and would be subject to ELDs. This rule will remove the confusion and administrative hassle of estimating the number of times each driver has driven between 100 and 150 air-miles. It will not, necessarily, increase the number of drivers that are covered by the short-haul exception or decrease the number of ELDs in use. Therefore, FMCSA is not estimating an increase in the number of drivers operating under the short-haul exception for this rule and has determined that the carrier-reported information is a good proxy for the count of drivers who are eligible for, and will operate under, the short-haul exception.

In 2018, there were 1.4 million interstate non-passenger drivers and 1.7 million intrastate non-passenger drivers reported to operate solely within 100 air-miles. Lastly, CMV drivers in Alaska are not subject to the 30-minute break requirement. In 2018, there were approximately 19,000 drivers operating in Alaska. FMCSA estimated the CMV truck drivers currently subject to the 30-minute break requirement by subtracting from the total 6.4 million CMV drivers, the passenger carrier CMV drivers (478,184), the inter- and intrastate CMV truck driver employees that operate within a 100 air-mile radius (3.1 million), and the 19,000 CMV drivers in Alaska. In 2018, that total is 2.9 million CMV truck drivers subject to the 30-minute break requirement (Column (E) below).

[64] U.S.DOT, FMCSA. ''Regulatory Evaluation of Electronic Logging Devices and Hours of Service Supporting Documents Final Rule.'' November 2015. Presented in Table 10 on page 34 and discussed on page 33. Available at: *https://www.regulations.gov/document?D=FMCSA-2010-0167-2281* last accessed on: December 6, 2018.

TABLE 3—CMV DRIVER COUNTS

Year	Passenger carrier CMV drivers	Property carrier CMV drivers	Total CMV drivers	CMV drivers currently subject to the 30-minute break requirement
(A)	(B)	(C)	(D) = (B) + (C)	(E)
2018	478,184	6,042,084	6,520,268	2,944,705
2019	480,444	6,070,752	6,551,196	2,958,677
2020	482,714	6,099,556	6,582,270	2,972,715
2021	484,994	6,128,497	6,613,491	2,986,820
2022	487,286	6,157,575	6,644,860	3,000,991
2023	489,588	6,186,791	6,676,378	3,015,230
2024	491,901	6,216,145	6,708,046	3,029,536
2025	494,225	6,245,639	6,739,864	3,043,911
2026	496,560	6,275,273	6,771,833	3,058,353
2027	498,906	6,305,047	6,803,953	3,072,864
2028	501,263	6,334,963	6,836,226	3,087,444
2029	503,631	6,365,021	6,868,652	3,102,093

Summary of Costs

FMCSA evaluated the impacts expected to result from the changes in this final rule and anticipates that there will be no new regulatory costs or increases in existing regulatory costs for the regulated entities. The final rule will, however, improve efficiency by allowing drivers to shift their drive and work time to mitigate the effect of uncertain variables, resulting in a reduction in costs, or cost savings, to drivers and motor carriers. The Agency anticipates that the changes to each provision will result in cost savings, quantitatively estimates the motor carrier cost savings attributable to the 30-minute break provision, quantitatively estimates the training costs to the Federal Government attributable to the rule, and qualitatively assesses cost savings of the remaining impacts resulting from this final rule.

30-Minute Break

This final rule will allow on-duty, non-driving time to fulfill the 30-minute break requirement, as opposed to the current off-duty requirement. Also, the break will be required after 8 hours of driving rather than 8 hours of on-duty time. The final rule will thus reduce the number of drivers required to take a break (*i.e.,* those drivers whose schedules include on-duty breaks from driving will not be required to also take an off-duty break) and it also allows for flexibility in how drivers spend their time if they are not driving. The final rule will result in cost savings to carriers in the form of avoided losses in driver productivity.

FMCSA values the reduction in driver time spent in nonproductive activity as the opportunity cost to the motor carrier, which is represented by the now attainable profit, using three variables: driver hours available for labor (*i.e.,* those hours that are currently required to be off-duty, but could be on-duty but not-driving under the final rule), an estimate of a typical average motor carrier profit margin, and the marginal cost of operating a CMV. The estimation of driver hours stems from the populations of drivers who either (1) drive more than 8 hours in an average shift, (2) work more than 8 hours in an average shift but do not drive more than 8 hours, or (3) work less than 8 hours in an average shift. Drivers who fall into category (3) will be unaffected by the changes. Drivers who fall into category (2) will receive regulatory relief from the changes, estimated as regaining a full half hour per shift. Additionally, drivers who drive more than 8 hours (category 1), will also receive regulatory relief by the allowance of on-duty, non-driving time to meet the 30-minute break requirement, estimated as regaining half of the half hour break time (15 minutes) per shift. The Agency multiplied the time estimated to be regained by drivers per affected shift, the number of affected shifts, and the estimated driver population in each driver group to produce column (A) in Table 4.

As shown in Table 4, the estimate of cost savings is the product of the total hours saved by drivers (column A), and the estimated hourly profit for motor carriers (column B). FMCSA estimates the cost savings resulting from the changes to the 30-minute break provision to be $278.4 million (or a cost of −$278.4 million) on an annualized basis at a 3 percent discount rate, and $274.1 million (or a cost of −$274.1 million) on an annualized basis at a 7 percent discount rate.

TABLE 4—TOTAL AND ANNUALIZED MOTOR CARRIER COST SAVINGS DUE TO CHANGES IN BREAK PROVISION

[Millions of 2018$]

Year	CMV drivers currently subject to the 30-minute break requirement	Total hours saved	Profit per hour	Total cost savings—undiscounted	Total cost savings—3 percent discount rate	Total cost savings—7 percent discount rate
		(A)	(B)	(C = A × B)		
2020	2,972,715	27,376,449	$3.59	($98.3)	($95.4)	($91.8)
2021	2,986,820	82,502,528	3.59	(296.1)	(279.1)	(258.6)
2022	3,000,991	82,893,979	3.59	(297.5)	(272.3)	(242.9)
2023	3,015,230	83,287,288	3.59	(298.9)	(265.6)	(228.0)
2024	3,029,536	83,682,462	3.59	(300.3)	(259.1)	(214.1)
2025	3,043,911	84,079,512	3.59	(301.8)	(252.7)	(201.1)

TABLE 4—TOTAL AND ANNUALIZED MOTOR CARRIER COST SAVINGS DUE TO CHANGES IN BREAK PROVISION—Continued

[Millions of 2018$]

Year	CMV drivers currently subject to the 30-minute break requirement	Total hours saved (A)	Profit per hour (B)	Total cost savings—undiscounted (C = A × B)	Total cost savings—3 percent discount rate	Total cost savings—7 percent discount rate
2026	3,058,353	84,478,446	3.59	(303.2)	(246.5)	(188.8)
2027	3,072,864	84,879,272	3.59	(304.6)	(240.5)	(177.3)
2028	3,087,444	85,282,000	3.59	(306.1)	(234.6)	(166.5)
2029	3,102,093	85,686,640	3.59	(307.5)	(228.8)	(156.3)
Total 10-Year Cost Savings	(2,375)	($1,925)				
Total Annualized Cost Savings	(278.4)	(274.1)				

Notes:
[a] Total cost values may not equal the sum of the components due to rounding. (The totals shown in this column are the rounded sum of unrounded components.)
[b] Values shown in parentheses are negative values (i.e., less than zero) and represent a decrease in cost or a cost savings.

Time is a scarce resource, and FMCSA recognizes that forced off-duty time is not always the drivers' best alternative. Some commenters claimed that the rigid off-duty requirement forces drivers to rest when they are not tired and penalizes them for resting. Though the Agency does not necessarily agree with these commenters' characterization of the off-duty requirement, it is reasonable to assume that the current HOS regulations are imposing an opportunity cost on drivers that could be alleviated by providing drivers greater flexibility. In recent RIAs for non-HOS regulations, FMCSA has valued the opportunity cost of drivers' time using their wage rate. In other words, the increased flexibility provided by the final rule will result in a reduction in costs, or a cost savings, to drivers equal to the number of hours saved multiplied by the driver wage rate. The Agency did not account for the opportunity cost of the driver's time in the 2011 RIA, or in the 2019 NPRM, and for consistency does not monetize this component of the final rule's savings.

FMCSA considered eliminating the break requirement entirely. Drivers would still use off-duty time when needed or break-up the driving task using on-duty/non-driving time. Drivers in group 1 would likely regain 15 minutes of on-duty time, and drivers in group 2 would likely regain 30 minutes of on-duty time. As in the preferred alternative, FMCSA assumes that drivers in group 1 would only regain 15 minutes because they need personal time to eat, drink, etc. That time would continue to be off-duty regardless of eliminating the requirement. Elimination of the break requirement would seem to provide additional flexibility beyond the preferred alternative; however, it would not impact driver behavior relative to the preferred alternative, and thus would result in an equivalent motor carrier cost savings.

