

**Lynn McNitt**

**From:** Kristie Borchers  
**Sent:** Monday, November 9, 2020 9:36 AM  
**To:** Lynn McNitt  
**Subject:** Fw: Insurance Institute for Highway Safety (IIHS) information on ATVs operating on paved surfaces (Commissioners)  
**Attachments:** IIHS Status Report 4809.pdf; On-road all-terrain vehicle (ATV) fatalities in the United States.pdf

Kristie Borchers  
Hinsdale County Commissioner  
PO Box 277  
Lake City, CO 81235  
district2@hinsdalecountycolorado.us  
970-596-9071



m: peter\_nesbitt@icloud.com <peter\_nesbitt@icloud.com>  
Sent: Monday, November 9, 2020 9:28 AM  
To: Susan Thompson <district1@hinsdalecountycolorado.us>; Kristie Borchers <district2@hinsdalecountycolorado.us>; Sara Gutterman <district3@hinsdalecountycolorado.us>  
Cc: [REDACTED] <[REDACTED]@statecolorado.gov>; Barbara McLachlan <bcharters\_mclachlan\_house@ctstate.gov>; [REDACTED] <[REDACTED]@hinsdalecountycoiff>; [REDACTED] <[REDACTED]>; [REDACTED] <[REDACTED]>; [REDACTED] <[REDACTED]>; [REDACTED] <[REDACTED]>; [REDACTED] <[REDACTED]>; [REDACTED] <[REDACTED]>  
Subject: Insurance Institute for Highway Safety (IIHS) information on ATVs operating on paved surfaces (Commissioners)

**Hinsdale County Commissioners:**

Please see the forwarded email and PDF attachments from Laurel B. Sims, the Senior Legislative Policy Analyst for the Insurance Institute for Highway Safety.

Relevant quotes from the *Status Report*, an IIHS publication, include the following:

"About 1,700 ATV riders died in crashes on public roads in the United States from 2007 to 2011."

**"Although many ATVs can reach highway speeds, their low-pressure tires are not designed for paved surfaces. In addition, many models are apt to roll over."**

**"Today, two-thirds of fatal ATV crashes occur on public or private roads."**

"These vehicles are designed for off-road use, yet most of the fatal crashes are occurring on roads,"

"One way to address the danger of ATVs traveling on paved surfaces might be to strengthen laws that prohibit the vehicles on public roads, since most are paved.

Relevant quotes from *On-road all-terrain vehicle (ATV) fatalities in the United States* attachment, a published Journal of Safety Research article by Allan F. Williams, Stephen L. Oesch, Anne T. McCartt, Eric R. Teohc and Laurel B. Sims include the following:

"ATVs are designed for travel off road on unpaved surfaces, and are primarily used for recreation."

"ATVs are not intended for on-road use and have design features that can increase risk when operated on paved surfaces."

"However, the majority of ATV rider deaths now occur on roads."

"Regulations and laws and their enforcement are important ways of attempting to reduce ATV crashes, especially those occurring on public roads."

"Manufacturers must put labels on ATVs, warning that they should not be used on paved roads."

I hope this information will help you make an informed and researched decision on whether to renew the CO149 Pilot Program in Lake City and Hinsdale County

Sincerely,

Peter D. Nesbitt  
P.O. Box 465  
825 N. Gunnison Ave.  
Lake City, CO 81235  
970-765-6390

Good morning, Mr. Nesbitt -

Thank you both for your efforts to make our roads safer and for letting us know about this program in Colorado.

The Insurance Institute for Highway Safety (IIHS) is an independent, nonprofit scientific and educational organization dedicated to reducing the losses — deaths, injuries and property damage — from motor vehicle crashes. IIHS is also a 501(c)(3) organization, not permitted to directly lobby for or against specific laws.

Attached, are IIHS publications addressing the problem of expanding on-road use of off-road vehicles. Please feel free to share this research with your Department of Transportation officials.

Best regards -  
Laurel



**Laurel B. Sims**  
Senior Legislative Policy Analyst

[lsims@iihs.org](mailto:lsims@iihs.org)  
office +1 703 247 1527

**Insurance Institute for Highway Safety**  
4121 Wilson Boulevard, 6<sup>th</sup> floor, Arlington, VA 22203  
[iihs.org](http://iihs.org)

# Status Report

Insurance Institute for Highway Safety | Highway Loss Data Institute



## A higher standard

39 vehicles meet new criteria for  
*TOP SAFETY PICK, TOP SAFETY PICK+*

ALSO IN  
THIS ISSUE

Vol. 48, No. 9

December 19, 2013

- Fatal crashes of ATVs on public roads
- More evidence that graduated licensing works



**F**ar fewer vehicles are winning the Institute's coveted safety awards after IIHS raised the bar to require good or acceptable performance in the small overlap front crash test for *TOP SAFETY PICK* and a front crash prevention system for *TOP SAFETY PICK+*. Just 39 vehicles earn either award for 2014, compared with 130 that took home 2013 accolades at this time last year.

"We've made it more difficult for manufacturers this year," says IIHS President Adrian Lund. "Following a gradual phase-in, the small overlap crash is now part of our basic battery of tests, and good or acceptable performance should be part of every vehicle's safety credentials. We also felt it was time to offer extra recognition to manufacturers that are offering a proven crash avoidance technology."

Last year, good or acceptable small overlap performance was required only for *TOP SAFETY PICK+*. Vehicles that lacked it could still earn *TOP SAFETY PICK*, without the plus, if they had good ratings in the Institute's other tests (see *Status Report*, Dec. 20, 2012, at [iihs.org](http://iihs.org)). For 2014 that's no longer the case. The higher award now recognizes vehicles that earn at least a basic rating for front crash prevention, in addition to meeting the *TOP SAFETY PICK* criteria. Besides good or acceptable small overlap performance, these include good performance in the longstanding moderate overlap front, side, roof strength and head restraint tests.

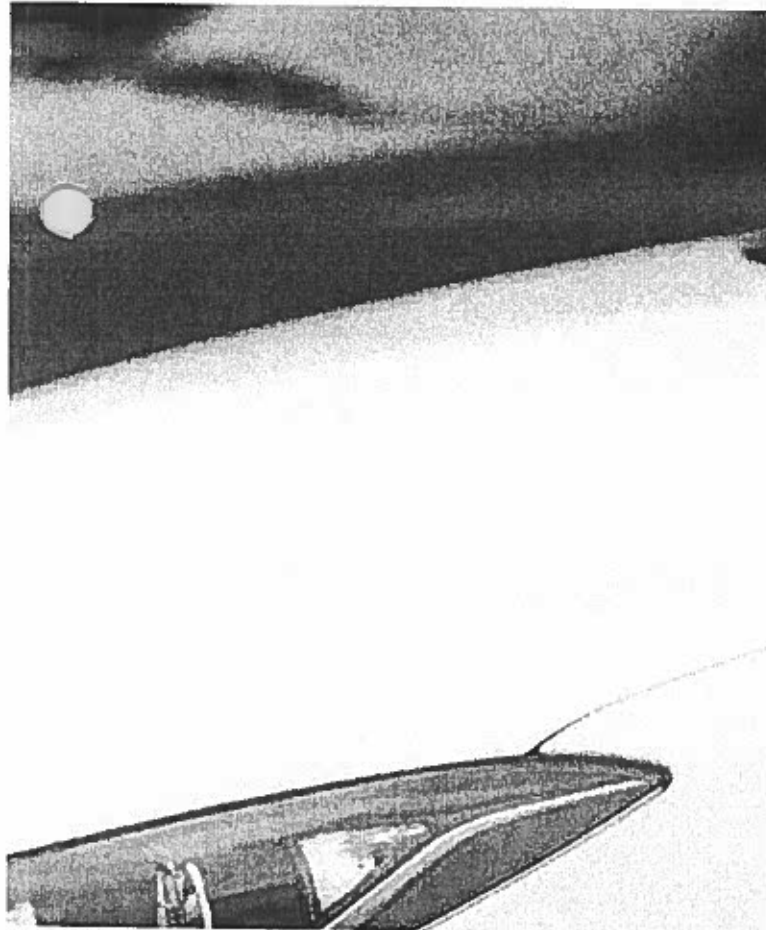
IIHS has been awarding *TOP SAFETY PICK* to vehicles that perform well in its tests since the 2006 model year and has

tightened criteria twice before this year. *TOP SAFETY PICK+* was introduced last year to reward automakers that achieved good or acceptable performance in the just-introduced small overlap test, in which 25 percent of a vehicle's front end on the driver's side strikes a rigid barrier at 40 mph. Some manufacturers quickly modified vehicles to meet this new challenge or took the new test into account as they implemented scheduled redesigns, and more have done so for 2014.

The test replicates what happens when the front corner of a vehicle collides with another vehicle or an object like a tree or utility pole. Although this type of crash is responsible for many deaths and serious injuries, it wasn't addressed by other frontal tests conducted by IIHS or the federal government (see *Status Report*, Aug. 14, 2012).

With the small overlap test now incorporated into *TOP SAFETY PICK*, IIHS is using the *TOP SAFETY PICK+* designation to reward manufacturers that provide the next level of safety. This year, that means vehicles that not only protect their occupants in a crash but also have systems that can prevent or mitigate front-to-rear crashes. Front crash prevention, which includes both warning systems and automatic braking, is intended to help inattentive drivers avoid rear-ending a stopped or slower-moving vehicle in front of them.

IIHS began rating front crash prevention systems earlier this year after NHTSA research indicated that forward collision warning and automatic braking systems are reducing crashes (see *Status Report*, Sept. 27, 2013). Vehicles can earn



2014 MAZDA 3  
INSURANCE INSTITUTE  
FOR HIGHWAY SAFETY  
CEN1346

A good rating for protection in a small overlap front crash and an advanced rating for front crash prevention qualify the Mazda 3 for **TOP SAFETY PICK+**.

	<b>TOP SAFETY PICK+</b>	<b>TOP SAFETY PICK</b>
Minicar		Chevrolet Spark
Small cars	Honda Civic 4-door Mazda 3 Toyota Prius	Dodge Dart Ford Focus Honda Civic 2-door Hyundai Elantra Scion tC Subaru Impreza Subaru XV Crosstrek
Midsize moderately priced cars	Ford Fusion Honda Accord 2-door Honda Accord 4-door Mazda 6 Subaru Legacy Subaru Outback	Chrysler 200 Dodge Avenger Kia Optima Nissan Altima Toyota Camry Volkswagen Passat
Midsize luxury/near-luxury cars	Infiniti Q50 Lincoln MKZ Volvo S60	Acura TL
Large luxury cars	Acura RLX Volvo S80	
Small SUVs	Mazda CX-5 Mitsubishi Outlander Subaru Forester	Mitsubishi Outlander Sport
Midsize SUV	Toyota Highlander	
Midsize luxury SUVs	Acura MDX Mercedes-Benz M-Class Volvo XC60	Volvo XC90
Minivan	Honda Odyssey	

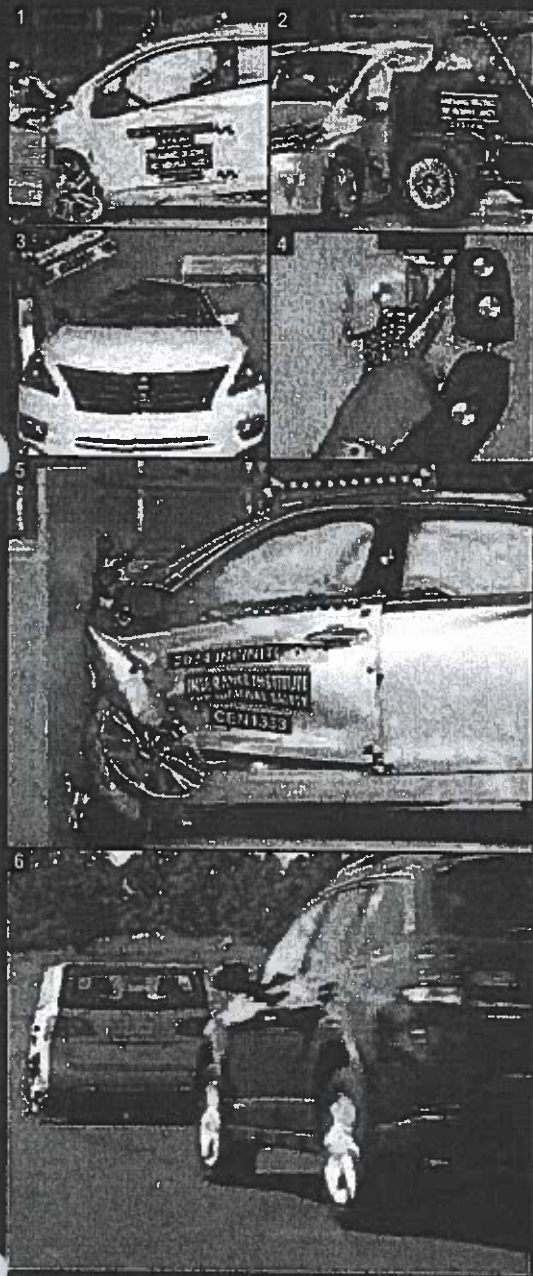
Twenty-two vehicles earn **TOP SAFETY PICK+**, thanks to a high level of protection in crashes and the availability of front crash prevention. An additional 17 earn **TOP SAFETY PICK** by meeting the crashworthiness criteria alone.