Sleeper Berth

Drivers qualifying for the previous HOS sleeper berth provision in § 395.1(g)(1)(i)(A) and (ii)(A) must, before driving, accumulate the equivalent of at least 10 consecutive hours off-duty. The equivalent refers to two periods that need not be consecutive: at least 8 but less than 10 consecutive hours in a sleeper berth, and a separate period of at least 2 hours either in the sleeper berth or off-duty, or any combination thereof. This final rule will continue to allow drivers using the sleeper berth to obtain their required off-duty time by taking fewer hours in the sleeper berth. However, drivers using this option will be required to obtain one rest period of at least 7 consecutive hours in the sleeper berth, paired with another period of at least 2 hours, such that at least 10 hours of off-duty time is achieved. Neither period will count against the 14-hour driving window.

The sleeper berth provision in this final rule allows for additional flexibility in a driver's duty day by (1) providing for an optional 1-hour reduction in the amount of time that drivers are required to spend in the sleeper berth, and (2) excluding both rest periods when calculating the 14-hour driving window. The Agency expects that carriers and drivers could realize efficiency gains by the reduction in time required to be in the sleeper berth and the exclusion of the shorter off-duty period in the calculation of the 14-hour driving window. A driver who used the previous sleeper berth provision today was required to include the shorter rest period in the calculation of the 14-hour window, resulting in an available 12 hours to complete up to 11 hours of driving. Under this final rule, drivers will be provided the ability to choose between split-rest options that will not reduce their available work time because the shorter rest period will be excluded from the calculation of the 14-hour driving window. The Agency, however, lacks data on the use of the previous sleeper berth provision, and the number of drivers that will use it under the final rule.

FMCSA received some information from commenters regarding how often some drivers use the current sleeper berth provisions and how usage might change under the new provision, with some expecting drivers to increase their usage and others expecting that the new provision will not be widely used. Despite the comments received on this issue, FMCSA still lacks definitive information that would be needed to estimate usage among the entire population of drivers. In addition, FMCSA also lacks data on the number of trucks that are equipped with sleeper berths and the impact that schedule changes might have on motor carrier operations. Therefore, FMCSA did not evaluate the impacts of schedule changes that may occur because of this final rule.

FMCSA also considered retaining the current split option of 8/2 but excluding the shorter rest period from the calculation of the 14-hour driving window. Excluding the shorter rest period from the calculation of the 14-hour driving window would result in the same per-trip cost savings estimated

for the preferred alternative but would limit the driver's flexibility. The preferred alternative will allow drivers to use a 7/3 split option, which provides flexibility for drivers to shift an additional hour of their off-duty time in the most optimal way for their current situation.

FMCSA also considered expanding the sleeper berth options to allow a 7/3 split, while continuing to count the shorter rest period in the calculation of the 14-hour driving window. Drivers making use of this alternative would then have an 11-hour window within which to drive 11 hours. This alternative provides a false sense of flexibility due to its impracticality, and would limit the use of the option to those drivers that don't anticipate reaching the maximum driving or work time. Additionally, it would eliminate the cost savings resulting from increased productivity discussed in the preferred alternative. This alternative does not meet the Agency objective of providing drivers the ability to take needed rest breaks while ensuring opportunity for an adequate rest period.

Short-Haul Operations

Previously, under § 395.1(e)(1), drivers did not have to prepare RODS or use an ELD if they met certain conditions, including a return to their work reporting location and release from work within 12 consecutive hours. Drivers operating under this provision were permitted a 12-hour workday in which to drive up to 11 hours (for passenger carriers, up to 10 hours) and the motor carrier was required to maintain time records reflecting certain information. Specifically, the motor carrier that employed the driver and utilized this exception was required to maintain and retain for a period of 6 months accurate and true time records showing: the time the driver reported for duty each day; the total number of hours the driver was on-duty each day; the time the driver was released from duty each day; and the total time for the preceding 7 days in accordance with § 395.8(j)(2) for drivers used for the first time or intermittently.

Under § 395.3(a)(2) and (3), other property-carrying CMV drivers not utilizing the short-haul exception have a 14-hour driving window in which to drive up to 11 total hours. Under § 395.5(a)(1) and (2), CMV drivers operating passenger-carrying CMVs can operate for up to 15 hours after coming on-duty. However, unless otherwise excepted, these drivers must maintain RODS, generally with an ELD. The drivers qualifying for the § 395.1(e)(1) exception previously had the option to use the 14- or 15-hour duty day in § 395.3 or § 395.5, but could choose not to use the option to avoid keeping RODS.

Additionally, drivers currently qualifying for previous HOS short-haul exception had to stay within 100 air-miles of their work reporting location. In this final rule, FMCSA extends that radius from 100 air-miles to 150 air-miles, consistent with the radius requirement for the other short-haul exceptions in § 395.1(e)(2).

In the ELD rule, FMCSA anticipated that all drivers employed by passenger and private non-passenger (*i.e.,* property) carriers qualifying for the short-haul exception would be able to take advantage of the exception. However, FMCSA received comments on the HOS ANPRM from carriers discussing their business practices and normal operating conditions, and how the lack of flexibility in the 12-hour workday limited their ability to take advantage of the short-haul exception. On many shifts, drivers returned to their work reporting location within 12 hours, but there are some occasions when drivers needed an additional 2 hours in their workday. This extra time beyond 12 hours could result from detention time, longer-than-expected customer service stops, traffic, or other unforeseen events. When this occurred more than 8 days in a 30-day period, the driver had to prepare daily RODS using an ELD as required by § 395.8 (a)(1)(iii)(A)(*1*). Due to the uncertainty surrounding the driver's eligibility at the beginning of the workday, the carrier could choose to have their driver operate as though he or she was not eligible for the short-haul exception. This resulted in unnecessary ELD expenses. One commenter on the HOS ANPRM estimated that the proposal would reduce the required ELDs for its heavy-duty service vehicles by 84 percent, resulting in annual cost savings of $1.5 million. While this comment is informative and suggests that this final rule will result in cost savings, FMCSA cannot extrapolate from one carrier's cost savings to determine the cost savings to all carriers. Thus, while FMCSA expects the final rule to result in cost savings for the affected entities, those impacts are not quantified.

The extension of the air-mile radius by 50 air-miles will afford drivers additional flexibility and allow carriers to reach customers farther from the work reporting location while maintaining eligibility for the short-haul exception. Extending the air-mile radius will not extend the driving time. FMCSA does not anticipate that extending the air-mile radius will increase market demand or result in an increase to aggregate VMT. Rather, more carriers might use the short-haul exception. Carriers will have the flexibility to meet market demands more efficiently while maintaining eligibility for the short-haul exception. One commenter on the HOS ANPRM explained that the increased flexibility in the air-mile radius would reduce the number of vehicles necessary for their operation, and thus would result in cost savings of approximately $1.7 million per year. Again, motor carriers are very diverse in their operating structures, and FMCSA cannot extrapolate from one carrier's cost savings to determine the cost savings to all carriers.

FMCSA asked for comments from the public on the cost savings that would be expected to result from not having to comply with the ELD requirements. Commenters noted that cost savings could range from $240 to $1,700 per truck, including the costs for purchase of the device, data maintenance, and technical support. Comments from industry associations stated that the cost saving would be at least $500 to $1,000 per truck, including costs for equipment, maintenance, repair, and back office administration. Another commenter stated that due to the diverse nature of the motor coach industry, some segments of the driver population would continue to need ELDs, and FMCSA agrees with this comment. FMCSA is unable to estimate the population of drivers under the short-haul exception that would continue to require ELDs, and FMCSA is thus unable to quantify the expected cost savings for the short-haul driver population that will no longer need ELDs under this final rule.

The Agency agrees with other commenters who stated that the proposed changes to the current short-haul provisions would provide increased flexibility for both motor carriers and drivers who utilize the exception. FMCSA believes that the extension of the 12-hour limit to 14 hours, and the 100 air-mile radius to 150 air-miles will provide motor carriers the necessary flexibility to spend quality time with customers, respond to changes in market demand such as peak holiday delivery times, and reduce the administrative burden of determining how often a driver has gone beyond 12 hours or 100 air-miles in any 30-consecutive day period. The changes to the short-haul exception will not extend the workday beyond the current long-haul driving window, thus FMCSA has no reason to believe that the rule would negatively impact safety.

FMCSA also considered limiting the proposal to an extension of the time required for drivers to return to their work reporting location from 12 to 14 hours, without changing the air-mile radius requirements. This alternative would decrease the population eligible for the short-haul exception relative to the preferred alternative by removing eligibility for those drivers operating between 100 and 150 air-miles. Decreasing the population affected by this final rule would decrease any cost savings resulting from it.

Adverse Driving Conditions

Under the previous regulations, drivers qualifying for the HOS adverse driving conditions exception in § 395.1(b)(1) could drive for no more than 2 additional hours beyond the maximum driving time allowed under § 395.3(a) or § 395.5(a) if they encountered adverse driving conditions after dispatch. The previous provision did not allow for the extension of the 14-hour driving window (or 15 hours on-duty for drivers of passenger-carrying CMVs), and thus could not be used if the adverse driving condition was encountered towards the end of that period. In this final rule, FMCSA allows a 2-hour extension of the 14-hour driving window (or 15 hours on-duty for drivers of passenger-carrying CMVs). This change aligns the regulations with the intent of the adverse driving condition provision, which is to allow drivers flexibility when faced with unexpected conditions. This change will not increase the available driving time.

The adverse driving conditions provision is intended to provide flexibility for drivers who encounter such adverse driving conditions which were not apparent at the time of dispatch. However, it did not previously extend the driving window, limiting its use. This final rule will increase flexibility by allowing drivers encountering adverse driving conditions to extend their driving window by the same 2 hours that currently apply to driving time. This change will provide drivers with additional options to determine the best solution based on their situation.

The Agency anticipates that the increased options and flexibility will result in cost savings to drivers, but is unable to quantify them due to a lack of data regarding the use of the adverse driving exception. FMCSA appreciates the feedback and information received from commenters regarding specific motor carrier experience with the adverse driving condition provision. Commenters were split on the issue, with some stating that they expect an increase in its use and others not expecting to see an increase. FMCSA believes that a decrease in use is unlikely to result from the changes, but it is not clear if or how much of an increase may result on an industry-wide level. Given this uncertainty, FMCSA is unable to estimate the change in use of the adverse driving condition provision at this time.

Federal and State Government Costs

FMCSA will incur costs to update the existing eRODS software. The eRODS software is used by safety officials (Federal, State, and local safety partners) to locate, open, and review output files transferred from a compliant ELD. The eRODS software consists of two components: A database containing the HOS requirements and the software component that compares the compliant ELD output files to the HOS requirements. The changes to the 30-minute break requirement, sleeper berth requirements, and the split-duty period will necessitate updates to the eRODS database that stores the HOS requirements and some minor programming changes to the compliance algorithm aspects of the software.

The Department's Volpe National Transportation Systems Center developed the eRODS software and continues to maintain and update it when needed. Volpe estimates that the final rule will result in one-time eRODS software update costs of $20,000. This includes updating the HOS requirements database and minor programing changes to the software component which consist of five steps: Developing a requirements analysis, design, coding, testing, and deployment of the updates.

The Agency will incur one-time costs in the first year of the analysis period for the training of enforcement personnel. The Agency intends for all training costs related to this final rule to accrue in 2020. First, a contractor is developing training materials at an estimated cost of $90,000. The Agency intends to then utilize these materials and implement a ''train-the-trainer'' model to train inspectors in field locations. This process will involve the training of three master trainers over the course of 3, 8-hour training days (24 hours in total for each master trainer). Next, the 3 master trainers will train 100 trainers from across the country, again over the course of 3, 8-hour training days (24 hours in total for each trainer). The 100 trainers will then conduct approximately 50 training sessions for 500 Federal and 10,500 State trainees in pairs (with 2 trainers per class).

FMCSA then calculated training costs by multiplying the wage rate for each group by the total number of training hours. Next, FMCSA estimated the travel costs associated with the trainings. FMCSA assumed that the 3 master trainers are located near the training sites and thus will not incur travel costs. The 100 trainers, however, are from disparate locations across the country and will be required to travel to the training sites. Federal and State trainees are also expected to travel within their respective State to attend the trainings given at field locations.

Next, FMCSA combined the costs for time spent in trainings and travel costs for each group to estimate total costs for training that are incurred because of the final rule. As shown in Table 5, these calculations resulted in a total cost of $8.6 million associated with training.

TABLE 5—ESTIMATED TOTAL COSTS FOR TRAINING, 2020

Training group	Total costs
Training Materials	$90,000
Master Trainers	18,720
Trainers	382,400
Federal Trainees	435,000
State Trainees	7,638,750
Total Costs	8,564,870
Total 10-Year Cost Savings—7 percent Discount Rate	8,004,551
Total 10-Year Cost Savings—3 percent Discount Rate	8,315,408
Total Annualized Cost Savings—7 percent Discount Rate	1,139,668
Total Annualized Cost Savings—3 percent Discount Rate	974,819

Summary of Quantified Costs

This final rule will not result in any new costs for regulated entities. Instead, this rule will result in increased flexibility for drivers and a quantified reduction in costs for motor carriers. Federal and State governments will incur one-time training costs of $8.6 million for training inspectors on the new requirements. The Federal Government also will incur a one-time eRODS software update cost of approximately $20,000. The change to the 30-minute break requirement will result in a reduction in opportunity cost, or a cost savings, for motor carriers. FMCSA estimates the 10-year motor carrier costs attributable to the changes to the 30-minute break provision at −$2,814.3 million (or a total 10-year motor carrier cost savings of $2,814.3). As shown in Table 6, FMCSA estimates the total costs of this final rule at −$2,366.2 million (or $2,366.2 million in cost savings) discounted at 3 percent, and −$1,917.5 million (or $1,917.5 million in cost savings) discounted at 7 percent. Expressed on an annualized basis, this equates to −$277.4 million in costs (or $277.4 million in cost savings) at a 3 percent discount rate, and −$273.0 million in costs (or $273.0 million in cost savings) at a 7 percent discount rate. All values are in 2018 dollars.

TABLE 6—TOTAL 10-YEAR AND ANNUALIZED COSTS OF THE FINAL RULE

[In millions of 2018$]

Year	Federal and state government cost A	Cost due to changes in 30-min break provision B	Total costs—undiscounted C = A + B	Total costs—(7 percent discount rate)	Total costs—(3 percent discount rate)
2020	$8.6	($98.3)	($89.7)	($83.8)	($87.1)
2021	0.0	(296.1)	(296.1)	(258.6)	(279.1)
2022	0.0	(297.5)	(297.5)	(242.9)	(272.3)
2023	0.0	(298.9)	(298.9)	(228.0)	(265.6)
2024	0.0	(300.3)	(300.3)	(214.1)	(259.1)
2025	0.0	(301.8)	(301.8)	(201.1)	(252.7)
2026	0.0	(303.2)	(303.2)	(188.8)	(246.5)
2027	0.0	(304.6)	(304.6)	(177.3)	(240.5)
2028	0.0	(306.1)	(306.1)	(166.5)	(234.6)
2029	0.0	(307.5)	(307.5)	(156.3)	(228.8)
Total 10-Year Costs	.....	.....	.....	(1,917.5)	(2,366.2)
Total Annualized Costs	.....	.....	.....	(273.0)	(277.4)

(a) Values shown in parentheses are negative values (*i.e.*, less than zero) and represent a decrease in cost or a cost savings.

Non-Quantified Costs

There are a number of other potential cost savings of this final rule that FMCSA considered which, due to uncertainty around driver behavior, could not be quantified on an industry level.

FMCSA has granted 5-year exceptions from the requirement to return to the driver's normal work reporting location within 12 hours of coming on-duty (examples include: Waste Management Holdings, Inc.; American Concrete Pumping Association; and National Asphalt Paving Association).[65] During the period of the exception, all drivers utilizing it must carry a copy of the exception notice; after that period, entities seeking to maintain the exception must reapply. This final rule will result in cost savings to these (and potentially other) entities by alleviating the need to pursue the exception process and eliminating compliance with exception conditions such as carrying a copy of the exception document, as well as reallocating the time and resources that would have been spent on the exception reapplication. The Federal Government will experience a cost savings equal to the reduction in time and resources necessary to review, comment on, and make final determinations on the exceptions. Additional non-quantified cost savings include increased efficiency afforded to drivers through the changes to the various HOS provisions, such as, efficiency gains due to the short-haul exception; the ability of drivers to make informed decisions due to the changes to the adverse driving conditions and sleeper berth provisions; and the reduction in opportunity cost to drivers from the changes to the 30-minute break provision.

The Agency did not include the cost for ELD manufacturers to update ELD equipment or software. A compliant ELD and its software will not need to be updated because of this final rule. FMCSA is aware, however, that some ELD manufacturers have chosen to go beyond the minimum ELD requirements and provide additional features, such as alerts when a driver may be close to an HOS violation. FMCSA acknowledges that the additional features will need to be updated because of the rule, or risk being inaccurate. ELD manufacturers providing these features have staff that routinely provides updates and patches to their ELD software, and transmits those updates directly to the devices on-board vehicles. Many carriers have subscriptions with companies and will receive the updated software as soon as practicable. While updating ELD equipment is not a requirement or direct cost of the rule, it is an indirect cost attributable to this rule. FMCSA received comments from ELD manufacturers on the time required to make and distribute software updates, and discusses those comments in this preamble. FMCSA did not receive comments addressing the cost of software updates, and considers updates to be part of normal business practices. Therefore, FMCSA is not estimating the cost of updating the additional ELD features.

The Agency did not quantify impacts resulting from any potential decreases in congestion that may result from the final rule. Allowing drivers to take breaks at their convenience, such as during times of heavy traffic congestion, could allow the driver to operate at a

[65] Available at: *https://www.regulations.gov/docket?D=FMCSA-2017-0197. https://www.regulations.gov/document?D=FMCSA-2018–0181–0057,* and *https://www.regulations.gov/docket?D=FMCSA-2018-0175,* respectively.

more consistent speed without the starting and stopping that occurs in heavy traffic. American Transportation Research Institute technical memorandum demonstrated that avoiding congestion could result in moving freight the same number of miles in fewer work hours. This could reduce fuel and vehicle costs for the motor carriers, congestion for the public by removing large vehicles from the road during peak travel times, and the incidence of crashes related to congestion. While these impacts could result from any individual trip, FMCSA cannot estimate the magnitude or likelihood of these potential impacts for many reasons. Most notably, these impacts hinge on the availability of CMV parking. FMCSA is aware that parking is not always available, especially in urban areas or heavily travelled truck routes.