# Award criteria

To earn *TOP SAFETY PICK+*, models must achieve good ratings in the moderate overlap front (1), side (2), roof strength (3) and head restraint (4) tests, as well as a good or acceptable rating in the small overlap front test (5) and a basic, advanced or superior rating for front crash prevention (6).

Models that meet the crashworthiness criteria but don't have a front crash prevention system qualify for a *TOP SAFETY PICK* award.



basic, advanced or superior ratings for systems offered as standard or optional. A vehicle with a forward collision warning system that meets National Highway Traffic Safety Administration performance criteria qualifies for a basic rating. Additional points are awarded for autobrake, based on performance in IIHS track tests at 12 mph and 25 mph.

Front crash prevention systems have been spreading quickly through the vehicle fleet. As a result, the list of *TOP SAFETY PICK+* winners is, at 22, longer than the list of 17 regular *TOP SAFETY PICK* winners.

"Consumers who want both crash prevention technology and the latest in occupant protection have a fair number of vehicles to choose from," Lund says. "We hope manufacturers will continue to incorporate front crash prevention, developing more robust systems and adding them to more trim levels or, better yet, making them standard equipment."

The front crash prevention features of the *TOP SAFETY PICK+* winners run the gamut from basic warning systems, such as those offered on the Ford Fusion, Lincoln MKZ and Honda's four winners, to Subaru's EyeSight warning and autobrake system. EyeSight avoids a collision in tests at both 12 and 25 mph and is available on the Forester, Legacy and Outback. The Subaru and the Infiniti Q50 are the only vehicles so far to earn 6 of 6 points for front crash prevention.

Most of the *TOP SAFETY PICK+* winners qualify for the award only when equipped with optional front crash prevention systems. In the case of the Honda Civic 4-door, forward collision warning is standard on the hybrid version but not available on any other version. A Civic 4-door with a gas engine — or any vehicle on the list not equipped with front crash prevention — still would earn *TOP SAFETY PICK*.

The only other models that qualify for *TOP SAFETY PICK+* based on standard equipment are the Volvo S60, S80 and XC60. These have City Safety, a low-speed autobrake system

that on its own is enough for an advanced rating. They also are available with an optional forward collision warning and autobrake system that works at higher speeds and helps the vehicles earn superior marks for front crash prevention.

The 2014 *TOP SAFETY PICK+* winners include eight models that didn't earn the award in 2013. Among them are fully redesigned models, including the Acura MDX and RLX, Infiniti Q50, Mazda 3 and Toyota Highlander. Among *TOP SAFETY PICK* winners, the Chevrolet Spark minicar is a new model. Honda/Acura has the most winners of any automaker, with six models earning *TOP SAFETY PICK+* and two earning *TOP SAFETY PICK*.

Some winners that didn't undergo a full redesign were modified to improve small overlap performance. This includes the Toyota Camry, which now qualifies for *TOP SAFETY PICK*. The 2012-13 Camry models were rated poor for protection in a small overlap front crash, but the 2014 model earns an acceptable rating. The Toyota Prius and the Mazda CX-5 also were tweaked for the small overlap test and now earn *TOP SAFETY PICK+*. Changes to these vehicles and some others were made after the 2014 model year started.

The Volvo S80, a large luxury car, is new to the *TOP SAFETY PICK+* list because it hadn't been previously tested for small overlap performance. However, it has had the same basic design since 2007, so its good small overlap result applies to earlier models as well.

While many 2013 *TOP SAFETY PICK* winners didn't make it to the winners' circle for 2014, that doesn't mean they are any less safe than before. Vehicles that have fallen off the list have less than acceptable ratings for small overlap protection or haven't been tested yet. However, all models that earned *TOP SAFETY PICK* in 2013 continue to offer a high level of protection in four main crash types — moderate overlap front, side, rollover and rear. ■

# Small overlap, front crash prevention ratings

TOP SAFETY PICK+		small overlap test	front crash prevention
Small cars	Honda Civic 4-door		
	Mazda 3 built after October 2013		
	Toyota Prius built after November 2013		
Midsize moderately priced cars	Ford Fusion		
	Honda Accord 2-door		
	Honda Accord 4-door		
	Mazda 6		
	Subaru Legacy		
Midsize luxury/near-luxury cars	Subaru Outback		
	Infiniti Q50		
	Lincoln MKZ		
Large luxury cars	Volvo S60		
	Acura RLX		
Small SUVs	Volvo S80		
	Mazda CX-5 built after October 2013		
Midsize SUV	Mitsubishi Outlander		
	Subaru Forester		
Midsize luxury SUVs	Toyota Highlander		
	Acura MDX		
	Mercedes-Benz M-Class built after August 2013		
Minivan	Volvo XC60		
	Honda Odyssey		

TOP SAFETY PICK		small overlap test
Minicar	Chevrolet Spark	
Small cars	Dodge Dart	
	Ford Focus	
	Honda Civic 2-door	
	Hyundai Elantra	
	Scion tC	
Midsize moderately priced cars	Subaru Impreza	
	Subaru XV Crosstrek	
	Chrysler 200	
	Dodge Avenger	
	Kia Optima	
Midsize luxury/near-luxury car	Nissan Altima	
	Toyota Camry built after December 2013	
	Volkswagen Passat	
	Acura TL	
Small SUV	Mitsubishi Outlander Sport	
Midsize luxury SUV	Volvo XC90	

**Crashworthiness ratings**



**Front crash prevention ratings**



For details on individual vehicles, go to [ihs.org](http://ihs.org)

Vehicles can qualify for **TOP SAFETY PICK** or **TOP SAFETY PICK+** with a good or acceptable rating in the small overlap front test. In addition, **TOP SAFETY PICK+** winners must have a basic, advanced or superior rating for front crash prevention.

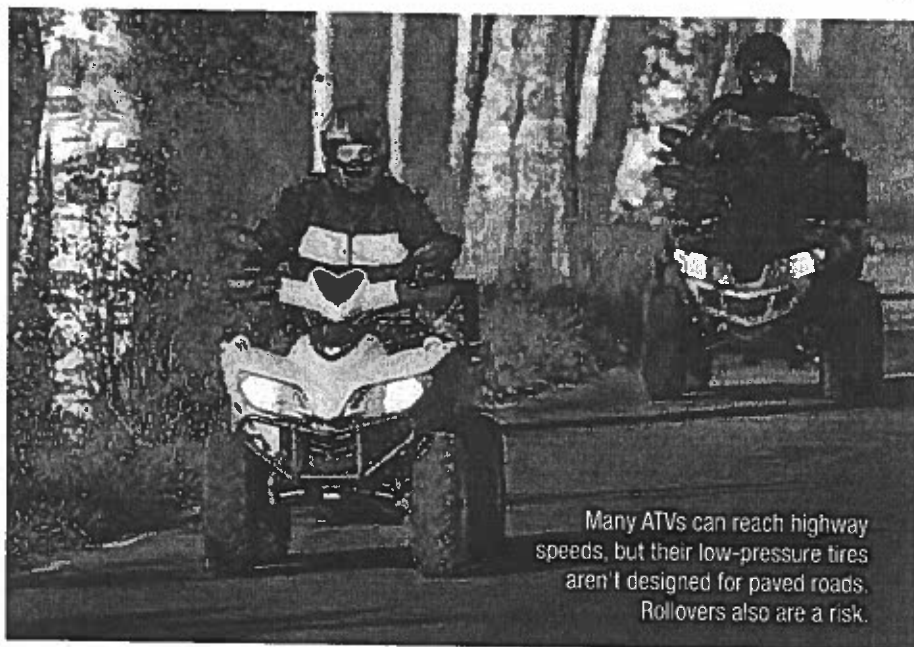


All-terrain vehicles are made for off-road use, but large numbers of people take their ATVs on public roads, where they are generally prohibited. About 1,700 ATV riders died in crashes on public roads in the United States from 2007 to 2011.

Deaths of ATV drivers and passengers have increased substantially during the past few decades, as the vehicles have risen in popularity. Today, two-thirds of fatal ATV crashes occur on public or private roads. A recent IIHS study sought to learn more about these crashes and found that the vast majority of ATV riders killed in crashes on public roads are 16 or older and male. Few fatally injured riders wear helmets, and many are impaired by alcohol.

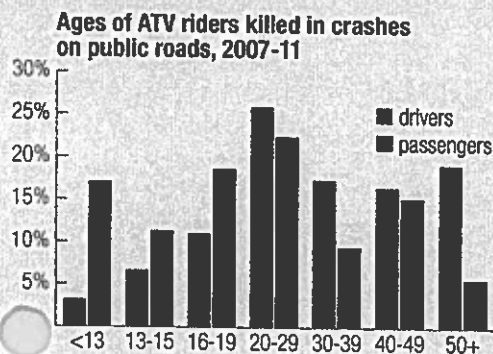
The Consumer Product Safety Commission (CPSC) conducts a yearly census of ATV rider deaths, including deaths on public roads, on private roads and off-road. Between 1986 and 1998, ATV deaths averaged 227 a year, but then increased to more than 800 in 2007, the last year for which complete CPSC data are available. In 2007, 65 percent of the deaths for which a location was identified took place on public or private roads. The agency estimates that 10.6 million ATVs were in use in the U.S. in 2010, compared with 5.6 million in 2001.

A total of 1,701 ATV riders were killed on public roads in the five-year period. Some ATVs can carry passengers, but nearly 9 out of 10 riders killed were drivers.



Many ATVs can reach highway speeds, but their low-pressure tires aren't designed for paved roads. Rollovers also are a risk.

	percent
male	90
unhelmeted	87
BAC $\geq 0.08\%$	43



Rider fatalities during the five-year period peaked in 2008, declining 19 percent by 2011. As with the recent decline in motor vehicle fatalities generally, much of the drop is believed to be connected to the recent recession.

The crashes occurred primarily in rural areas and in 49 states. No crashes occurred in New Hampshire or the District of Columbia. The highest numbers of deaths occurred in Kentucky (122), Pennsylvania (97), West Virginia (96) and Texas (95). West Virginia had by far the highest rate of ATV rider deaths (105 per 10 million people), and Wyoming was a distant second with 70.

Only 13 percent of drivers and 6 percent of passengers killed wore helmets. That compares with 46 percent of motorcyclists killed in crashes in 2011. Among fatally injured ATV drivers, 43 percent had a blood alcohol concentration of 0.08 percent or greater, compared with about one-third of passenger vehicle and motorcycle drivers.

Fatal ATV crashes are more likely than other fatal crashes to involve a single vehicle. Three-quarters of the fatal crashes in the study involved just one ATV, while only 46 percent of fatal motorcycle crashes in 2007-11 were single-vehicle crashes. Of the single-vehicle fatal ATV crashes, 56 percent involved a rollover.

Much attention has been paid to ATV fatalities among children, but in recent years most fatally injured ATV riders have been men. Ninety percent of the ATV driver deaths in the federal government's database of fatal crashes were 16 and older, and 90 percent were males.

One way to address the danger of ATVs traveling on paved surfaces might be to strengthen laws that prohibit the vehicles on public roads, since most are paved. Most states have such bans, but they have exceptions that make enforcement difficult. For example, ATVs can cross roads or ride alongside the road for a limited number of miles. Helmet laws also could be strengthened. Only eight states require all ATV operators on public roads to wear helmets. Finally, it may be possible to improve the stability of ATVs to prevent rollovers without sacrificing their off-road capabilities.

For a copy of "On-road all-terrain vehicle (ATV) fatalities in the United States" by A.F. Williams et al., email [publications@iihs.org](mailto:publications@iihs.org). ■

## Study of teen fatal crash rates adds to evidence of GDL benefits

**A** recent study adds to the evidence that graduated driver licensing (GDL) systems are working to cut fatal crashes among 16 and 17 year-olds. Researchers analyzed specific GDL components and found that permit holding periods of nine months to a year and a one-passenger limit during the intermediate license stage had the biggest benefits.

Researchers from the California Department of Motor Vehicles and the University of North Carolina used fatal crash data and population data from 1986 to 2007 to analyze the effects of various components of GDL laws across the nation.

They found that fatal crash rates for 16-17 year-olds were 21 percent lower with permit holding periods of nine to 12 months, compared with no holding period. A limit of no more than one passenger was associated with a 15 percent reduction in fatal crash rates, compared with no passenger restriction. Two other provisions — an intermediate license age of 16½ to 17 and a nighttime restriction of 10 p.m. or earlier — were associated with fatal crash rate reductions for 16 year-olds but had no significant effect on crash rates of 17 year-olds.

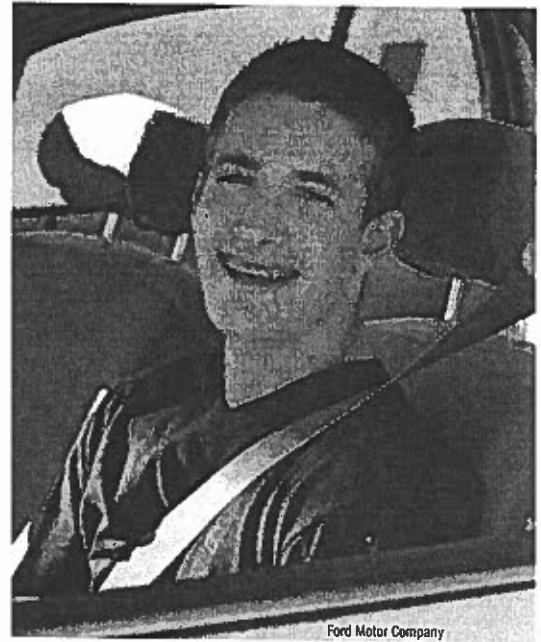
Based on earlier research by IIHS and HLDI, the Institute estimated in 2012 that if every state adopted all five components of the toughest GDL laws in the nation, more than 500 lives could be saved and more than 9,500 collisions could be prevented each year (see *Status Report*, May 31, 2012, at [iihs.org](http://iihs.org)). A calculator at [iihs.org/gdl](http://iihs.org/gdl) allows users to see how adjusting any of the five provisions — permit age, practice hours, license age, night driving and passenger limits — could affect collision insurance claim rates and fatal crash rates among 15-17 year-olds in a given state.