Additional non-quantified cost savings include increased flexibility and a reduction in back office administrative costs resulting from the extension of the duty day and the air-mile radius for those operating under the short-haul exception; the increased options for drivers to respond to adverse driving conditions during the course of their duty period; and increased flexibility afforded to drivers, such as increased options with regard to on-duty and off-duty time resulting from changes to the 30-minute break requirement, and the sleeper berth provisions.

Summary of Benefits

The Agency does not anticipate that this final rule will result in any new regulatory benefits. Additionally, the Agency does not believe that the rule will result in any reductions in safety benefits or other regulatory benefits.

30-Minute Break

The changes to the 30-minute break provision are estimated to be safety-neutral because both the current rule and the final rule will prevent CMV operators from driving for more than 8 hours without at least a 30-minute change in duty status. The distinction is that the final rule focuses on actual driving time rather than on-duty time, some of which may not be spent behind the wheel. The Agency discussed the value of off-duty breaks as compared to on-duty breaks in previous rulemakings, but did not quantify the safety benefits attributable to the off-duty break when the break provision was added to the HOS rules in 2011 (76 FR 81134, Dec. 27, 2011). Further, FMCSA has determined that the value of off-duty breaks relative to on-duty breaks should be reconsidered.

As discussed above and in the RIA, the Agency has carefully considered the views of numerous commenters requesting exceptions or removal of the 30-minute break requirement. As a result of the feedback, and after reviewing available research, FMCSA anticipates that an on-duty break from driving, will not adversely affect safety relative to the previous requirements. Based on comments to the ANPRM, the Agency took another look at the Blanco, et al. (2011), study to determine the applicability of the study findings to the 30-minute break requirement. This final rule focuses on achieving a break from driving as opposed to a break after a certain amount of time on-duty. For these reasons, the Agency believes that these changes will not have an impact on the safety benefits of the HOS rules and did not quantify changes in regulatory benefits for this final rule.

Alternative 1, which would eliminate the 30-minute break requirement, seems to be more flexible than the preferred alternative. However, eliminating the requirement would allow drivers the opportunity to operate a vehicle for 11 hours without stopping. In general, FMCSA does not anticipate that drivers would alter their schedules to such an extent, but would likely take breaks to eat, rest, etc. However rare of an occurrence 11 continuous hours of driving may be, FMCSA considers it to be detrimental to safety. As such, alternative 1 may be more flexible and would result in an equivalent level of motor carrier cost savings, but would lead to a reduction in safety benefits relative to the preferred alternative. Therefore, FMCSA is not finalizing alternative 1.

Sleeper Berth

As discussed in the RIA and elsewhere in this preamble, there is an extensive body of research suggesting that split-sleep schedules may improve safety and productivity, compared to consolidated daytime sleep.

This final rule will ensure that drivers using the sleeper berth to obtain the minimum off-duty time have at least one rest period of a sufficient length to have restorative benefits to counter fatigue. This final rule provides drivers with the flexibility to make decisions regarding their rest that best fits their individual needs, while continuing to prohibit potential overly-long periods of wakefulness and duty hours that could lead to fatigue-related crashes.

As discussed extensively in this preamble, the Agency reviewed the comments received and studies provided and has determined that the change will not result in adverse safety outcomes. The available studies on sleeper berth use highlight the fact that the split sleeper berth option is a viable and safe alternative to a minimally compliant, consolidated break of 10 consecutive hours. The current rulemaking retains a sleeper berth anchor period of sufficient length to give drivers an opportunity for rest and when combined with the shorter rest period, to ensure drivers will continue to have 10 hours of time during each day when they are relieved of all responsibility for performing work. As such, the Agency anticipates that the increased flexibility in this final rule will not affect the safety outcomes achieved by the current sleeper berth provision.

Alternative 1, which would maintain an 8/2 split option but exclude the shorter rest period from the calculation of the 14-hour driving window, would be more restrictive than the preferred alternative and allow fewer options for drivers to split their 10 hours of off-duty time. Based on the research discussed above, a 7/3 split option will allow for an adequate rest period and will not impact safety relative to an 8/2 split option. Alternative 1 would be more restrictive, would reduce cost savings associated with the changes, and would not provide any additional safety benefits relative to the preferred alternative. Therefore, FMCSA did not propose alternative 1.

Alternative 2, which would allow a 7/3 split option but include the shorter rest period in the calculation of the 14-hour driving window, is more restrictive than the preferred alternative. Under this alternative, a driver would be required to stop driving 14 hours after coming on-duty (excluding the 7 hours spent in the sleeper berth), regardless of the fact that another 3 off-duty hours were resting. Based on results in the Blanco study (2011), FMCSA believes that excluding the shorter rest period from the calculation of the 14-hour driving window would not reduce safety relative to the preferred alternative. The Blanco study showed that the SCE rate increased modestly with increasing work and driving hours. Blanco also found that breaks can be used to counteract the negative effects of time on task. The results from the break analyses indicated that significant safety benefits can be achieved when drivers take breaks from driving. This was a key finding in the Blanco study and clearly shows that breaks can ameliorate the negative impacts associated with fatigue and time on task. As such, alternative 2 would be more restrictive, reduce cost savings associated with the rule, and would not provide any additional safety

benefits relative to the preferred alternative. Therefore, FMCSA did not propose alternative 2.

Short-Haul Operations

The IIHS conducted a study in North Carolina in 2017 and found that interstate truck drivers operating under the short-haul exception had a crash risk 383 percent higher than those not using the exception. They recommended that, due to this finding, the Agency should not propose an extension of the short-haul exception from 12 to 14 hours. FMCSA reviewed the study and noted that while the finding was statistically significant, it was based on a very small sample size, which prevented the author from estimating a matched-pair odds ratio restricted to drivers operating under a short-haul exception, and was not nationally representative. Further, the authors noted that other related factors unobserved in the study may have led to this result. For example, it is possible that older or more poorly maintained trucks are used in local operations. Regardless, because FMCSA's number one priority is safety, the Agency investigated the safety implications of the rule using available data.

Congress passed the Fixing America's Surface Transportation (FAST) Act on December 4, 2015. Among other things, it requires that drivers of ready-mixed concrete delivery trucks be exempted from the requirement to return to their normal work-reporting location after 12 hours of coming on-duty. Beginning on December 5, 2015, operators of concrete mixer trucks met the requirements for the short-haul exception if they returned to their normal work reporting location within 14 hours after coming on-duty. MCMIS contains data on crashes based on vehicle type, allowing the Agency to isolate crashes involving concrete mixer trucks both before and after the congressionally mandated changes to the short-haul exception that mirror this change to extend the 12-hour limit for all short-haul operators.

The Agency first focused on the time of day when crashes occurred. Assuming most concrete mixer trucks are operated on a schedule with a workday that begins in the morning hours and ends in the evening hours, those crashes that occur in the later part of the day would occur towards the end of the 12- or 14-hour workday for the concrete mixer driver. FMCSA found that the percentage of concrete mixers in crashes at later hours of the day (5:00 p.m. to 11:59 p.m.—when drivers are more likely to be close to their maximum hours for the day) has been declining in recent years, falling from 7.6 percent in 2013 to 5.8 percent in 2017.

FMCSA also examined the total number of crashes that involved concrete mixer trucks for the 2 years before and after the congressionally mandated change went into effect. From December 4, 2013, through December 3, 2015, there were 2,723 concrete mixers involved in crashes, or 0.907 percent of the total large trucks involved in crashes (2,723 concrete mixers involved in crashes/300,324 large trucks, including concrete mixers, involved in crashes). From December 4, 2015, through December 2, 2017, there were 2,955 concrete mixers involved in crashes, or 0.919 percent of the total large trucks involved in crashes (2,955 concrete mixers involved in crashes/321,471 large trucks, including concrete mixers, involved in crashes). A Chi-square test suggests that this very minor increase in the concrete mixer share of the total is not statistically significant at the $p < 0.05$ level. Both analyses suggest that the implementation of the Fixing America's Surface Transportation Act on December 4, 2015, did not increase the share of concrete mixers involved in crashes when extending the short-haul exception requirement from 12 to 14 hours.

Some commenters to the NPRM did not agree with the Agency's use of the concrete mixer analysis discussed above based on its lack of direct correlation to the short-haul population. FMCSA did not claim that the analysis is definitive, or that the population of concrete mixers is representative of all short-haul operations. Instead, the analysis was offered as the best available data with a before and after comparison of changes like the changes proposed in the NPRM. FMCSA did not receive comments with additional data on the impact that the proposal rule would have on crash rates.

FMCSA does not anticipate that extending the air-mile radius will result in an increase in aggregate VMT. While more drivers or more trips would now be eligible for the short-haul exception, and thus excluded from the requirement to take a 30-minute break or prepare daily RODS, the total costs of freight transportation would likely not change to such an extent that the quantity of trucking services demanded would increase. Aggregate CMV VMT is determined by many factors, including market demand for transportation. FMCSA does not anticipate that the changes in this final rule would lower costs or prices to such an extent that it would stimulate demand in the freight market, but acknowledges that freight loads may shift from one carrier or driver to another. Because total VMT is not expected to increase, and the changes to the short-haul exception will not extend the workday beyond the current long-haul driving window, the Agency does not anticipate changes in exposure or crash risk.

Additionally, the Agency emphasizes the changes to the short-haul exception in this final rule will not allow any additional drive time, or allow driving after the 14th hour from the beginning of the duty day. Drivers also will still be subject to the ''weekly'' limits of 60 and 70 hours, and the employer must maintain accurate time records showing when the driver reports for work and is released from duty each day. FMCSA therefore anticipates that this final rule will not affect the crash risk of drivers operating under the short-haul exception.

Alternative 1, which would extend the time required for drivers to return to their work reporting location from 12 to 14 hours but continue to maintain a 100 air-mile radius requirement, would reduce the population of drivers eligible for the short-haul exception, compared to the preferred alternative. As discussed above, FMCSA does not anticipate that changing the air-mile radius from 100 to 150 air-miles will impact safety. Alternative 1 would therefore be more restrictive, reduce any cost savings associated with the rule, and would not provide any additional safety benefits relative to the preferred alternative. Thus, FMCSA did not finalize alternative 1.

Adverse Driving Conditions

The Agency defines ''adverse driving conditions'' in § 395.2 as ''snow, sleet, fog, other adverse weather conditions, a highway covered with snow or ice, or unusual road and traffic conditions, none of which were apparent based on information known to the person dispatching the run at the time it was begun.'' The previous adverse driving condition rule gave drivers 2 additional hours of driving time to help them avoid rushing to either stay ahead of adverse driving conditions, make up for lost time due to poor conditions, or allow drivers time to locate a safe place to stop and wait out the adverse driving conditions. The Agency anticipates that this final rule and the extension of the driving window by 2 hours will enhance this goal by giving drivers greater flexibility to use their extended driving time without worrying about the closing driving window. While the Agency is not aware of any research that is specific to the impact of adverse driving conditions on crash risk, the flexibility provided in the final rule will allow drivers to make decisions based

on current conditions without penalizing them by ''shortening'' their driving window. Further, the Agency stresses that this change will not increase maximum available driving time beyond that allowed by the current rule, but may increase driving hours by allowing some drivers to use more of their available driving time.

The NPRM asked whether drivers would use the longer driving window to increase their VMT. Several commenters provided responses depicting the range of potential outcomes, but clear data detailing the impact those outcomes might have on VMT was not provided. Ultimately, each adverse condition presents a unique set of circumstances that drivers and motor carriers will react to—not plan for. By their very nature, adverse driving conditions are unpredictable, and thus motor carriers would not be able to plan in advance for additional deliveries, trips, or VMT. FMCSA did not estimate an increase in VMT resulting from the changes to this provision. The Agency is unable to quantitatively assess the impacts on safety from this final rule due to a lack of data regarding the use of the adverse driving provision. The Agency also lacks data on the relationship between crash risk and adverse driving conditions, and potential reductions in crash risk that result from the avoidance of these conditions.

Health Impacts

The RIA for the 2011 HOS final rule estimated health benefits in the form of decreased mortality risk based on decreases in daily driving time, and possible increases in sleep. The changes were largely based on limiting the use of the 34-hour restart provision. That provision, however, was removed by operation of law when the study required by the 2015 DOT Appropriations Act failed to find statistically significant benefits of the 2011 limitations on the 34-hour restart.[66] This final rule does not affect the reinstated original 34-hour restart provision, and thus the health benefits estimated in the 2011 RIA will not be affected by this final rule.

As concerns this final rule, FMCSA anticipates that some drivers will experience a decrease in stress, which could lead to increases in health benefits. As discussed in the RIA, drivers have repeatedly provided comments relating to stress resulting from the 14-hour limit. The sleeper berth proposal could alter drivers' schedules relative to the current requirements, by allowing drivers the flexibility to rest, without penalty, when they are tired or in times of heavy traffic. However, this final rule continues to allow for an adequate rest period. This final rule retains the current driving time and work time, but could allow for changes in the number of hours driven or worked on any given day. The flexibilities in this final rule are intended to allow drivers to shift their drive and work time under the HOS rules to mitigate the impacts of uncertain factors (*e.g.,* traffic, weather, and detention times). Total hours driven or worked could increase or decrease on a given day, but FMCSA does not anticipate that these time shifts will negatively impact drivers' health. Instead, this final rule will empower drivers to make informed decisions based on the current situation, and thus the rule could lead to a decrease in stress and subsequent health benefits.

FMCSA also notes that the effect of specific regulatory changes on driver health is difficult to evaluate, first, because most health effects have multiple causes and are discernible only over extended time periods, and, second, because a cause-and-effect relationship between a rule and a given health outcome may be difficult to establish. As pointed out in the 2005 HOS final rule, attempts to create a dose-response curve for the effects of exposure to diesel exhaust have not produced clear-cut results (70 FR 49978, 4983, August 25, 2005). Such an attempt would be even more difficult for the incremental HOS changes promulgated today.

FMCSA believes that the changes made by this final rule are safety- and health-neutral. For example, the expansion of the short-haul radius from 100 to 150 air-miles and of the workday from 12 to 14 hours simply gives short-haul carriers the same driving limit and driving window that other carriers have utilized for many years (without a distance limit). The 11- and 14-hour HOS limits now applicable to both short- and long-haul carriers are consistent with the statutory obligation to protect driver safety and health (49 U.S.C. 31136(a)(2), (4)), as shown by the extensive discussion in the 2005 final rule (70 FR 49978, 49982 *et seq.*).

Section 12.f of DOT Order 2100.6 dated December 27, 2019 provides additional requirements for retrospective reviews, specifically each economically significant rule or high-impact rule, the responsible Office of the Administrator or Office of the Secretary of Transportation component shall publish a regulatory impact report in the **Federal Register** every 5 years after the effective date of the rule while the rule remains in effect.

In accordance with the DOT order, FMCSA will assess the impact of these changes to the HOS requirements within 5 years of the effective date of the final rule.

B. E.O. 13771 (Reducing Regulation and Controlling Regulatory Costs)

E.O. 13771, Reducing Regulation and Controlling Regulatory Costs, was issued on January 30, 2017 (82 FR 9339, Feb. 3, 2017). E.O. 13771 requires that, for every one new regulation issued by an Agency, at least two prior regulations be identified for elimination, and that the cost of planned regulations be prudently managed and controlled through a budgeting process. Final implementation guidance addressing the requirements of E.O. 13771 was issued by the OMB on April 5, 2017.[67] The OMB guidance defines what constitutes an E.O. 13771 regulatory action and an E.O. 13771 deregulatory action, provides procedures for how agencies should account for the costs and cost savings of such actions, and outlines various other details regarding implementation of E.O. 13771.

This final rule will have total costs less than zero, and therefore qualifies as an E.O. 13771 deregulatory action. The present value of the cost savings of this final rule, measured on an infinite time horizon at a 7 percent discount rate, expressed in 2016 dollars, and discounted to 2020 (the year the final rule will go into effect and cost savings will first be realized), is $4,105 million. On an annualized basis, these cost savings are $287 million.

[66] Sec.133 of the 2015 DOT Appropriations Act (Pub. L. 113–235, Dec. 16, 2014, 128 Stat. 2130, 2711) suspended the 2011 restart provisions, temporarily reinstated the pre-2011 restart rule, and required a study of the effectiveness of the new rule. Sec. 133 of the 2016 DOT Appropriations Act (Pub. L. 114–113, Dec. 18, 2015, 129 Stat. 2242, 2850) made it clear that the 2011 restart provisions would have no effect unless the study required by the 2015 DOT Appropriations Act showed that those provisions had statistically significant benefits compared to the pre-2011 restart rule. Sec. 180 of the Further Continuing and Security Assistance Appropriations Act, 2017 (Pub. L. 114–254, Dec. 10, 2016, 130 Stat. 1005, 1016) replaced Sec. 133 of the 2016 DOT Appropriations Act in its entirety to correct an error and ensure that the pre-2011 restart rule would be reinstated by operation of law unless the study required by the 2015 DOT Appropriations Act showed that the 2011 restart rule had statistically significant improvements related to safety and operator fatigue compared to the pre-2011 restart rule. DOT concluded that the study failed to find these statistically significant improvements, and the Office of Inspector General confirmed that conclusion in a report to Congress.

[67] Executive Office of the President. Office of Management and Budget. *Memorandum M–17–21. Guidance Implementing Executive Order 13771.* April 5, 2017.

For the purpose of E.O. 13771 accounting, the April 5, 2017, OMB guidance requires that agencies also calculate the costs and cost savings discounted to year 2016. In accordance with this requirement, the present value of the cost savings of this rule, measured on an infinite time horizon at a 7 percent discount rate, expressed in 2016 dollars, and discounted to 2016, is $3,132 million. On an annualized basis, these cost savings are $219 million.