In the latest study, the researchers found that minimum learner permit holding periods reduced fatal crash rates if they lasted at least five months, but holding periods of nine to 12 months were associated with much bigger reductions. The holding period may help by increasing the time the teenager is driving with supervision and providing young drivers with more practice time, the authors suggest. The IIHS study found no additional benefit from a holding period, once practice hours and the effect of the holding period on licensing age were taken into account.

When it comes to passenger restrictions, the study found that a limit of one teen passenger resulted in a greater reduction of fatal crash risk than complete bans on passengers. The authors hypothesize that young drivers are more likely to comply with a one-passenger limit than an outright ban. However, in the IIHS study, total bans on passengers were found to be more effective than one-passenger limits.

The study also found that a licensing age of 16½ or 17 resulted in the lowest fatal crash rates for 16 year-olds, likely because it resulted in fewer 16 year-olds driving unsupervised (or very few in the case of 17). A night driving restriction of 10 p.m. or earlier reduced fatal crash rates of 16 year-olds by 19 percent.

"Graduated driver licensing program component calibrations and their association with fatal crash involvement" by S.V. Masten et al., appears in the August 2013 issue of *Accident Analysis and Prevention*. ■



Ford Motor Company

# Status Report

Top IIHS safety accolades for 2014 go to 39 models meeting tougher criteria ▶ 2

How vehicles rate for small overlap crash protection and front crash prevention ▶ 5

Many fatal all-terrain vehicle crashes take place on public roads ▶ 6

More evidence of GDL's benefits ▶ 7

Vol. 48, No. 9  
December 19, 2013

1005 N. Glebe Road  
Arlington, VA 22201 USA  
t 703/247-1500  
f 703/247-1588

Inquiries/print subscriptions:  
StatusReport@iihs.org

Copy may be republished with attribution. Images require permission to use.

Editor: Kim Stewart  
Writer: Sarah Karush  
Art Director: Steve Ewens

 [www.iihs.org](http://www.iihs.org)

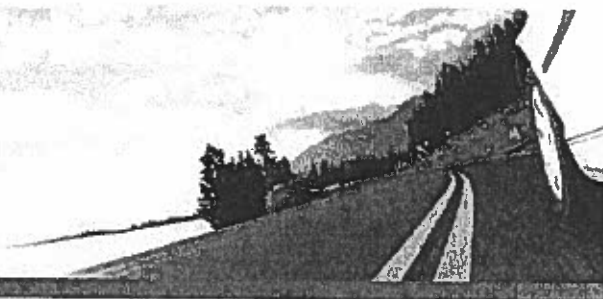
 [iihs.org/rss](http://iihs.org/rss)

 [youtube.com/IIHS](http://youtube.com/IIHS)

 [@IIHS\\_autosafety](https://twitter.com/IIHS_autosafety)

 [m.iihs.org](http://m.iihs.org)

 This publication is printed on recycled paper.



The **Insurance Institute for Highway Safety** is an independent, nonprofit scientific and educational organization dedicated to reducing the losses — deaths, injuries and property damage — from crashes on the nation's roads.

The **Highway Loss Data Institute** shares and supports this mission through scientific studies of insurance data representing the human and economic losses resulting from the ownership and operation of different types of vehicles and by publishing insurance loss results by vehicle make and model.

Both organizations are wholly supported by the following auto insurers and funding associations:

## MEMBER GROUPS

Acceptance Insurance	Kemper Preferred
ACE Private Risk Services	Kentucky Farm Bureau Insurance
Affirmative Insurance	Liberty Mutual Insurance Company
Agency Insurance Company of Maryland	Louisiana Farm Bureau Mutual Insurance Company
Alfa Alliance Insurance Corporation	Maryland Automobile Insurance Fund
Alfa Insurance	Mercury Insurance Group
Allstate Insurance Group	MitLife Auto & Home
American Family Mutual Insurance	Michigan Millers Mutual Insurance Company
American National Family of Companies	MiddleOak
Ameriprise Auto & Home	Mississippi Farm Bureau Casualty Insurance Company
Amica Mutual Insurance Company	MMG Insurance
ARI Insurance Companies	Mutual of Enumclaw Insurance Company
Auto Club Enterprises	Nationwide
Auto Club Group	New Jersey Manufacturers Insurance Group
Auto-Owners Insurance	Nodak Mutual Insurance Company
Aviva Insurance	Norfolk & Dedham Group
Bankers Insurance Group	North Carolina Farm Bureau Mutual Insurance Company
Bituminous Insurance Companies	Northern Neck Insurance Company
California Casualty Group	Ohio Mutual Insurance Group
Capital Insurance Group	Old American County Mutual Fire Insurance
Chubb & Son	Old American Indemnity Company
Colorado Farm Bureau Mutual Insurance Company	Oregon Mutual Insurance
Commonwealth Mutual Insurance Company of America	Pekin Insurance
Concord Group Insurance Companies	PEMCO Insurance
Cotton States Insurance	Plymouth Rock Assurance
COUNTRY Financial	Progressive Corporation
CSAA Insurance Group	The Responsive Auto Insurance Company
CSE Insurance Group	Rockingham Group
Dallas National Insurance Company	Safeco Insurance Companies
Direct General Corporation	Safe Auto Insurance Company
Driver's Insurance Group	Samsung Fire & Marine Insurance Company
Erie Insurance Group	SECURA Insurance
Esurance	Sentry Insurance
Farm Bureau Financial Services	Sheller Insurance
Farm Bureau Insurance of Michigan	Sompo Japan Insurance Company of America
Farm Bureau Mutual Insurance Company of Idaho	South Carolina Farm Bureau Mutual Insurance Company
Farmers Insurance Group of Companies	Southern Farm Bureau Casualty Insurance Company
Farmers Mutual Hail Insurance Company of Iowa	State Auto Insurance Companies
Farmers Mutual of Nebraska	State Farm Insurance Companies
Fireman's Fund Insurance Company	Tennessee Farmers Mutual Insurance Company
Florida Farm Bureau Insurance Companies	Texas Farm Bureau Insurance Companies
Frankenmuth Insurance	Tower Group Companies
Gainsco Insurance	The Travelers Companies
GEICO Corporation	United Educators
Georgia Farm Bureau Mutual Insurance Company	USAA
Goodville Mutual Casualty Company	Utica National Insurance Group
Grange Insurance	Virginia Farm Bureau Mutual Insurance
Hallmark Insurance Company	West Bend Mutual Insurance Company
Hanover Insurance Group	Westfield Insurance
The Hartford	Young America Insurance Company
Haulers Insurance Company, Inc.	Zurich North America
Horace Mann Insurance Companies	
ICW Group	
Imperial Fire & Casualty Insurance Company	
Indiana Farmers Mutual Insurance Company	
Infinity Property & Casualty	

## FUNDING ASSOCIATIONS

American Insurance Association  
National Association of Mutual Insurance Companies  
Properly Casualty Insurers Association of America



## On-road all-terrain vehicle (ATV) fatalities in the United States

Allan F. Williams<sup>a</sup>, Stephen L. Oesch<sup>b,\*</sup>, Anne T. McCartt<sup>c</sup>, Eric R. Teoh<sup>c</sup>, Laurel B. Sims<sup>c</sup>

<sup>a</sup> Allan F. Williams, LLC

<sup>b</sup> Stephen L. Oesch, LLC

<sup>c</sup> Insurance Institute for Highway Safety, USA



### ARTICLE INFO

#### Article history:

Received 6 January 2014

Received in revised form 11 April 2014

Accepted 1 May 2014

Available online 20 May 2014

#### Keywords:

All-terrain vehicles

Fatalities

Alcohol-impaired driving

Rollover

Helmet use

### ABSTRACT

**Background:** The study was designed to describe the characteristics of all-terrain vehicle (ATV) rider fatalities and fatal crashes involving ATVs that occur on public roads. **Methods:** Information on fatal crashes occurring on public roads during the years 2007–2011 was obtained from the Fatality Analysis Reporting System (FARS). **Results:** There were 1,701 ATV rider deaths during the 5-year study period, including 1,482 drivers, 210 passengers, and 9 with unknown rider status. An additional 19 non-ATV occupants, primarily motorcyclists, died in crashes with ATVs. About half of the ATV passenger deaths were teenagers or younger, and the majority of passenger deaths were female. Ninety percent of the fatally injured drivers were 16 or older, and 90% were male. The crashes were most likely to occur in relatively rural states, and in rural areas within states. Only 13% of drivers and 6% of passengers killed wore helmets. Forty-three percent of the fatally injured drivers had blood alcohol concentrations (BACs) of 0.08% or greater. Seventy-five percent of the fatal crashes involved single ATVs; 5% involved multiple ATVs but no non-ATV vehicles, and 20% involved ATVs and non-ATVs, usually passenger vehicles. Speeding was reported by police as a contributing factor in the crash for 42% of ATV drivers in single-vehicle crashes and 19% of ATV drivers in multiple-vehicle crashes. **Practical applications:** Although ATVs are designed exclusively for off-road use, many ATV occupant deaths occur on roads, despite most states having laws prohibiting many types of on-road use. Attention needs to be given to ways to reduce these deaths.

© 2014 National Safety Council and Elsevier Ltd. All rights reserved.

### 1. Introduction

All-terrain vehicles (ATVs) are gasoline or diesel-powered motorized vehicles, with oversize, low-pressure tires. Some ATVs have a straddle seat for the operator, and handlebars for steering control. Others, often called a side-by-side ATV, a recreational off-highway vehicle, or Utility Terrain Vehicle (UTV) have a bench seat or bucket seats for the driver and passengers and a car-like wheel for steering. ATVs are designed for travel off road on unpaved surfaces, and are primarily used for recreation. They also are used for some work-related purposes, for example, farming, and policing and patrolling public lands, where various terrains have to be navigated. In some rural and remote areas they serve general transportation purposes (U.S. Government Accountability Office, 2010). UTVs are a growing segment of the ATV market, but little data are available on the number of fatalities in those vehicles. ATVs were introduced in the United States in the early 1970s. Their popularity has increased markedly since that time, accompanied by concerns about the crashes and injuries that resulted, especially in regard to those younger than 16 (American Academy of Pediatrics, 2000; U.S. Government Accountability Office,

2010). The Consumer Product Safety Commission (CPSC), the federal agency responsible for regulating the safety of ATVs, conducts a yearly census of ATV rider deaths that occur on public roads, private roads, and off road. Counts are based on death certificates and a variety of other sources (CPSC, 2013). CPSC reports that it only includes straddle-type ATVs in its database and excludes UTVs. The CPSC dataset, obtained by the authors, indicates that between 1986 and 1998, ATV rider deaths averaged 227 per year but increased rapidly thereafter to more than 800 in 2007, the last year for which CPSC data are complete. Only limited exposure data are available, but CPSC estimates that there were 10.6 million ATVs in use in the United States in 2010, compared with 5.6 million in 2001 (CPSC, 2013).

ATVs are not intended for on-road use and have design features that can increase risk when operated on paved surfaces (Specialty Vehicle Institute of America, 2013; U.S. Government Accountability Office, 2010). However, the majority of ATV rider deaths now occur on roads. State studies report that 57% of ATV rider fatalities in Iowa during 1982–2009 took place on public or private roads, and nearly two-thirds of the ATV rider fatalities in West Virginia during 2005–2007 occurred on public roads (Denning, Jennissen, Hartland, Ellis, & Buresh, 2013b; Helmkamp, Ramsey, Hass, & Holmes, 2008). Analysis of the CPSC data indicates that in 2007, for the 93% of ATV rider deaths for which location was identified, 492 (65%) of the 758 deaths occurred on public and private roads. Moreover, there has been a greater increase in on-road than in off-road deaths in recent years.

\* Corresponding author at: 5616 Ogden Road, Bethesda, MD 20816, USA. Tel.: +1 301 229 4692.

E-mail address: [stephen.oesch@gmail.com](mailto:stephen.oesch@gmail.com) (S.L. Oesch).

Between 1998 and 2007, on-road deaths increased from 128 to 492 (284%); off-road deaths increased from 110 to 266 (155%).

There also has been an age shift in ATV rider deaths, with decreasing proportions of those younger than 16 involved. CPSC data indicate that the percentage of ATV rider deaths younger than 16 ranged between 23 and 28% during 1999–2004 but between 14 and 17% during 2006–2011 (2008–2011 data are preliminary; CPSC, 2013). This trend appears related to the increasing proportions of ATV rider deaths that take place on roads. In a study based on CPSC data, there was a smaller proportion of ATV rider deaths younger than 16 in on-road compared with off-road crashes (Denning, Harland, Ellis, & Jennissen, 2013a).

Studies of ATV operators killed in crashes have found evidence of low helmet use and significant alcohol involvement (Denning et al., 2013a; Denning et al., 2013b; Hall, Bixler, Helmkamp, Kraner, & Kaplan, 2009; Lord, Tator, & Wells, 2010). In the Denning et al. (2013a) study based on CPSC data, lower helmet use and higher alcohol use were found more often in on-road than in off-road fatalities. However, alcohol information was available only for a subset of the drivers, a limitation of other studies as well (U.S. Government Accountability Office, 2010).

Regulations and laws and their enforcement are important ways of attempting to reduce ATV crashes, especially those occurring on public roads. CPSC regulations have included a ban on the sale of three-wheeled ATVs and the requirement that manufacturers must put labels on ATVs, warning that they should not be used on paved roads, that DOT-compliant motorcycle helmets should be worn, and that ATV operators should not carry passengers (which adds to vehicle instability).

States have the authority to adopt laws governing ATV use. Based on a search of state laws, using the Lexis Research System, Appendix A provides information about when ATVs can be used on the road, who must wear helmets, and when passengers are permitted.

Most states prohibit the use of ATVs on public roads, except for specific uses. Some of the most common permitted on-road uses of ATVs are: they can cross a road to move from one trail or field to another; can be used in work-related operations, such as utility maintenance, law enforcement, emergency services, or land surveying; and can be used when allowed by local ordinances.

Eight states require all ATV operators on public roads to wear helmets; 4 states require all ATV operators on public lands to wear helmets; 8 states have age-related helmets laws, which usually apply to riders younger than 18; and two states require some riders on public roads to wear helmets but make exceptions for riders engaged in farming. Most of these laws also pertain to passengers. Thirteen states have laws prohibiting passengers, but allow them for UTVs.

The objective of the present study was to extend findings from the limited number of prior studies that have addressed on-road ATV rider deaths. The study is based on information in the Fatality Analysis Reporting System (FARS), a census of fatal motor vehicle crashes on public roads, which has not been used in prior ATV studies. The CPSC data are limited in information about the crash events and driver actions, whereas FARS has extensive information on these factors, based on on-scene and follow-up investigations by police officers and other information. FARS, unlike CPSC, also provides information on blood alcohol concentrations (BACs) for all ATV drivers. The analyses of FARS data may suggest opportunities for intervention.

A historical look at ATV rider fatalities in FARS indicates that there were 35 driver or passenger on-road fatalities in 1982, the first year they were explicitly identified. ATV rider deaths increased to more than 300 yearly beginning in 2003 and reflect the shift to older ages of fatally injured ATV riders. In 1982, 54% of the 35 ATV riders killed were younger than 20, compared with 19% of the 305 riders killed in 2011 (Insurance Institute for Highway Safety, 2013a).

The present analyses were based on fatal crashes during the years 2007–2011, the most recent year for which FARS data are currently available. As explained below, the results presented in this paper are based primarily on data for straddle-type ATVs, although in some

cases UTVs may have been coded as straddle-type ATVs. This provides a contemporary portrayal of ATV rider crash deaths on public roads in the United States.

## 2. Methods

Information on ATV rider deaths and their crashes on public roads was extracted from FARS for the 5-year 2007–2011 period. FARS uses body type code 90 for ATVs, which FARS specifies as those including three or four wheels. In addition to straddle-type ATVs, UTVs may have been coded as body type 90 by state FARS analysts during the study years. The vehicle identification numbers (VINs) could be decoded for 51% of the vehicles in this study. And of those VINs, 94% were straddle-type ATVs.

FARS includes data on all motor vehicle crashes that occur on public traffic ways and in which a death occurred within 30 days of the crash. Information on the crash and the people involved is based on police crash reports, death certificates, coroner/medical examiner reports, and other state data sources.

All states and the District of Columbia have laws making it illegal to drive a motor vehicle on a public road with a BAC of 0.08% (0.08 g alcohol per 100 ml blood) or higher. Since 1982, FARS has included information on the BACs of all drivers. BACs are based on blood alcohol chemical tests or, if test results are missing, an imputed BAC value, based on crash characteristics known to be related to alcohol use (Subramanian & Utter, 2003). Fatally injured drivers with known BACs were examined, and the results were essentially the same.

For most variables, the data are presented for fatally injured drivers and passengers (state, ages, helmet use, sex, time of day, day of week, month, urban/rural, and road type). BACs are presented for fatally injured ATV drivers only. The number of fatal crashes involving ATVs is displayed for the following: the number and type of vehicles involved (e.g., one ATV, two ATVs, one ATV, and one non-ATV); the first harmful event (e.g., striking a tree); crash configuration (e.g., ATV rear ended by passenger vehicle); speed limit; and the specific location of the crash (e.g., on road, on shoulder). FARS also provides driver contributing factors (e.g., speeding, not keeping in proper lane), based on police judgments, for each driver and a vehicle maneuver (e.g., turning left) for each vehicle. FARS also has a "roadway surface type" variable, which indicates if the road is paved or unpaved. Based on the FARS roadway function class variable for both rural and urban roadways, the study combined the following as minor roads: minor collector, local road, collector, and local road. For major non-interstate roads, the study combined principal arterial, minor arterial, major collector, and other principal arterial and minor arterial.

## 3. Results

### 3.1. Driver and passenger deaths and their characteristics

There were 1,701 ATV rider deaths reported in FARS during 2007–2011: 368 in 2007, 377 in 2008, 335 in 2009, 316 in 2010, and 305 in 2011. The 1,701 deaths included 1,482 drivers (87%), 210 passengers (12%), and 9 people (1%) for whom rider type was not known. In crashes in which rider type was known, 1,450 (87%) involved driver deaths only, 177 (11%) involved passenger deaths only, and in 32 crashes (2%) both drivers and passengers were killed (32 drivers, 33 passengers).

ATV rider fatalities occurred in every state during 2007–2011, except the District of Columbia and New Hampshire. The most deaths occurred in Kentucky (122), Pennsylvania (97), West Virginia (96), and Texas (95). Table 1 shows the numbers of ATV rider deaths and death rates per population for all the states and the District of Columbia, ranked from highest to lowest death rate. The top 10 states based on death rates were West Virginia (104.9 per 10 million), Wyoming (69.6), Kentucky (56.7), Montana (47.1), Idaho (36.3), Vermont (35.3),



**Table 1**  
ATV rider deaths on public roads and rate of deaths per 10 million people by state during 2007–2011 by state.

State	ATV rider deaths	Rate of deaths per 10 million people
West Virginia	96	104.9
Wyoming	19	69.6
Kentucky	122	56.7
Montana	23	47.1
Idaho	28	36.3
Vermont	11	35.3
Arkansas	50	34.6
Mississippi	47	31.9
North Dakota	10	30.4
Alaska	10	28.6
Maine	16	24.2
Alabama	55	23.3
Missouri	69	23.2
Tennessee	67	21.3
Nebraska	17	18.8
Louisiana	40	17.9
Oklahoma	33	17.8
Iowa	26	17.2
Arizona	52	16.1
Pennsylvania	97	15.4
Wisconsin	43	15.2
Utah	20	14.5
Minnesota	38	14.4
Kansas	19	13.5
New Mexico	13	12.9
Georgia	62	12.8
South Dakota	5	12.3
Ohio	65	11.3
Michigan	52	10.4
Oregon	19	10.0
Florida	74	8.0
Texas	95	7.7
Washington	24	7.2
North Carolina	29	6.2
Hawaii	4	6.1
Illinois	39	6.1
New York	58	6.0
Delaware	2	4.5
California	79	4.3
Virginia	17	4.3
Indiana	12	3.7
South Carolina	8	3.5
Maryland	9	3.2
Nevada	4	3.0
New Jersey	13	3.0
Connecticut	5	2.8
Rhode Island	1	1.9
Colorado	2	0.8
Massachusetts	2	0.6
District of Columbia	0	0.0
New Hampshire	0	0.0
Total	1,701	11.2

Arkansas (34.6), Mississippi (31.9), North Dakota (30.4), and Alaska (28.6). Seven of these states were among the 10 states with the highest percentages of the population living in rural areas in 2010 (U.S. Bureau of the Census, 2010).

**Table 2**  
Age distribution of fatally injured ATV riders on public roads during 2007–2011.

Age (years)	Driver percent (N = 1,482)	Passenger percent (N = 210)	Total percent (N = 1,701) <sup>a</sup>
<13	3.2	17.1	4.9
13–15	6.7	11.4	7.3
16–19	11.1	18.6	12.1
20–29	25.9	22.4	25.6
30–39	17.4	9.5	16.5
40–49	16.5	15.2	16.3
50+	19.2	5.7	17.4

<sup>a</sup> Includes unknown driver/passenger status.

Age distributions of fatally injured ATV riders are presented in Table 2. Ninety percent of the drivers were 16 or older. Almost half of the passengers were either teenagers (19%) or younger (28%).

Overall, 84% of fatally injured ATV riders were male. However, the majority of passenger deaths (55%) were female, whereas 90% of the driver deaths were male. Males 16 and older constituted 82% of all drivers killed.

ATV rider deaths were most likely to occur in June, July, and August. Almost half of the deaths occurred on Saturdays (28%) and Sundays (22%), and about half (49%) took place between 3 p.m. and 9 p.m. Twenty-eight percent occurred during the nighttime hours 9 p.m. to 6 a.m.

Table 3 provides information on the road type and land use (rural or urban) for ATV rider fatalities. Eighty-six percent occurred on rural roads, and 76% occurred on minor roads. Sixty-five percent took place on minor roads in rural areas.

Information on helmet use was missing for 3% of the fatally injured drivers and 3% of the fatally injured passengers. For fatally injured riders with known helmet information, few were reported to have used them. The rate of helmet use was 12% overall, 13% for drivers, and 6% for passengers.

Table 4 presents BAC distributions for fatally injured drivers by age group. Overall 43% of fatally injured drivers had BACs at or above 0.08%. BACs of 0.08% or higher were most prominent at ages 30–39 (62%) and 40–49 (67%). Thirty percent of all fatally injured drivers had very high BACs of 0.15% or more.

### 3.2. Characteristics of the crashes

Table 5 provides the distribution of fatal ATV crashes by the number of ATVs and non-ATV vehicles involved. In all, there were 1,675 fatal crashes involving ATVs during 2007–2011. Three-quarters of the crashes involved one ATV only. One in five involved collisions between ATVs and non-ATVs, generally cars, SUVs, or pickups. In most instances, these crashes involved a single ATV and a single non-ATV vehicle. Although these crashes usually involved the death of an ATV rider, 19 of these deaths were not ATV riders, including 15 motorcyclists, 3 car occupants, and 1 “other.” Five percent of the crashes involved ATVs colliding with each other and no other vehicles.

In 47% of the 1,260 crashes involving a single ATV and no other vehicles, the first harmful event was the ATV striking something, most often trees (20%) but also ditches, embankments, utility poles, fences, or a variety of other fixed objects. In 31% of the crashes, the ATV rolled/overturned as the first harmful event. However, FARS also indicates if a rollover occurred at any point during the crash sequence of a vehicle, and in total, 56% of the fatal single-vehicle ATV crashes involved rollover. Separately, in 5% of the crashes, it was reported that the operator fell off the vehicle.

Rollover also occurred in the crashes in which ATVs collided with other vehicles. Of the 523 ATVs involved in multiple-vehicle fatal crashes, 25% were said to have overturned.

There were 245 fatal crashes involving one ATV and one passenger vehicle, and in 212 crashes the impact points for the two colliding

**Table 3**  
Percentage distributions of fatally injured ATV riders on public roads during 2007–2011 by road type and land use.

Road type	Land use			
	Urban	Rural	Unknown	Total (N = 1,701)
Interstate	0	0.1	0	0.1
Non-interstate major road	2.4	18.9	0	21.3
Minor road	10.9	64.7	0	75.6
Unknown roads	0.1	2.5	0.5	3.1
Total	13.3	86.1	0.5	100

Table 4

Percentage distribution of blood alcohol concentrations (BACs) of fatally injured ATV drivers on public roads during 2007–2011, by driver age.

Driver age (years)	Number of driver deaths	Percent of drivers with BACs $\geq 0.08\%$	Percent of drivers with BACs $\geq 0.15\%$
<13	47	<1	0
13–15	99	4.5	1.8
16–19	165	13.9	7.0
20–29	384	48.6	32.5
30–39	258	62.5	42.3
40–49	245	66.6	48.3
50+	284	37.0	29.3
Total	1,482	43.4	30.3

vehicles were known. Of these 212 crashes, 91 (43%) were front-to-side, 74 (35%) were front-to-front, and 41 (19%) were front-to-rear. Of the front-to-side crashes, 64% involved a passenger vehicle colliding into the side of an ATV; 36% involved an ATV colliding into the side of a passenger vehicle. Most (80%) of the rear-end crashes involved a passenger vehicle rear-ending an ATV.

Speed limits were unknown for 15% of the fatal ATV crashes. Where known, the limits were 10–35 mph at 43% of the crash locations, 40–50 mph at 17% of the locations, and 55 mph or greater at 41% of the locations.

Table 6 indicates the part of the roadway on which the fatal crashes occurred. The codes are based on the location of the first harmful event, so that if, for example, an ATV went off the road and hit a tree, the location would be coded as off-roadway. The most frequent crash location was on the road itself (47%). At least 40% occurred in locations immediately alongside the road, such as the shoulder, parking lane, or median. Among crashes occurring on-road, the surface was paved in 73% of the cases. Ten percent were on slag, gravel, or stone roads, 11% were on dirt roads, and the composition of the road was unknown in 6% of the crashes.