C. Congressional Review Act

Pursuant to the Congressional Review Act (5 U.S.C. 801, *et seq.*), the Office of Information and Regulatory Affairs designated this rule as a ''major rule,'' as defined by 5 U.S.C. 804(2).[68]

D. Regulatory Flexibility Act

The Regulatory Flexibility Act of 1980 (RFA) (5 U.S.C. 601, *et seq.*), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA) (Pub. L. 104–121, 110 Stat. 857), requires Federal agencies to consider the impact of their regulatory actions on small entities, analyze effective alternatives that minimize small entity impacts, and make their analyses available for public comment. The term ''small entities'' means small businesses and not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations under 50,000.[69] Accordingly, DOT policy requires an analysis of the impact of all regulations on small entities, and mandates that agencies strive to lessen any adverse effects on these entities. Section 605 of the RFA allows an Agency to certify a rule, in lieu of preparing an analysis, if the rulemaking is not expected to have a significant economic impact on a substantial number of small entities.

FMCSA developed an Initial Regulatory Flexibility Analysis (IRFA) for the NPRM, and reviewed comments in response to the IRFA. A comment received on the NPRM by the SBA's Office of Advocacy noted the regulatory relief that this final rule would provide for drivers needing additional flexibility in their schedule due to unforeseeable driving conditions or for other reasons. The regulatory relief for small entities afforded by this final rule was also noted in a comment received on the NPRM from the Petroleum Marketers Association of America. However, one commenter to the NPRM noted that the IRFA narrowly focused on the certain industry segments, and did not consider other industries besides Truck Transportation (NAICS Subsector 484) that would be affected by the proposed changes to the HOS provisions. In response to this comment, FMCSA evaluated small entities potentially impacted by the rule in an expanded set of industries conducted at the level of two-digit NAICS sectors.

This rule affects drivers, motor carriers, and Federal and State governments. Drivers are not considered small entities because they do not meet the definition of a small entity in Section 601 of the RFA. Specifically, drivers are considered neither a small business under Section 601(3) of the RFA, nor are they considered a small organization under Section 601(4) of the RFA. Federal and State governments do not meet the definition of a small entity because they are governmental jurisdictions with populations greater than 50,000.

The SBA defines the size standards used to classify entities as small. SBA establishes separate standards for each industry, as defined by the North American Industry Classification System (NAICS). In the NPRM, FMCSA estimated that the motor carriers that would experience regulatory relief under the proposed rule would be in industries within Subsector 484 (Truck Transportation). These industries include General Freight Trucking (4841) and Specialized Freight Trucking (4842). Subsector 484 has an SBA size standard based on annual revenue of $27.5 million.

The SBA defines the size standards used to classify entities as small. SBA establishes separate standards for each industry, as defined by the NAICS.[70] This rule could affect many different industry sectors in addition to the Transportation and Warehousing sector (NAICS sectors 48 and 49); for example, the Construction sector (NAICS sector 23), the Manufacturing sector (NAICS sectors 31, 32, and 33), and the Retail Trade sector (NAICS sectors 44 and 45). Industry groups within these sectors have size standards for qualifying as small based on the number of employees (*e.g.,* 500 employees), or on the amount of annual revenue (*e.g.,* $27.5 million in revenue). To determine the NAICS industries potentially affected by this rule, FMCSA cross-referenced occupational employment statistics from the BLS with NAICS industry codes.

FMCSA examined data from the U.S. Census Bureau to determine the number of small entities within the identified NAICS industry groups. The Census Bureau collects and publishes data on the number of firms, establishments, employment, annual payroll, and estimated receipts by enterprise[71] employment size. The most recent data available are from the 2012 County Business Patterns and the 2012 Economic Census.[72] The firms and establishments are grouped by the employment size of the enterprise, all within 4-digit NAICS industry groups. The largest employment size group is 500+ employees per enterprise. The table also provides the employment and receipts at establishments within each enterprise employment size category. Because there are no data available on the revenue per enterprise or the number of employees per enterprise (although these data are available at the establishment level), FMCSA identifies the number of establishments that would be considered small based on SBA size standards.

For industries with an employee-based size standard, the number of small establishments was identified based on the employment groupings of the enterprise. The enterprises employment size groups are as follows: 0–4, 5–9, 10–19, 20–99, 100–499, and 500+. When a size standard fell within a defined enterprise employment size group, the entire group was considered small. For example, if the size standard was 250 employees, all establishments within the 100–499 employment size

[68] A ''major rule'' means any rule that the Administrator of the Office of Information and Regulatory Affairs at OMB finds has resulted in or is likely to result in (a) an annual effect on the economy of $100 million or more; (b) a major increase in costs or prices for consumers, individual industries, Federal agencies, State agencies, local government agencies, or geographic regions; or (c) significant adverse effects on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic and export markets (5 U.S.C. 804(2)).

[69] Regulatory Flexibility Act, Public Law 96–354, 94 Stat. 1164 (codified at 5 U.S.C. 601, *et seq.*).

[70] Executive Office of the President, Office of Management and Budget (OMB). ''North American Industry Classification System.'' 2017. Available at: *https://www.census.gov/eos/www/naics/2017NAICS/2017_NAICS_Manual.pdf,* last accessed January 15, 2020.

[71] An enterprise (or ''company'') is a business organization consisting of one or more domestic establishments that were specified under common ownership or control. The enterprise and the establishment are the same for single-establishment firms. Each multi-establishment company forms one enterprise—the enterprise employment and annual payroll are summed from the associated establishments. An establishment is a single physical location where business is conducted or where services or industrial operations are performed.

[72] U.S. Department of Commerce, U.S. Census Bureau. Enterprise Statistics. *Table 2: Selected Enterprise Statistics by Employment Size by Sector in the U.S.: 2012. Release date June 15, 2016.* Available at: *http://www2.census.gov/econ/esp/2012/esp2012_table2.xlsx* last accessed January 17, 2020.

group, as well as smaller employment size groups, were counted as small. This results in an overestimation in the number of establishments that are considered small, as some establishments within the employment size group would not be small.

For industries with a revenue-based size standard, the number of establishments within each enterprise employment size group was divided by the estimated receipts for those establishments. This provided the estimated average revenue per establishment within each enterprise employment size group. If this value was below the revenue size standard, then all establishments within that enterprise employment size group, and all smaller enterprise employment size groups, were considered to be small for purposes of the analysis.

Table 7 presents the NAICS sectors determined by FMCSA to be affected by this final rule along with information on the number of firms in the industry, the percent of firms determined to be small entities based on the industry-specific size standards, and the estimated number of small entities.

TABLE 7—PERCENT AND NUMBER OF SMALL FIRMS IN AFFECTED NAICS SECTORS

NAICS sector	Meaning of NAICS sector	Number of firms	Percent of small entities	Number of small entities
11	Agriculture, Forestry, Fishing and Hunting	12,486	100	12,454
21	Mining, Quarrying, and Oil and Gas Extraction	22,306	97	21,627
23	Construction	641,808	100	641,808
31	Manufacturing	33,952	97	32,999
32	Manufacturing	54,120	93	50,121
33	Manufacturing	87,153	98	85,300
42	Wholesale Trade	145,904	79	114,828
44	Retail Trade	333,358	98	327,856
45	Retail Trade	131,034	99	130,091
48	Transportation and Warehousing	53,098	99	52,697
49	Transportation and Warehousing	15,720	92	14,458
51	Information	39,642	96	38,229
53	Real Estate and Rental and Leasing	4,197	100	4,197
54	Professional, Scientific, and Technical Services	583,762	100	583,762
55	Management of Companies and Enterprises	26,819	100	26,819
56	Administrative and Support and Waste Management and Remediation Services.	326,379	100	326,379
61	Educational Services	34,654	100	34,654
62	Health Care and Social Assistance	402,594	100	402,576
71	Arts, Entertainment, and Related Industries	92,857	100	92,857
72	Arts, Entertainment, and Related Industries	446,097	100	446,097
81	Public Administration	366,008	100	366,008

[1] Values in the table are rounded to the nearest whole percent for display purposes. The ''Number of Small Entities'' in Column (C) is the product of unrounded values.

FMCSA does not have exact estimates on the per-motor carrier impact of this proposal. The RIA for this final rule estimates cost savings associated with the proposed changes to the 30-minute break requirement. For illustrative purposes, FMCSA developed a per-driver annual cost savings estimate. As shown below, a firm with one driver could expect a cost savings of approximately $127 in 2021, the first full year of the analysis.