Fifty-one percent of the fatal crashes with the first harmful event occurring on the roadway involved collisions of ATVs with at least one other vehicle. These types of multiple-vehicle collisions occurred in less than 1% of the crashes for which the first harmful event occurred off the roadway.

### 3.3. Driver actions

There were 1,772 ATV drivers in the 1,675 fatal crashes. In terms of driver actions, 56% were said to be going straight, 27% negotiating a curve, 4% turning left, 2% turning right, and all other actions were performed by less than 2% of drivers.

The most frequently cited driver contributing factor for the 1,260 ATV operators in single-vehicle crashes was going too fast for conditions or exceeding the speed limit (42%). Eighteen percent were reported not to be in the proper lane, 10% were operating the vehicle in a careless or erratic manner, and 5% were overcorrecting. For all ATV drivers in multiple-vehicle crashes, 19% were reported to be speeding or going too fast for conditions, 19% failed to yield the right of way, 11% did not keep in the proper lane, and 9% disobeyed a traffic signal. For all ATV

Table 5

Percentage distribution of the number and type of vehicles involved in fatal ATV crashes on public roads during 2007–2011 by number of ATVs and non-ATVs involved.

Number of ATVs and non-ATVs	N = 1,675
Single ATV	75.2
Two ATVs	5.2
Three ATVs	0.1
One ATV and one non-ATV	18.7
One ATV and multiple non-ATVs	0.5
Multiple ATVs and One or more non-ATVs	0.3

Table 6

Percentage distribution of fatal ATV crash locations during 2007–2011 in relation to trafficway, 2007–2011.

Relationship to trafficway	N = 1,675
On road	46.5
Off-road — roadside, shoulder, parking lane/zone, median	40.3
Off road — location other/unknown	13.2

drivers combined, 6% were reported by the police to be operating a vehicle on a prohibited roadway.

### 4. Discussion

ATV rider fatalities on public roads have increased substantially since 1982, reflecting in part an increase in exposure. During this period, ATVs with greater horsepower have become increasingly available, according to sales data and CPSC data. However, because many of the ATV VINs in FARS could not be decoded, it was not possible to examine the role of engine size or horsepower (among ATVs with decodable VINs, 94% were straddle-type). It has been noted that the increasing numbers and proportions of ATV rider fatalities on public roads may be due to the proliferation of ATVs capable of roadway speeds (Denning et al., 2013a). This is speculative, although the high proportions of ATV operators reported to be speeding is suggestive in this regard.

However, the upward trend in ATV rider fatalities on public roads has halted, at least temporarily. During the 5-year period 2007–2011 included in the present study, ATV rider fatalities in FARS peaked in 2008, and then declined by 19% from 2008 to 2011. Recent declines in ATV rider non-fatal injuries have also been reported (Shults, West, Rudd, & Helmkamp, 2013). Overall motor vehicle deaths have also declined substantially in recent years, dropping by 22% since 2007. This trend is thought to be due largely to the severe economic decline that occurred beginning in 2008 (Longthorne, Subramanian, & Chen, 2010; Sivak, 2008), which also may have affected ATV rider fatalities. According to industry reports, sales of straddle-type ATVs fell from 752,000 units in 2007 to 289,000 units in 2012. In contrast, sales of UTVs increased nearly 23% from 2007 to 2012, to 166,449 units (Republican American, 2013). CPSC reports that when UTVs were first offered in 1998, fewer than 2,000 were sold (74 FR 55496).

FARS includes crashes on public roads in which one or more deaths occur within 30 days, whereas CPSC counts include deaths that occur on both private and public roads and deaths that occur beyond 30 days. According to the U.S. Bureau of the Census (2012), 6% of motor vehicle crash deaths in 2009 occurred between 30 days and 1 year of the crash. CPSC data indicate that in 2007 (the last year for which complete CPSC data are available), 492 ATV rider deaths occurred on roads: 375 on public roads, 51 on private roads, and 66 on roads of unknown type. Assuming that deaths on roads of unknown type are split according to the proportions occurring on public versus private roads in known cases, and subtracting estimated crash deaths occurring beyond 30 days, the CPSC adjusted number of deaths on public roads within 30 days in 2007 would be roughly 408, compared with 368 based on FARS. The CPSC count does not include any of the 61 deaths in 2007 where it was not known whether the deaths occurred on or off road, and some of these may have occurred on public roads. One possible reason for the discrepancy between FARS and CPSC is that FARS may miss some deaths, presumably those occurring in single-vehicle ATV crashes. It is also possible that some ATVs are not classified as ATVs in FARS. Another possibility is that CPSC misclassifies some roads as public, or misclassifies some off-road locations as roads.

ATV crashes are primarily a rural phenomenon (Killingsworth et al., 2005; Rodgers, 2008). ATV exposure is known to be high in rural areas, per capita fatality rates were highest in rural states, and fatal crashes most commonly occurred in rural areas within states. West Virginia

stands out as having by far the highest per capita on-road ATV rider fatality rate.

ATV rider fatalities primarily occur in single ATV events, mostly involving collisions with fixed objects such as trees, or rollovers, and often excessive speed, according to the judgment of investigating officers. Overall, about half of the first harmful collision events took place on roads rather than alongside them, including all of the collisions of ATVs and passenger vehicles, which primarily involved front-to-side impacts or head-on collisions.

In addressing ATV crashes and injuries, major attention has been and continues to be given to those younger than 16 (Blecker et al., 2012; Bowman & Aitken, 2010; Helmkamp, 2000; Rodgers, 1993; Shults et al., 2013). In the present study, those younger than 16 were often involved as passengers, but ATV driver deaths on public roads are mostly adults, particularly males. Nine out of 10 drivers killed were 16 or older; more than 8 out of 10 were males of these ages.

As in other ATV studies, alcohol use and low helmet use were prominent. Only about 1 in 10 fatally injured ATV riders were wearing helmets, and 43% of the drivers were at or beyond BACs of 0.08%. This exceeds the percentage of fatally injured passenger vehicle drivers (33% in 2011), or motorcyclists (30%) with BACs of 0.08% or higher in 2011 (Insurance Institute for Highway Safety, 2013b). If drivers 20 and older are examined, more than half (53%) had illegal BACs, and 37% had BACs that were 0.15% or higher. Reducing alcohol-impaired driving among ATV drivers is a logical target in attempting to reduce deaths associated with ATV use, but it is not clear how this can be accomplished. ATV drivers on public roads already are subject to the same driving-while-impaired laws that apply to other motor vehicle operators.

There are several potential approaches for reducing or mitigating ATV crashes and injuries. Rider education and training programs are in wide use, but their effectiveness has never been formally established. Training programs involving automobile or motorcycle use have not been shown to reduce crashes (Christie, 2001; Kardamanidisk, Martiniuk, Ivers, Stevenson, & Thistlethwaite, 2010), and education through pamphlets, warning labels, or public service announcements, typically does not result in behavior change (National Cooperative Highway Research Program, 2007).

Absence of laws, weaknesses in those that exist, and enforcement challenges hamper law-based approaches to protecting ATV riders. Some states do not have laws addressing any of the three activities warned against on ATV labels — on-road use, helmets, and passenger presence. State laws prohibiting on-road use have many exceptions, and it is not clear how well these laws are understood by ATV operators and the police. In this context it is notable that only 6% of ATV drivers in fatal crashes on public roads were reported by the police to be on roads on which they were prohibited. It is unknown to what extent this information is accurate. Many states allow ATVs to cross public roads, and it may be difficult to determine whether the drivers were, in fact, violating the law. The majority of laws requiring helmet use by ATV operators apply only to young people. The majority of state motorcycle helmet use laws also apply only to young people. Age-specific helmet use laws have been found to be ineffective in increasing helmet use or reducing death rates in younger or older populations (Houston & Richardson, 2007, 2008; Kyrychenko & McCartt, 2006; U.S. Government Accounting Office, 1991; Weiss, Agimi, & Steiner, 2010).

There is limited information on law compliance among ATV operators. The amount of enforcement of the laws, which is key to their success, is also largely unknown. There are manpower challenges in enforcing ATV laws in rural areas, and exceptions to the laws can make it difficult to know if a violation has occurred or not. For example, West Virginia's law in regard to on-road travel allows travel on the side of the road not to exceed 10 miles.

There does appear to be some public support for legislation. A telephone survey of registered voters in Ohio found that 78% were in favor of helmet use laws for ATV riders, and 81% favored passenger restrictions (Stolz, McKenzie, Mehan, & Smith, 2009). A statewide survey

in West Virginia found that 77% supported a ban on using ATVs on public roads (Helmkamp et al., 2008). However, there is little information regarding the views of ATV operators about such laws. Focus groups of ATV riders have indicated that the discomfort and inconvenience of helmets and the perceived lack of need for them discourage their use (Adams, Aitkin, Mullins, Miller, & Graham, 2013).

The University of New South Wales is developing a test procedure and performance requirements for evaluating the rollover stability and crashworthiness of ATVs (Rechnitzer, Grzebieta, McIntosh, & Simmons, 2013). This may be useful in evaluating the safety of ATVs in the United States.

In summary, the current situation is that vehicles designed exclusively for off-road use are involved in more on-road than off-road fatal crashes, despite laws in most states prohibiting many types of on-road use. At least two-thirds of the crashes take place on paved roads, which increase ATV crash risk. ATV riders comprise only 1% of all motor vehicle crash deaths on public roads, but their presence on the roads endangers them and others. There may be remedies for reducing on-road ATV crashes, primarily through appropriate legislation, but they have yet to be identified or implemented adequately.

## Acknowledgments

The authors appreciate the contributions made by David Zuby and Michele Fields of the Insurance Institute for Highway Safety. This work was supported by the Insurance Institute for Highway Safety.

## References

- Adams, L. E., Aitkin, M. E., Mullins, S. H., Miller, B. K., & Graham, J. (2013). Barriers and facilitators to all-terrain vehicle helmet use. *Journal of Trauma and Acute Care Surgery*, 75, S296–S300.
- American Academy of Pediatrics (2000). All-terrain vehicle injury prevention: Two-, three-, and four-wheeled unlicensed motor vehicles. *Pediatrics*, 105, 1352.
- Blecker, N., Rhee, P., Judkins, D. G., Wynne, J. L., Friese, R. S., Kulvatunyou, N., et al. (2012). Pediatric all-terrain vehicle trauma: the epidemic continues unabated. *Pediatric Emergency Care*, 28, 443–447.
- Bowman, S. M., & Aitken, M. E. (2010). Still unsafe, still in use: Ongoing epidemic of all-terrain vehicle injury hospitalizations among children. *Journal of Trauma Injury, Infection, and Critical Care*, 69, 1344–1349.
- Christie, R. (2001). *The effectiveness of driver training as a road safety measure: A review of the literature*. Victoria, Australia: Royal Automobile Club of Victoria Ltd.
- Consumer Product Safety Commission (2013). *Annual report of ATV-related deaths and injuries*. (Bethesda MD).
- Denning, G. M., Harland, K. K., Ellis, D. G., & Jennissen, C. A. (2013a). More fatal all-terrain vehicle crashes occur on the roadway than off: Increased risk-taking characterizes roadway fatalities. *Injury Prevention*, 19, 205–256.
- Denning, G. M., Jennissen, C. A., Harland, K. K., Ellis, D. G., & Buresh, C. T. (2013b). All-terrain vehicles (ATVs) on the road: A serious traffic safety and public health concern. *Traffic Injury Prevention*, 14, 78–85.
- Hall, A. J., Bixler, D., Helmkamp, J. C., Kraner, J. C., & Kaplan, J. A. (2009). Fatal all-terrain vehicle crashes: injury types and alcohol use. *American Journal Preventive Medicine*, 36, 311–316.
- Helmkamp, J. C. (2000). Adolescent all-terrain vehicle deaths in West Virginia, 1990–1998. *West Virginia Medical Journal*, 96, 361–363.
- Helmkamp, J. C., Ramsey, W. D., Hass, S. M., & Holmes, M. (2008). *All-terrain vehicle (ATV) deaths and injuries in West Virginia: A summary of surveillance and data sources*. Charleston WV: Criminal Justice Statistical Analysis Center, Division of Criminal Justice Services, Department of Military Affairs and Public Safety (Available: [www.wvdcs.com/statsanalysis](http://www.wvdcs.com/statsanalysis)).
- Houston, D. J., & Richardson, L. E., Jr. (2007). Motorcycle safety and the repeal of universal helmet laws. *American Journal of Public Health*, 97, 2063–2069.
- Houston, D. J., & Richardson, L. E., Jr. (2008). Motorcycle fatality rates and mandatory helmet use laws. *Accident Analysis and Prevention*, 40, 200–208.
- Insurance Institute for Highway Safety (2013a). *2011 motorcycles and ATVs fact sheet*. (Arlington, VA).
- Insurance Institute for Highway Safety (2013b). *2011 alcohol fact sheet*. (Arlington, VA).
- Kardamanidisk, K., Martiniuk, A., Ivers, R. Q., Stevenson, M. R., & Thistlethwaite, K. (2010). Motorcycle rider training for the prevention of road crashes (review). *Cochrane Database of Systematic Reviews*. Oxfordshire, England: The Cochrane Collaboration (Issue 10, Article no. CD005240).
- Killingsworth, J. B., Tilford, J. M., Parker, J. G., Graham, J. J., Dick, R. M., & Aitken, M. E. (2005). National hospitalization impact of pediatric all-terrain vehicle injuries. *Pediatrics*, 115, 316–321.
- Kyrychenko, S. Y., & McCartt, A. T. (2006). Florida's weakened motorcycle helmet law: Effects on death rates in motorcycle crashes. *Traffic Injury Prevention*, 7, 55–60.

- Longthorne, A., Subramanian, R., & Chen, C. -L. (2010). *An analysis of the significant decline in motor vehicle traffic fatalities in 2008*. Report no. DOT HS-811-346. Washington, DC: U.S. Department of Transportation.
- Lord, S., Tator, C. H., & Wells, S. (2010). Examining Ontario deaths due to all-terrain vehicles, and targets for prevention. *Canadian Journal of Neurological Sciences*, 37, 343–349.
- National Cooperative Highway Research Program (2007). Public information and education in the promotion of highway safety. *Research Results Digest*, 322, Washington DC: Transportation Research Board.
- Rechnitzer, G., Grzebieta, R. H., McIntosh, A. S., & Simmons, K. (2013). Reducing all terrain vehicle injuries (ATVs) and deaths — A way ahead. *Proceedings of 23rd International Technical Conference on the Enhanced Safety of Vehicles (CD-ROM)*, Washington, DC: National Highway Traffic Safety Administration.
- Republican American (2013). *Side-by-sides drive like a car, act like a bike*. Rep-Am.com, Jun 17. (Available: [www.rep-am.com/articles/2013/06/17/lifestyle/travel/TB117](http://www.rep-am.com/articles/2013/06/17/lifestyle/travel/TB117)).
- Rodgers, G. B. (1993). All-terrain vehicle injury risk and the effects of regulation. *Accident Analysis and Prevention*, 25, 335–346.
- Rodgers, G. B. (2008). Factors associated with the all-terrain vehicle mortality rate in the U.S.: An analysis of state-level data. *Accident Analysis and Prevention*, 40, 725–732.
- Shults, R. A., West, B. A., Rudd, R. A., & Helmkamp, J. C. (2013). All-terrain vehicle-related nonfatal injuries among young rider in the United States, 2001–2010. *Pediatrics*, 132, 282–289.
- Sivak, M. (2008). *Is the U.S. on the path to the lowest motor vehicle fatalities in decades?* Report no. UMTRI-2008-39. Ann Arbor: University of Michigan Transport Research Institute.
- Specialty Vehicle Institute of America (2013). *Position in opposition to on-road operation of ATVs*. (Arlington VA).
- Stolz, U., McKenzie, L. A., Mehan, T. J., & Smith, G. A. (2009). Assessing public opinion regarding potential ATV-related policies. *Journal of Safety Research*, 40, 149–155.
- Subramanian, R., & Utter, D. (2003). Multiple imputation of missing blood alcohol concentration (BAC) values in FARS. *Paper presented at the Federal Committee on Statistical Methodology Conference*, November 17–19. Arlington VA.
- U.S. Bureau of the Census (2010). *Urban and rural population by state, 2010*. Washington, DC. (Available: <http://www.census.gov/geo/www/ua/2010urbanruralclass.html>).
- U.S. Bureau of the Census (2012). *Statistical abstract of the United States*. (Washington, DC).
- U.S. Government Accountability Office (2010). *All-terrain vehicles: How they are used, crashes, and sales of adult-sized vehicles for children's use*. Publication no. GAO-10-418. (Washington, DC).
- U.S. Government Accounting Office (1991). *Highway safety: Motorcycle helmet laws save lives and reduce costs to society*. (Washington, DC).
- Weiss, H., Agimi, Y., & Steiner, C. (2010). Youth motorcycle related brain injury by state helmet law. *Pediatrics*, 126, 1149–1155.

## Appendix A. Summary of state ATV laws

State	When permitted on public roads	Helmet requirement	Passenger restriction
Alabama	–	–	–
Alaska	d, j, k, q	–	–
Arizona	k	Age 17 and younger	–
Arkansas	a, b, c, d, f, m, o	–	–
California	e	All riders on public lands	No passengers, unless ATV specifically designed for them
Colorado	a, d, g, h, j, k, l, m	–	–
Connecticut	d	–	–
Delaware	h, n	All riders of 3-wheel ATVs	–
Florida	k, o, w	Age 15 and younger	No passengers, unless ATV specifically designed for them
Georgia	k	–	–
Hawaii	–	–	–
Idaho	a, d, k, l	Age 17 and younger	–
Illinois	a, d, k, v	–	–
Indiana	d, h, q, r, s	–	–
Iowa	a, k, m, q, t, u	–	No passengers, unless ATV specifically designed for them
Kansas	k, m, v	–	–
Kentucky	a, d, k, m, v	Age 15 and younger	–
Louisiana	a, d, q, v	–	–
Maine	d, g, h, j, k, o, q, v	Age 17 and younger	–
Maryland	a, o	All riders on public lands	–
Massachusetts	a, d, h, j	All riders	–
Michigan	a, c, d, g, h, k, q, v	All riders	No passengers, unless ATV specifically designed for them
Minnesota	a, d, g, j, m, q, v	Age 17 and younger	Drivers 18 and older are limited to one passenger unless ATV specifically designed for passengers; drivers 17 and younger may carry only a parent or guardian
Mississippi	Not permitted	Age 15 and younger on public lands	–
Missouri	a, f, i, k, o, v	Age 17 and younger	No passengers, unless ATV specifically designed for them
Montana	k	–	–
Nebraska	a, d, h, k, m, v	–	–
Nevada	c, d, j, k, x	All riders	–
New Hampshire	c, d, j, q, x	Age 17 and younger	Age 17 and younger may not have passengers
New Jersey	d, x	All riders	–
New Mexico	d	Age 17 and younger	Age 17 and younger may not have passengers
New York	d, k, v	All riders	No passengers, unless ATV specifically designed for them
North Carolina	a, b, d, i, o	All riders	No passengers, unless ATV specifically designed for them
North Dakota	d, j	Age 17 and younger	No passengers, unless ATV specifically designed for them
Ohio	c, d, j, k, q, v, x	All riders on public lands	No passengers, unless ATV specifically designed for them
Oklahoma	d, k, v	Age 17 and younger on public lands	No passengers unless ATV specifically designed for them
Oregon	a, d, j, x	Age 17 and younger on public lands	–
Pennsylvania	d, g, j, k	All riders	–
Rhode Island	d, j, v	All riders	–
South Carolina	–	Age 14 and younger	Age 15 and younger may not have passengers
South Dakota	d, j, m, q, t, w, x	–	No passengers, unless ATV specifically designed for them
Tennessee	a, c, d, k, n, o, u	Age 17 and younger on public lands	–
Texas	a, d, m, o, v	All riders on public lands	No passengers unless ATV specifically designed for them
Utah	d, j, k, x	Age 17 and younger	–

## Appendix A. (continued)

State	When permitted on public roads	Helmet requirement	Passenger restriction
Vermont	a, d, k	–	–
Virginia	a, c, d, k, o, u, v	All riders except those engaged in farming	No passengers unless ATV specifically designed for them
Washington	k	All riders except those engaged in farming	–
West Virginia	a, c, d, h, j, k, m, t, v	17 and younger	Limit of one passenger, unless ATV specifically designed for passengers; passengers 18 and younger may only ride with intermediate license holders or licensed drivers 18 and older
Wisconsin	a, b, d, g, h, i, k, m, q, t, v	17 and younger	No passengers unless specifically designed
Wyoming	a, d, k, l	–	–
District of Columbia	not permitted	–	–

<sup>a</sup>Agricultural purposes.

<sup>b</sup>Hunting operations.

<sup>c</sup>Field to field or trail to trail travel.

<sup>d</sup>Crossing road.

<sup>e</sup>Fire trails, logging and service roads that are on public lands, regardless of their surface composition.

<sup>f</sup>Handicapped persons.

<sup>g</sup>Crossing bridge or culvert.

<sup>h</sup>Special events lawfully conducted and of specified duration.

<sup>i</sup>ATV operated by governmental entity.

<sup>j</sup>Emergency conditions.

<sup>k</sup>Local ordinance or specifically authorized by state.

<sup>l</sup>U.S. government authorization on federal lands.

<sup>m</sup>Utility and maintenance workers.

<sup>n</sup>May be pushed across or adjacent to roadway.

<sup>o</sup>Law enforcement.

<sup>p</sup>Road specially designed for ATV use.

<sup>q</sup>Road shoulder or right-of-way.

<sup>r</sup>Country roads by local ordinance.

<sup>s</sup>Permission granted by law enforcement.

<sup>t</sup>Surveying purposes.

<sup>u</sup>Emergency services.

<sup>v</sup>Approved riding is restricted to daylight hours.

<sup>w</sup>Gravel, dirt or loose surface road.

<sup>x</sup>Loading or unloading.

**Allan F. Williams** is a highway safety consultant, formerly Chief Scientist with the Insurance Institute for Highway Safety in Arlington, VA; he holds a Ph.D. in Social Psychology from Harvard University. Dr. Williams has published more than 300 scientific papers in a wide variety of research areas including alcohol, drugs, and driving; seat belt use; and preventing motor vehicle deaths and injuries among teenagers and children.

**Stephen L. Oesch** is a retired attorney, with more than 40 years of experience in highway and vehicle safety issues. He has worked with the Insurance Institute for Highway Safety, the National Highway Traffic Safety Administration, and the Center for Auto Safety. He received his B.A. from The College of Wooster and his JD from the Georgetown University Law Center.

**Anne T. McCartt** is Senior Vice President, Research, at the Insurance Institute for Highway Safety. She received her B.A. from Duke University and her Ph.D. in Public Administration and Policy from the State University of New York at Albany. She has authored more than 150 scientific papers or technical reports on such topics as teen drivers, older drivers, automated enforcement, and distracted driving.

**Eric R. Teoh** is a Senior Statistician with the Insurance Institute for Highway Safety. He has a master's degree in Mathematics as well as a background in Biostatistics. Since joining the Institute in 2006, he has conducted and continues to pursue many studies on the state of highway safety, including topics such as motorcycles, teenagers, occupant protection, alcohol, speeding, and vehicle design.

**Laurel B. Sims** is a Legislative Policy Analyst with the Insurance Institute for Highway Safety. She received her B.A. from Baylor University. Since joining the Institute in 2004, she has tracked and cataloged U.S. state laws on many topics including alcohol, automated enforcement, alternate vehicles, distraction, occupant protection, and autonomous driving.



## Ann McCord

---

**From:** peter\_nesbitt@icloud.com  
**To:** Saturday, November 7, 2020 9:37 PM  
**Cc:** Zane Znamenacek  
Governor Jared Polis; Shoshana Lew; Michael Goolsby; Sen. Kerry Donovan; Barbara McLachlan; Sidney Zink; Kathy Hall; Herman Stockinger; Jennifer Uebelher; Lenore Bates; Ann McCord; Caroline Mitchell; Capt. James Saunders; Chris Kambish  
**Subject:** Re: Law Enforcement funding to enforce the CO149 Pilot Program  
**Attachments:** 12-off-highway-vehicles.pdf

Zane,

I continue to review documents and emails relating to your role in the CO149 Pilot Program in Lake City and Hinsdale County.

Your response to me in the below email is inaccurate. Please take a look at the attached document from David Eller, Kathy Young and Andy Karsian. It bears the CDOT letterhead and is dated July 19, 2018.

This CDOT document clearly states the purpose of the "Regional Off Highway Vehicle Pilot Project" as:

"To hear about Region 3's ongoing efforts at finding a way to allow OHVs to travel on some state highways while maintain (sic) public safety. The pilot project will allow CDOT, State Patrol and local governments to promote OHV use in southwest Colorado and gather data that could impact future policy or legislative actions."

Reflecting on how all of this played-out since the 2018 implementation of the CO149 Pilot Program, it is clear that CDOT and others sought to implement a test program that put public safety at risk by allowing OHVs to operate on the only State Highway through Hinsdale County.

The attached document states data would be "gathered", yet no one can determine any scientifically collected data other than traffic citations, violations, accidents and deaths.

The Hinsdale County Sheriff's Office has been underfunded and understaffed. Any analysis of citations, violations, accidents and deaths will fail to provide data to ascertain the "success" of the Pilot Program.

The data relating to OHV accidents and deaths is already documented in numerous government reports and consumer safety studies – OHVs are not safe for use on highways or paved surfaces.

The Pilot Program was pitched as a means to "gather data that could impact future policy or legislative actions." This can only mean that you and CDOT sought to use Lake City and Hinsdale County to increase OHV access to Colorado State Highways. This OHV access to our public highways serves one special interest group, and that is the OHV community.

In previous email to me, you indicated that the CO149 Pilot Program was not being used as a test case to allow OHVs to operate on other Colorado State Highways. The attached document tells a different story:

"This information will help other regions work with local governments in developing other permits to allow OHVs to travel on other state highways using the criteria and outcomes from the pilot program."

Insight is always 20/20 and it is now so evident that our community has been used for nefarious purposes with the CO149 Pilot Program.