TABLE 8—WEIGHTED ANNUAL PER-DRIVER COST SAVINGS OF THE PROPOSED CHANGES TO THE 30-MINUTE BREAK REQUIREMENT

Driver group	Hours saved per shift [(a)]	Shifts per year [(b)]	Annual hours saved per driver [(c)]	Annual per driver cost savings [(d)]	Percent of total hours [(e)]
Group 1	0.25	120	30	$99.98	19
Group 2	0.50	80	40	$133.30	81
Group 3	0.00	60	0	0	0
Weighted Annual Per-Driver Cost Savings					$127.04

[(a)] See Table 4 in the RIA
[(b)] See Table 5 in the RIA
[(c)] Hours Saved per Shift × Annual Hours Saved per Driver
[(d)] Annual Hours Saved per Driver × $3.33 Motor Carrier Profit Margin
[(e)] See Table 6 in the RIA, Total Hours Saved per Year, by Group ÷ Total Hours Saved per Year for All Groups

The RFA does not define a threshold for determining whether a specific regulation results in a significant impact. However, the SBA, in guidance to government agencies, provides some objective measures of significance that the agencies can consider using.[73] One measure that could be used to illustrate a significant impact is labor costs, specifically, if the cost of the regulation exceeds 1 percent of the average annual revenues of small entities in the sector. Given the average annual per-entity impact of $127.04, a small entity would

[73] U.S. Small Business Administration, Office of Advocacy. ''A Guide for Government Agencies. How to Comply with the Regulatory Flexibility Act.'' 2017. Available at: *https://www.sba.gov/sites/default/files/advocacy/How-to-Comply-with-the-RFA-WEB.pdf,* last accessed on January 16, 2020.

need to have average annual revenues of less than $12,704 to experience an impact greater than 1 percent of average annual revenue, which is an average annual revenue that is smaller than would be required for a firm to support one employee. Therefore, this rule does not have a significant impact on the entities affected.

Accordingly, I hereby certify that the action does not have a significant economic impact on a substantial number of small entities.

E. Assistance for Small Entities

In accordance with section 213(a) of the SBREFA, FMCSA wants to assist small entities in understanding this rule so that they can better evaluate its effects on themselves and participate in the rulemaking initiative. If the rule will affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please consult the FMCSA point of contact, Mr. Richard Clemente, listed in the **FOR FURTHER INFORMATION CONTACT** section of this proposed rule.

Small businesses may send comments on the actions of Federal employees who enforce or otherwise determine compliance with Federal regulations to the Small Business Administration's Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of FMCSA, call 1–888–REG–FAIR (1–888–734–3247). DOT has a policy regarding the rights of small entities to regulatory enforcement fairness and an explicit policy against retaliation for exercising these rights.

F. Unfunded Mandates Reform Act of 1995

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector, of $165 million (which is the value equivalent of $100,000,000 in 1995, adjusted for inflation to 2018 levels) or more in any 1 year. Because this rule will not result in such an expenditure, a written statement is not required. However, the Agency does discuss the costs and benefits of this rule elsewhere in this preamble.

G. Paperwork Reduction Act

This rule will not call for a new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). This rule will not modify the existing approved collection of information (OMB Control Number 2126–0001, HOS of Drivers Regulations, approved July 29, 2019/, through July 31, 2022).

H. E.O. 13132 (Federalism)

A rule has implications for federalism under section 1(a) of E.O. 13132 if it has ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.'' FMCSA determined that this proposal will not have substantial direct costs on or for States, nor will it limit the policymaking discretion of States. Nothing in this document preempts any State law or regulation. Therefore, this rule does not have sufficient federalism implications to warrant the preparation of a Federalism Impact Statement.

I. Privacy

Section 522 of title I of division H of the Consolidated Appropriations Act, 2005, enacted December 8, 2004 (Pub. L. 108–447, 118 Stat. 2809, 3268, note following 5 U.S.C. 552a), requires the Agency to conduct a Privacy Impact Assessment of a regulation that will affect the privacy of individuals. The assessment considers impacts of the rule on the privacy of information in an identifiable form and related matters. The FMCSA Privacy Officer has evaluated the risks and effects the rulemaking might have on collecting, storing, and sharing personally identifiable information and has evaluated protections and alternative information handling processes in developing the rule to mitigate potential privacy risks. FMCSA determined that this rule does not require the collection of individual personally identifiable information.

Additionally, the Agency submitted a Privacy Threshold Assessment analyzing the rulemaking and the specific process for collection of personal information to the DOT, Office of the Secretary's Privacy Office. The DOT Privacy Office has determined that this rulemaking does not create privacy risk.

The E-Government Act of 2002, Public Law 107–347, sec. 208, 116 Stat. 2899, 2921 (Dec. 17, 2002), requires Federal agencies to conduct a Privacy Impact Assessment for new or substantially changed technology that collects, maintains, or disseminates information in an identifiable form. No new or substantially changed technology would collect, maintain, or disseminate information because of this rule.

J. E.O. 13783 (Promoting Energy Independence and Economic Growth)

E.O. 13783 directs executive departments and agencies to review existing regulations that potentially burden the development or use of domestically produced energy resources, and to appropriately suspend, revise, or rescind those that unduly burden the development of domestic energy resources. In accordance with E.O. 13783, DOT prepared and submitted a report to the Director of OMB that provides specific recommendations that, to the extent permitted by law, could alleviate or eliminate aspects of agency action that burden domestic energy production. This rule has not been identified by DOT under E.O. 13783 as potentially alleviating unnecessary burdens on domestic energy production.

K. E.O. 13175 (Indian Tribal Governments)

This rule does not have tribal implications under E.O. 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian Tribes, on the relationship between the Federal Government and Indian Tribes, or on the distribution of power and responsibilities between the Federal Government and Indian Tribes.

L. National Technology Transfer and Advancement Act (Technical Standards)

The National Technology Transfer and Advancement Act (note following 15 U.S.C. 272) directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through OMB, with an explanation of why using these standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards (*e.g.,* specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) are standards that are developed or adopted by voluntary consensus standards bodies. This rule does not use technical standards. Therefore, FMCSA did not consider the use of voluntary consensus standards.

M. Environment (Clean Air Act, NEPA)

FMCSA completed an environmental assessment (EA) pursuant to the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321 *et seq.*), 40 CFR parts 1500–1508, Council on Environmental Quality Regulations for Implementing NEPA, as amended, FMCSA Order 5610.1, *National Environmental Policy Act Implementing Procedures and Policy for Considering Environmental Impacts,* March 1, 2004, and DOT Order 5610.1C, *Procedures for Considering Environmental Impacts,* as amended on July 13, 1982 and July 30, 1985. The EA is in the docket for this rulemaking. As discussed in the EA, FMCSA also analyzed this rule under the Clean Air Act, as amended, section 176(c), (42 U.S.C. 7401 *et seq.*) and implementing regulations promulgated by the Environmental Protection Agency. FMCSA concludes that the issuance of the rule would not significantly affect the quality of the human environment. Therefore, an environmental impact statement process is unnecessary.

List of Subjects

49 CFR Part 385

Administrative practice and procedures, Highway safety, Incorporation by reference, Mexico, Motor carriers, Motor vehicle safety, Reporting and recordkeeping requirements.

49 CFR Part 395

Highway safety, Motor carriers, Reporting and recordkeeping requirements.

Accordingly, FMCSA amends 49 CFR parts 385 and 395.

PART 385—SAFETY FITNESS PROCEDURES

■ 1. The authority citation for part 385 continues to read as follows:

Authority: 49 U.S.C. 113, 504, 521(b), 5105(d), 5109, 5113, 13901–13905, 13908, 31135, 31136, 31144, 31148, 31151 and 31502; Sec. 350, Pub. L. 107–87, 115 Stat. 833, 864; and 49 CFR 1.87.

■ 2. Amend appendix B to part 385, section VII as follows:

■ a. Redesignate existing references to §§ 395.1(h)(1)(i), 395.1(h)(1)(ii), 395.1(h)(1)(iii), and 395.1(h)(1)(iv) as §§ 395.1(h)(1)(i)(A), 395.1(h)(1)(i)(B), 395.1(h)(1)(i)(C), and 395.1(h)(1)(i)(D), respectively; and

■ b. Revise the text for § 395.3(a)(3)(ii).

The revision reads as follows:

Appendix B to Part 385—Explanation of Safety Rating Process

* * * * *

VII. List of Acute and Critical Regulations

* * * * *

§ 395.3(a)(3)(ii) Requiring or permitting a property-carrying commercial motor vehicle driver to drive if more than 8 hours of driving time have passed without a consecutive interruption in driving status of at least 30 minutes, either off-duty, sleeper berth or on-duty not driving (critical).

PART 395—HOURS OF SERVICE OF DRIVERS

■ 3. The authority citation for part 395 continues to read as follows:

Authority: 49 U.S.C. 504, 31133, 31136, 31137, 31502; sec. 113, Public Law 103–311, 108 Stat. 1673, 1676; sec. 229, Pub. L. 106–159 (as added and transferred by sec. 4115 and amended by secs. 4130–4132, Pub. L. 109–59, 119 Stat. 1144, 1726, 1743, 1744); sec. 4133, Public Law 109–59, 119 Stat. 1144, 1744; sec. 108, Public Law 110–432, 122 Stat. 4860–4866; sec. 32934, Public Law 112–141, 126 Stat. 405, 830; sec. 5206(b), Public Law 114–94, 129 Stat. 1312, 1537; and 49 CFR 1.87.

■ 4. Amend § 395.1 by revising paragraphs (b)(1), (e)(1), (g)(1), and (h) to read as follows:

§ 395.1 Scope of rules in this part.