Peter D. Nesbitt  
P.O. Box 465  
825 Gunnison Ave.  
Lake City, CO 81235  
970-765-6390 (cell)

On Oct 19, 2020, at 1:03 PM, Znamenacek - CDOT, Zane <[zane.znamenacek@state.co.us](mailto:zane.znamenacek@state.co.us)> wrote:

Peter,

Thank you for your continued input on the pilot program.

Two points regarding enforcement, keeping in mind that CDOT is not an enforcement agency (that obviously falls to CSP and the Sheriff). First, I do know that at the state level, CSP and even CPW have helped with highway enforcement of this program beyond what they would normally do in the area. While I speak for neither of them, I suspect you would see a continued commitment to help as they can if this program were extended next year. Second, one point that originally led to this program was, in part, because the Sheriff at that time said he did not have the resources to enforce keeping OHV's off of the highway. By legitimizing OHV travel on the highway, the idea was that less resources might be needed for OHV enforcement. Additionally, with OHV's already having the ability to travel legally on all other Town and County roads, there was understandably great confusion on the side of OHV operators as to why Hwy 149 was the only facility where they were illegal. Between OHV operator confusion and a vaguely written court decision on the matter, the Sheriff also felt that he did not have a strong case to even do enforcement of OHV's on the highway. So really, part of the reason for this program was to make enforcement more clear cut and potentially less demanding. Whether or not this has occurred is something we're looking at right now.

I also want to address your statement that CDOT, and me in particular, "*continue to promote the CO149 Pilot Program*". That isn't true at all. This program was implemented at the request of the Town and County. My role has been to work with the Town and County to implement the program in as safe a manner as reasonably possible, which I believe I have done. So you could say that I do promote that allowing OHV's on short controlled sections of highway can be done safely, as is evidenced by the safety record of the Pilot Program over the past two summers. But I am completely impartial with regards to if a community should do this or not.

Zane

[REDACTED]  
[REDACTED] 3



[REDACTED] | [www.codot.gov](http://www.codot.gov) | [www.cotrip.org](http://www.cotrip.org)  
222 South 6th Street, Room 100 Grand Junction, CO 81501

On Fri, Oct 16, 2020 at 4:01 PM <[peter\\_nesbitt@icloud.com](mailto:peter_nesbitt@icloud.com)> wrote:

Michael and Zane,

There is a perception among some Hinsdale County residents, 2nd homeowners, and visitors that our Sheriff's Office is not doing enough to address increased OHV traffic resulting from the CO149 Pilot Program. This enforcement perception is focused primarily on OHVs but should apply to vehicles of all types.

Citizens are voicing concerns with the perceived lack of enforcement. Increased tourism and OHV numbers spread our Sheriff's Office thin this summer. The lack of staffing resulted in inadequate enforcement of State laws, the local OHV Ordinance, and the unique provisions of the CO149 Pilot Program.

The CO149 Pilot Program brought increased numbers of vehicles and tourists to Lake City and Hinsdale County this summer. The BLM reports that traffic on the Alpine Loop nearly doubled this summer. Numbers released last month indicate nearly 500,000 vehicles on the Alpine Loop this summer.

How many of those nearly 500,000 vehicles and passengers passed through Lake City and Hinsdale County on CO149?

These numbers equate to increased traffic of all types of vehicles and an increased number of human visitors to our community. These numbers can not be sustained with the expectation of adequate enforcement without increasing the Sheriff's budget to fund an additional full or part-time Deputy.

Where is the tax revenue to fund an additional Deputy for the Hinsdale County Sheriff's Office? Is CDOT or the State of Colorado willing to assist with funding to support hiring another Deputy to help with the increased traffic associated with the CO149 Pilot Program?

One emergency call from the south end of Hinsdale County may take a Deputy out of town for hours; a search and rescue mission may pull all Deputies into backcountry; and an arrest requiring jail transport will remove a Deputy from our Town and County for several hours.

Increasing our tourist base will exponentially bring more complex issues to our community. If you continue to promote the CO149 Pilot Program, then you should consider helping my Sheriff address the additional workload.

Thank you,

Peter D. Nesbitt  
P.O. Box 465  
825 Gunnison Ave.  
Lake City, CO 81235  
970-765-6390 (cell)



**COLORADO**  
Department of Transportation

Region 3 Director

**MEMORANDUM**

**DATE:** July 19, 2018  
**TO:** Transportation Commission  
**FROM:** David Eller, Kathy Young, Andy Karsian  
**SUBJECT:** Regional Off Highway Vehicle Pilot Project

**Purpose**

To hear about Region 3's ongoing efforts at finding a way to allow OHVs to travel on some state highways while maintain public safety. The pilot project will allow CDOT, State Patrol and local governments to promote OHV use in southwest Colorado and gather data that could impact future policy or legislative actions.

**Action**

Approve resolution outlining the parameters of the pilot project in Region 3 and possible future projects in other regions.

**Background**

There has been uncertainty about OHVs travelling on state highways for many years and multiple attempts at clarifying the policies and statutes have resulted in a variety of solutions, but none solving the underlying problem: how do OHVs get to connecting trailheads when a state highway separates the trail by miles.

Region 3 has worked with the local governments in southwest Colorado and using language included in recent legislation feel that there may be an opportunity to allow OHVs to travel on a state highway using a special permit developed through a pilot program for that specific area.

**Next Steps**

If approved, the region will work with State Patrol and the regional local governments to install specific parameters for OHVs to use while travelling on this state highway.

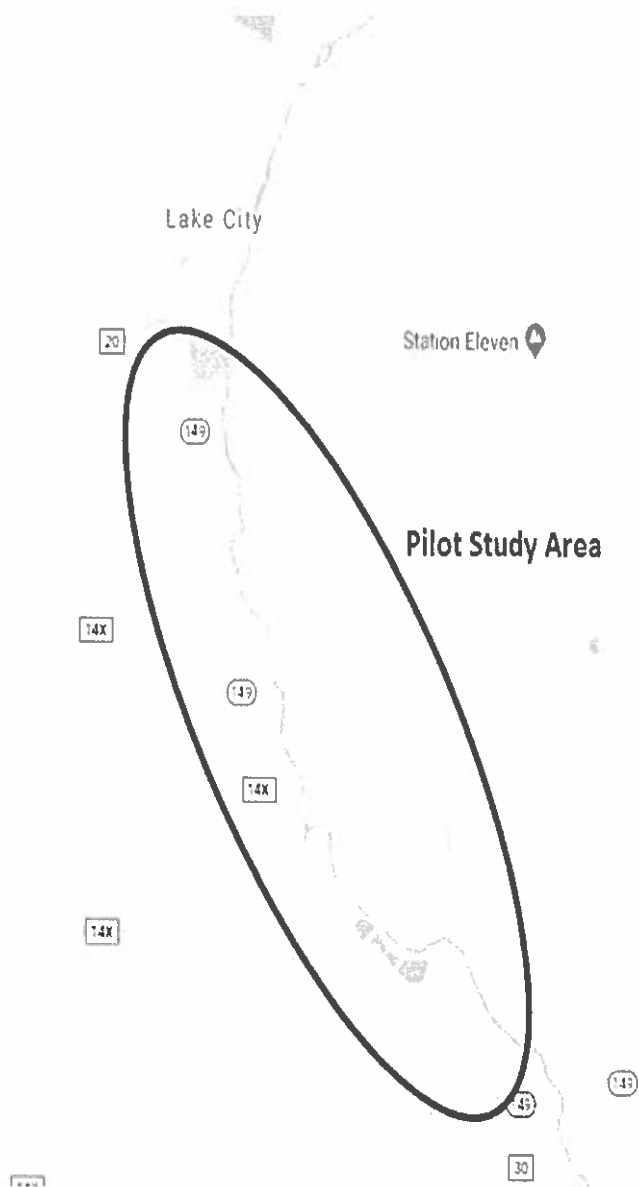
The region and the local governments will monitor the program and collect data on how the travelling public is impacted by the OHVs on the state highway and what, if any, safety factors come into play resulting from the OHVs using the road.

This information will help other regions work with local governments in developing other permits to allow OHVs to travel on other state highways using the criteria and outcomes from the pilot program.

**Attachments:**

Map of Region 3 pilot program area  
Transportation Committee Resolution







**Resolution #TC 18-07-xx**

Instructing the Colorado Department of Transportation Regions on Permitting of Off-Highway Vehicles for Travel on State Highways.

**Approved by the Transportation Commission on July 19, 2018.**

**WHEREAS**, off-highway vehicle tourism provides millions of dollars to the State of Colorado and local economies; and

**WHEREAS**, the State must balance the promotion of tourism dollars and public safety; and

**WHEREAS**, the Colorado Department of Transportation (CDOT) regions know best what safety issues and concerns confront particular regions and have a working relationship with the local governments and local law enforcement in the region; and

**WHEREAS**, the CDOT regions have struggled for years to provide adequate direction to local governments on how off-highway vehicles could travel on state highways; and

**WHEREAS**, the General Assembly passed legislation over the last two years that provides a structure for local governments to work with their CDOT regions on providing safe travel for off-highway vehicles on state highways; and

**WHEREAS**, State statute, specifically Section 33-14.5-108(a), C.R.S., stipulates that the State may designate a road or highway open to off-highway vehicles; and

**WHEREAS**, CDOT regions have worked and will continue to work with the Colorado State Patrol and local governments to develop a process for designating certain roads open to off-highway vehicles; and

**WHEREAS**, CDOT regions wish to begin a pilot program, to last for the rest of 2018 and through 2019, for off-highway vehicles to travel on some state highways; and

**NOW THEREFORE BE IT RESOLVED**, the Colorado Transportation Commission approves the regions ability to enter into agreements with the State Patrol and local governments to declare open and allow off-highway vehicles to travel on some state highways, under circumstances that could include but not be limited to:

- Outside CDOT right-of-way
- Outside of highway clear zone
- Off of the maintained highway surface
- On the highway shoulder
- On through lanes in single file rules of the road.

**NOW THEREFORE BE IT FURTHER RESOLVED**, the Commission believes that these pilot projects could offer an opportunity to gather data to direct future policy discussions,

provide additional resources for the safety of the travelling public, and make available other opportunities in other regions for state and local collaboration.

**NOW THEREFORE BE IT FURTHER RESOLVED**, the Commission instructs CDOT staff to bring this issue back to the Commission no later than September 2019 for a report on the pilot project and possible further action.

---

Herman Stockinger, Secretary  
Transportation Commission of Colorado

---

Date

**Sandy Hines**

---

**From:** Kristie Borchers  
**Sent:** Monday, October 26, 2020 9:22 AM  
**To:** Susan Thompson; Sara Gutterman; Sandy Hines  
**Subject:** Fwd: Law Enforcement funding to enforce the CO149 Pilot Program

Sent from my iPhone

Begin forwarded message:

**From:** "Bates - CDOT, Lenore" <lenore.bates@state.co.us>  
**Date:** October 26, 2020 at 9:04:23 AM MDT  
**To:** Kristie Borchers <district2@hinsdalecountycolorado.us>  
**Subject:** Fwd: Law Enforcement funding to enforce the CO149 Pilot Program

FYI.



Nesbitt

Lenore C. Bates  
Colorado Byways Program Manager



Bicycle, Pedestrian & Byways Section  
2829 W. Howard Pl. 4th Fl. | Denver CO 80204  
P [303.757.9786](tel:303.757.9786) | F [303.757.9727](tel:303.757.9727)

[www.codot.gov/travel/scenic-byways](http://www.codot.gov/travel/scenic-byways) | [www.cotrip.org](http://www.cotrip.org)

*"30+ Years of Scenic Vistas & History One Mile at a Time"*

[Colorado Byways 2021 Symposium](#)

----- Forwarded message -----

**From:** <[peter\\_nesbitt@icloud.com](mailto:peter_nesbitt@icloud.com)>  
**Date:** Sat, Oct 24, 2020 at 10:21 PM  
**Subject:** Re: Law Enforcement funding to enforce the CO149 Pilot Program

**To:** [REDACTED]  
**From:** [REDACTED]  
**Subject:** [REDACTED]

**Zane,**

**1. I realize that CDOT is not an enforcement agency, but CDOT and the Transportation Commission helped Hinsdale County and the Town of Lake City implement the CO149 Pilot Program. The Pilot Program created more problems than it solved; it further divided our community; and it facilitated damage to our backcountry wilderness areas.**

2. CPW is an acronym for Colorado Parks and *Wildlife*. I would rather see my local CPW officer (Lucas Martin) in the backcountry managing our *wildlife* resources as opposed to issuing citations to Pilot Program violators. While I appreciate his effort to assist our community and the Hinsdale County Sheriff's Office, why should a CPW officer be expected to monitor and address an OHV problem created by CDOT and my locally elected officials? Shouldn't Lucas focus on our *parks and wildlife*?

**I hope you are able to gather data on the number of days and hours CSP spent in Hinsdale County during the 2020 tourism season. Hopefully you will obtain data relating to the number of citations issued. Please do not tell me that a lack of citations equates to a lack of violations. If there are no Troopers on CO149, then there can be no citations, and that does not mean that things are going well.**

**5. You mention the Pilot Program was implemented to legitimize OHV travel on CO149. Should we legitimize racism, rape, murder, drinking and driving, child abuse or other crimes because we lack the enforcement ability to address those crimes? Allowing OHVs on CO149 via the Pilot Program is equivalent to throwing-in the towel. Our community just gave-up under the misguided direction of others in positions of power and authority.**

2

this year. According to BLM traffic counters on the Alpine Loop, the numbers are approaching 500,000 this year. The Pilot Program increased traffic on CO149 in the area known as Wades Addition, and the residents there had absolutely no say in the Lake City vote.

The Town vote and the CO149 Pilot Program has a ripple effect that impacts many people connected to our community. Visitors and 2nd homeowners have no vote and are ignored by our elected and appointed officials. We are witnessing and experiencing an incremental expansion of OHVs in our community, on CO149 and on the Alpine Loop. A local OHV organization now wants to expand the CO149 Pilot Program to the north and south on CO149. They also want to make the Pilot Program permanent and year-round.

When will it end, Zane? The CO149 Pilot Program, requested by the elected officials of Hinsdale County and Lake City, is displacing non-mechanized tourism. It adversely impacts permanent residents, 2nd homeowners, and visitors who seek solitude in the mountains. Our investments are under siege by a mechanized tourist base that does not live here.

7. There was no confusion regarding OHVs operating on Colorado State Highways. The law was quite clear: OHVs were not permitted to operate on Colorado State Highways. The only confusion was with the former Hinsdale County Sheriff who relied on an opinion by Judge Patrick for an extended period of time. No one wanted to challenge Judge Patrick or the former Hinsdale County Sheriff, not even the State of Colorado, CDOT, or the CSP. Judge Yoder settled the confusion that was intentionally created and there is no need for the Pilot Program to "make enforcement more clear cut." We are back to recognizing State law or using the Pilot Program to appease a retired Sheriff and the OHV community.

8. I hear what you are saying about my comments regarding you and CDOT promoting the CO149 Pilot Program. I respectfully disagree with you based on the amount of effort that you, CDOT, and the Transportation Commission put forth to implement the Pilot Program. While you have been open and available to these types of email exchanges, I believe that you ignored critical safety data that placed public safety at risk. I also believe that our elected officials and State employees negotiated in great secrecy due to the known opposition toward OHVs in our community.

9. With regards to public safety, no one at CDOT, the TC, Hinsdale County or Lake City have been able to refute the published OHV safety studies that I provided in 2018. OHVs are off-highway vehicles; they are not crash-test certified; their tires and rear axels increase loss-of-control events; their lights are not certified for highway use; and an accident between an OHV and another certified motor vehicle will be devastating. All of these entities put people in harm's way and we are lucky that no one has been killed.

Who in CDOT signed-off on ignoring published safety data with regards to OHVs operating on highways and paved surfaces?

10. I am disappointed that you are "completely impartial" with regards to whether a community should do this or not. I expect someone with your education and experience to address issues with scientific studies and factual information. I have yet to see any science in the implementation of the CO149 Pilot Program – only money and politics.

Once again, I appreciate the exchange, but I certainly disagree with many of your comments.

Thank you,

Peter D. Nesbitt  
P.O. Box 465



825 Gunnison Ave.  
Lake City, CO 81235  
970-765-6390 (cell)

On Oct 19, 2020, at 1:03 PM, Znamenacek - CDOT, Zane  
<[zane.znamenacek@state.co.us](mailto:zane.znamenacek@state.co.us)> wrote:

Peter,

Thank you for your continued input on the pilot program.

Two points regarding enforcement, keeping in mind that CDOT is not an enforcement agency (that obviously falls to CSP and the Sheriff). First, I do know that at the state level, CSP and even CPW have helped with highway enforcement of this program beyond what they would normally do in the area. While I speak for neither of them, I suspect you would see a continued commitment to help as they can if this program were extended next year. Second, one point that originally led to this program was, in part, because the Sheriff at that time said he did not have the resources to enforce keeping OHV's off of the highway.

By legitimizing OHV travel on the highway, the idea was that less resources might be needed for OHV enforcement. Additionally, with OHV's already having the ability to travel legally on all other Town and County roads, there was understandably great confusion on the side of OHV operators as to why Hwy 149 was the only facility where they were illegal. Between OHV operator confusion and a vaguely written court decision on the matter, the Sheriff also felt that he did not have a strong case to even do enforcement of OHV's on the highway. So really, part of the reason for this program was to make enforcement more clear cut and potentially less demanding. Whether or not this has occurred is something we're looking at right now.

I also want to address your statement that CDOT, and me in particular, "*continue to promote the CO149 Pilot Program*". That isn't true at all. This program was implemented at the request of the Town and County. My role has been to work with the Town and County to implement the program in as safe a manner as reasonably possible, which I believe I have done. So you could say that I do promote that allowing OHV's on short controlled sections of highway can be done safely, as is evidenced by the safety record of the Pilot Program over the past two summers. But I am completely impartial with regards to if a community should do this or not.

Zane

[REDACTED]  
Traffic and Safety Program, Region 3



[REDACTED] | [www.codot.gov](http://www.codot.gov) | [www.cotrip.org](http://www.cotrip.org)  
222 South 6th Street, Room 100 Grand Junction, CO 81501

On Fri, Oct 16, 2020 at 4:01 PM <[peter\\_nesbitt@icloud.com](mailto:peter_nesbitt@icloud.com)> wrote:

**Michael and Zane,**

**There is a perception among some Hinsdale County residents, 2nd homeowners, and visitors that our Sheriff's Office is not doing enough to address increased OHV traffic resulting from the CO149 Pilot Program. This enforcement perception is focused primarily on OHVs but should apply to vehicles of all types.**

**Citizens are voicing concerns with the perceived lack of enforcement. Increased tourism and OHV numbers spread our Sheriff's Office thin this summer. The lack of staffing resulted in inadequate enforcement of State laws, the local OHV Ordinance, and the unique provisions of the CO149 Pilot Program.**

**The CO149 Pilot Program brought increased numbers of vehicles and tourists to Lake City and Hinsdale County this summer. The BLM reports that traffic on the Alpine Loop nearly doubled this summer. Numbers released last month indicate nearly 500,000 vehicles on the Alpine Loop this summer.**

**How many of those nearly 500,000 vehicles and passengers passed through Lake City and Hinsdale County on CO149?**

**These numbers equate to increased traffic of all types of vehicles and an increased number of human visitors to our community. These numbers can not be sustained with the expectation of adequate enforcement without increasing the Sheriff's budget to fund an additional full or part-time Deputy.**

**Where is the tax revenue to fund an additional Deputy for the Hinsdale County Sheriff's Office? Is CDOT or the State of Colorado willing to assist with funding to support hiring another Deputy to help with the increased traffic associated with the CO149 Pilot Program?**

**One emergency call from the south end of Hinsdale County may take a Deputy out of town for hours; a search and rescue mission may pull all Deputies into backcountry; and an arrest requiring jail transport will remove a Deputy from our Town and County for several hours.**

**Increasing our tourist base will exponentially bring more complex issues to our community. If you continue to promote the CO149 Pilot Program, then you should consider helping my Sheriff address the additional workload.**

**Thank you,**

**Peter D. Nesbitt  
P.O. Box 465  
825 Gunnison Ave.  
Lake City, CO 81235  
970-765-6390 (cell)**

**Sandy Hines**

---

**From:** peter\_nesbitt@icloud.com  
**Sent:** Friday, October 30, 2020 8:38 AM  
**To:** Susan Thompson; Kristie Borchers; Sara Gutterman  
**Cc:** Sandy Hines  
**Subject:** ROHVA Position Paper in Opposition to OHV Use on Highways (Commissioners)  
**Attachments:** PastedGraphic-1.tiff; ROHVA -- Position in Opposition to On-Highway Operation of ROVs.pdf

Commissioners,

Please see the attached position paper from the Recreation Off-Highway Vehicle Association (ROHVA). This nationwide safety and advocacy group promotes safe and responsible use of OHVs. The attached position paper clearly states ROHVA opposition to OHVs operating on highways. Their opposition stems from OHV manufacturer intentions and federal safety requirements.

Please include this correspondence with your report to CDOT and the Transportation Commission regarding the dangerous situation created by the CO149 Pilot Program.

Thank you,

Peter D. Nesbitt  
P.O. Box 465  
825 Gunnison Ave.  
Lake City, CO 81235  
970-765-6390 (cell)

#### POSITION IN OPPOSITION TO ON-HIGHWAY OPERATION OF ROVs

The Recreational Off-Highway Vehicle Association (ROHVA) is a not-for-profit trade association formed to promote the safe and responsible use of recreational off-highway vehicles (ROVs) manufactured or distributed in North America. ROHVA also serves as the primary resource for information on ROVs. An ROV – sometimes referred to as a side-by-side or UTV – is a motorized off-highway vehicle designed to travel on four or more non-highway tires, with a steering wheel, non-straddle seating, seat belts, an occupant protective structure, and engine displacement up to 1,000cc. Current models are designed with seats for a driver and one or more passengers.

ROVs are designed, manufactured and sold for off-highway use only. On-highway vehicles must be manufactured and certified to comply with U.S. Department of Transportation Federal Motor Vehicle Safety Standards (FMVSS). These safety standards consist of extensive and detailed compliance requirements. Since ROVs are not intended to be used on-highway, they are not designed, equipped or tested to meet such standards. Permitting street use of ROVs, including modified vehicles, would be in conflict with manufacturers' intentions on their proper use, and would be contrary to federal safety requirements.

Operating on public streets and highways introduces the possibility of the ROV colliding with a car or truck, an obviously dangerous situation.

ROHVA emphasizes that ROVs are not designed, manufactured, or in any way intended for use on public streets or highways and urges that on-highway use of ROVs be prohibited and law enforcement efforts be strengthened to eliminate this practice.

Government Relations Office · 1235 South Clark Street, Arlington, VA 22202 · PH: (703) 416-0444 · Fax: (703) 416-2269

## Sandy Hines

---

**From:** peter\_nesbitt@icloud.com  
**Sent:** Thursday, October 29, 2020 2:28 PM  
**To:** Susan Thompson; Kristie Borchers; Sara Gutterman  
**Cc:** Sandy Hines  
**Subject:** ATV Safety Institute warnings about operating on paved surfaces (Commissioners)

Commissioners,

Please review the attached information as you consider renewing the CO149 Pilot Program. This information comes from the ATV Safety Institute, a nationwide organization that provides ATV training and resources to ATV dealers, owners and advocacy groups.

Please include the attached information as part of the public response from our community when you submit a final report to CDOT and the Transportation Commission.

You may find additional safety and training resources at the ATVSI website (<https://atvsafety.org/>) or by calling them directly at 800-887-2887.

### **Pavement is Prohibited**

ATVs are specifically designed as off-highway vehicles. Operating an ATV on pavement affects its handling and agility. Riding or driving an ATV on pavement used by autos and trucks puts an ATV rider in harm's way.

**For ATV training  
information call:**



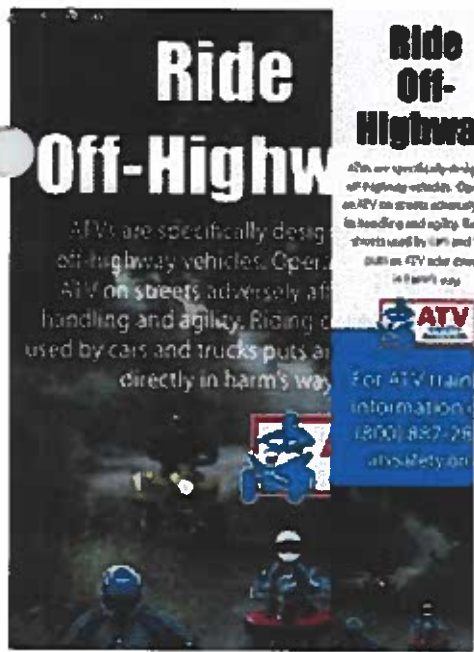
# Ride Off-Highway

ATVs are specifically designed off-highway vehicles. Operating an ATV on streets adversely affects handling and agility. Riding on streets used by cars and trucks puts riders directly in harm's way.

ATVs are specifically designed off-highway vehicles. Operating an ATV on streets adversely affects handling and agility. Riding on streets used by cars and trucks puts riders directly in harm's way.

**ATV**  
American  
Tricycle  
Vehicle

For ATV main information call (800) 887-2868 or visit [atvsafety.org](http://atvsafety.org)



# Ride Off-Highway

ATVs are specifically designed off-highway vehicles. Operating an ATV on streets adversely affects handling and agility. Riding on streets used by cars and trucks puts riders directly in harm's way.



# Ride Off-Highway

ATVs are specifically designed off-highway vehicles. Operating an ATV on streets adversely affects handling and agility. Riding on streets used by cars and trucks puts riders directly in harm's way.



Thank You,

Ter D. Nesbitt  
P.O. Box 465  
825 Gunnison Ave.

## Sandy Hines

---

**From:** peter\_nesbitt@icloud.com  
**Sent:** Sunday, November 1, 2020 9:16 PM  
**To:** Susan Thompson; Kristie Borchers; Sara Gutterman  
**Cc:** Sandy Hines  
**Subject:** Consumer Product Safety Commission (CPSC) PSA: Don't Hope For A Miracle - Keep ATVs Off Roads

Commissioners,

Attached is a YouTube for a video from the Consumer Product Safety Commission. The video is a public service announcement titled *Don't Hope for a Miracle – Keep ATVs Off Roads*. The video is only a few minutes long. I hope that you will take time to watch the video and maybe even play it at your upcoming meeting.

<https://youtu.be/Km8XdPJqUT4>

Thank you,

Peter D. Nesbitt  
P.O. Box 465  
825 Gunnison Ave.  
Durango, CO 81301  
970-765-6390 (cell)