* * * * *

(b) * * *

(1) *Adverse driving conditions.* Except as provided in paragraph (h)(3) of this section, a driver who encounters adverse driving conditions, as defined in § 395.2, and cannot, because of those conditions, safely complete the run within the maximum driving time or duty time during which driving is permitted under § 395.3(a) or § 395.5(a) may drive and be permitted or required to drive a commercial motor vehicle for not more than two additional hours beyond the maximum allowable hours permitted under § 395.3(a) or § 395.5(a) to complete that run or to reach a place offering safety for the occupants of the commercial motor vehicle and security for the commercial motor vehicle and its cargo.

* * * * *

(e) * * *

(1) *150 air-mile radius driver.* A driver is exempt from the requirements of §§ 395.8 and 395.11 if:

(i) The driver operates within a 150 air-mile radius (172.6 statute miles) of the normal work reporting location;

(ii) The driver, except a driver-salesperson, returns to the work reporting location and is released from work within 14 consecutive hours;

(iii)(A) A property-carrying commercial motor vehicle driver has at least 10 consecutive hours off-duty separating each 14 hours on-duty;

(B) A passenger-carrying commercial motor vehicle driver has at least 8 consecutive hours off-duty separating each 14 hours on-duty; and

(iv) The motor carrier that employs the driver maintains and retains for a period of 6 months accurate and true time records showing:

(A) The time the driver reports for duty each day;

(B) The total number of hours the driver is on-duty each day;

(C) The time the driver is released from duty each day; and

(D) The total time for the preceding 7 days in accordance with § 395.8(j)(2) for drivers used for the first time or intermittently.

* * * * *

(g) * * *

(1) *Property-carrying commercial motor vehicle*—(i) *General.* A driver who operates a property-carrying commercial motor vehicle equipped with a sleeper berth, as defined in § 395.2, and uses the sleeper berth to obtain the off-duty time required by § 395.3(a)(1) must accumulate:

(A) At least 10 consecutive hours off-duty;

(B) At least 10 consecutive hours of sleeper berth time;

(C) A combination of consecutive sleeper berth and off-duty time amounting to at least 10 hours;

(D) A combination of sleeper berth time of at least 7 consecutive hours and up to 3 hours riding in the passenger seat of the vehicle while the vehicle is moving on the highway, either immediately before or after the sleeper berth time, amounting to at least 10 consecutive hours; or

(E) The equivalent of at least 10 consecutive hours off-duty calculated under paragraphs (g)(1)(ii) and (iii) of this section.

(ii) *Sleeper berth.* A driver may accumulate the equivalent of at least 10 consecutive hours off-duty by taking not more than two periods of either sleeper berth time or a combination of off-duty time and sleeper berth time if:

(A) Neither rest period is shorter than 2 consecutive hours;

(B) One rest period is at least 7 consecutive hours in the sleeper berth;

(C) The total of the two periods is at least 10 hours; and

(D) Driving time in the period immediately before and after each rest period, when added together:

(*1*) Does not exceed 11 hours under § 395.3(a)(3); and

(*2*) Does not violate the 14-hour duty-period limit under § 395.3(a)(2).

(iii) *Calculation*—(A) *In general.* The driving time limit and the 14-hour duty-period limit must be re-calculated from the end of the first of the two periods

used to comply with paragraph (g)(1)(i)(E) of this section.

(B) *14-hour period.* The 14-hour driving window for purposes of § 395.3(a)(2) does not include qualifying rest periods under paragraph (g)(1)(ii) of this section.

* * * * *

(h) *State of Alaska*—(1) *Property-carrying commercial motor vehicle*—(i) *In general.* The provisions of § 395.3(a) and (b) do not apply to any driver who is driving a commercial motor vehicle in the State of Alaska. A driver who is driving a property-carrying commercial motor vehicle in the State of Alaska must not drive or be required or permitted to drive:

(A) More than 15 hours following 10 consecutive hours off-duty;

(B) After being on-duty for 20 hours or more following 10 consecutive hours off-duty;

(C) After having been on-duty for 70 hours in any period of 7 consecutive days, if the motor carrier for which the driver drives does not operate every day in the week; or

(D) After having been on-duty for 80 hours in any period of 8 consecutive days, if the motor carrier for which the driver drives operates every day in the week.

(ii) *Off-duty periods.* Before driving, a driver who operates a property-carrying commercial motor vehicle equipped with a sleeper berth, as defined in § 395.2, and uses the sleeper berth to obtain the required off-duty time in the State of Alaska, must accumulate:

(A) At least 10 consecutive hours off-duty;

(B) At least 10 consecutive hours of sleeper berth time;

(C) A combination of consecutive sleeper berth and off-duty time amounting to at least 10 hours;

(D) A combination of consecutive sleeper berth time and up to 3 hours riding in the passenger seat of the vehicle while the vehicle is moving on a highway, either immediately before or after a period of at least 7, but less than 10, consecutive hours in the sleeper berth; or

(E) The equivalent of at least 10 consecutive hours off-duty calculated under paragraph (h)(1)(iii) of this section.

(iii) *Sleeper berth.* A driver who uses a sleeper berth to comply with the hours of service regulations may accumulate the equivalent of at least 10 consecutive hours off-duty by taking not more than two periods of either sleeper berth time or a combination of off-duty time and sleeper berth time if:

(A) Neither rest period is shorter than 2 consecutive hours;

(B) One rest period is at least 7 consecutive hours in the sleeper berth;

(C) The total of the two periods is at least 10 hours; and

(D) Driving time in the period immediately before and after each rest period, when added together:

(*1*) Does not exceed 15 hours; and

(*2*) Does not violate the 20-hour duty period under paragraph (h)(1)(i)(B) of this section.

(iv) *Calculation*—(A) *In general.* The driving time limit and the 20-hour duty-period limit must be re-calculated from the end of the first of the two periods used to comply with paragraph (h)(1)(ii)(E) of this section.

(B) *20-hour period.* The 20-hour duty period under paragraph (h)(1)(i)(B) does not include off-duty or sleeper berth time.

(2) *Passenger-carrying commercial motor vehicle.* The provisions of § 395.5 do not apply to any driver who is driving a passenger-carrying commercial motor vehicle in the State of Alaska. A driver who is driving a passenger-carrying commercial motor vehicle in the State of Alaska must not drive or be required or permitted to drive—

(i) More than 15 hours following 8 consecutive hours off-duty;

(ii) After being on-duty for 20 hours or more following 8 consecutive hours off-duty;

(iii) After having been on-duty for 70 hours in any period of 7 consecutive days, if the motor carrier for which the driver drives does not operate every day in the week; or

(iv) After having been on-duty for 80 hours in any period of 8 consecutive days, if the motor carrier for which the driver drives operates every day in the week.

(3) *Adverse driving conditions.* (i) A driver who is driving a commercial motor vehicle in the State of Alaska and who encounters adverse driving conditions (as defined in § 395.2) may drive and be permitted or required to drive a commercial motor vehicle for the period of time needed to complete the run.

(ii) After a property-carrying commercial motor vehicle driver completes the run, that driver must be off-duty for at least 10 consecutive hours before he/she drives again; and

(iii) After a passenger-carrying commercial motor vehicle driver completes the run, that driver must be off-duty for at least 8 consecutive hours before he/she drives again.

* * * * *

■ 5. Amend § 395.2 by revising the definition of ''Adverse driving conditions'' and paragraph (4)(iii) in the definition of ''On-duty time'' to read as follows:

§ 395.2 Definitions.

* * * * *

Adverse driving conditions means snow, ice, sleet, fog, or other adverse weather conditions or unusual road or traffic conditions that were not known, or could not reasonably be known, to a driver immediately prior to beginning the duty day or immediately before beginning driving after a qualifying rest break or sleeper berth period, or to a motor carrier immediately prior to dispatching the driver.

* * * * *

On-duty time * * *

(4) * * *

(iii) Up to 3 hours riding in the passenger seat of a property-carrying vehicle moving on the highway immediately before or after a period of at least 7 consecutive hours in the sleeper berth;

* * * * *

■ 6. Amend § 395.3 by revising paragraphs (a)(2) and (3) to read as follows:

§ 395.3 Maximum driving time for property-carrying vehicles.

(a) * * *

(2) *14-hour period.* A driver may not drive after a period of 14 consecutive hours after coming on-duty following 10 consecutive hours off-duty.

(3) *Driving time and interruptions of driving periods*—(i) *Driving time.* A driver may drive a total of 11 hours during the period specified in paragraph (a)(2) of this section.

(ii) *Interruption of driving time.* Except for drivers who qualify for either of the short-haul exceptions in § 395.1(e)(1) or (2), driving is not permitted if more than 8 hours of driving time have passed without at least a consecutive 30-minute interruption in driving status. A consecutive 30-minute interruption of driving status may be satisfied either by off-duty, sleeper berth or on-duty not driving time or by a combination of off-duty, sleeper berth and on-duty not driving time.

* * * * *

Issued under authority delegated in 49 CFR 1.87.

James A. Mullen,

Deputy Administrator.

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