STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

Lake City and Hinsdale County "businesses" (CO149 PILOT PROJECT)

2 messages

peter_[redacted] Thu, Feb 18, 2021 at 8:37 PM
To: Herman Stockinger <herman.stockinger@state.co.us>, Jennifer Uebelher <jennifer.uebelher@state.co.us>
[redacted]

Herman and Jennifer,

It appears that CDOT and the Transportation Commission put a lot of weight on comments made by “business owners” in Lake City and Hinsdale County. As several Commissioners mentioned, Lake City is a very unique place. As a former Lake City business owner, I am intimately familiar with what it takes to operate a business and survive. I also personally know most of the business owners; where they live; when they are open; and who lives in Lake City and Hinsdale County on a permanent basis.

Please allow me to comment on the business situation as I see it:

The Town of Lake City reported 83 business licenses in 2020

- 57 business owners were registered to vote in the 2020 election in Lake City and Hinsdale County.
- 32 of those businesses are listed as OPEN for the winter season, but some have limited hours or require the customer to call-ahead for service.
- 26 business owners were NOT registered to vote in 2020 election in Lake City or Hinsdale County.
- 23 of those businesses close after the summer tourist season.
- 21 of those business are VRBOs. Their winter status is unknown and uncertain at best because there are so few visitors.
- 17 business owners have winter mailing addresses that are NOT in Lake City or Hinsdale County.
- 14 business owners have winter AND summer mailing addresses that are NOT in Lake City or Hinsdale County.
- 4 of those businesses are permanently closed.
- 3 of those businesses are are unknown types and their winter status is unknown.

The Town of Lake City reported 25 VRBA registrations in 2020

- 21 VRBO business owners are NOT registered to vote in Lake City and Hinsdale County.
- 4 VRBO business owners are registered to vote in Lake City and Hinsdale County.

Hinsdale County does not issue licenses or permits for businesses or VRBOs that operate in the County

My observation is that you received many comments from business owners in Lake City and Hinsdale County. However, many of the business owners who think the OHV Pilot Project is critical to their survival – DO NOT LIVE IN LAKE CITY OR HINSDALE COUNTY. These business owners take the money and run to another state at the end of the summer tourist season. The Town, County and State of Colorado obtain some tax revenue from these businesses during the summer, but any profit made by the business owners is taken to other communities and other States.

CDOT and the Transportation Commission are giving businesses a stronger voice than permanent residents and second-homeowners. If you give part-time or out-of-state business owners a greater voice in this debate, where does that put other individuals who own homes in this community?

My wife and I are former business owners. We own one commercial property that is leased to a local business, but our voice is not heard because we are not “business owners”. We recently sold a rental property (not a VRBO), but our voice

is not heard because we are not current “business owners”.

I continue to hear about “stakeholders” in this debate, but we are all stakeholders because we have invested in this community in some form or another.

Thank you,

Peter [redacted]

[redacted] Thu, Feb 18, 2021 at 8:40 PM
To: Herman Stockinger <herman.stockinger@state.co.us>, Jennifer Uebelher <jennifer.uebelher@state.co.us>
[redacted]

I should have included the supporting documents for the previous email. Please take a look at the attached Excel files. These were obtained though CORA requests to the Town of Lake City and Hinsdale County.
[Quoted text hidden]

On Feb 18, 2021, at 8:37 PM, peter[redacted]

Herman and Jennifer,

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Thank you,

Peter [redacted]

2 attachments

2020 Short Term Rentals (modified).xlsx
15K

Contains personally protected information - not attached to this document

Business License Data 2020 (edited).xlsx
241K

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

Listen to Peter

1 message

John [redacted] Thu, Feb 18, 2021 at 10:39 PM
To: "To: Herman Stockinger" <herman.stockinger@state.co.us>, Jennifer Uebelher <jennifer.uebelher@state.co.us>, "Cc: [redacted]

Don't let Colorado continue to be destroyed by the OHV machinery and mentality; they are dangerous to our state.
I think Peter has dismantled the 'business interests' argument.
Vote your conscience.

John [redacted]

--
[redacted]

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

CDOT OHV Powerpoint presentation to the Transportation Commission on February 17, 2021

1 message

peter_[redacted] Thu, Feb 18, 2021 at 10:53 PM
To: Herman Stockinger <herman.stockinger@state.co.us>, Jennifer Uebelher <jennifer.uebelher@state.co.us>
[redacted]

Herman and Jennifer,

Thank you for providing me with a copy of the Powerpoint presentation delivered by Michael Goolsby and Zane Znamenacek, both strong CDOT supporters of the CO149 Pilot Project.

Please allow me to offer comment about this presentation. The **BOLD** text below is from the CDOT Powerpoint. My comments are listed directly below each section of **BOLD TEXT:**

Hinsdale County has requested OHV use on SH 149 for at least the past 6 years, and held numerous events through CSP Event Permits prior to 2019

This statement is not entirely accurate.

Former Hinsdale County Sheriff Ron Bruce and retired CSP Maj. George Dingfelder are primarily responsible for initiating the request to address the OHV issue on CO149 in Lake City and Hinsdale County.

To the best of my knowledge, the elected officials of Hinsdale County and the Town of Lake City did not initiate contact with CDOT or the State of Colorado to create a Pilot Project to allow OHVs to operate on CO149.

Following the "16 in 16" designation in 2016, a renewed effort ensued to allow OHV's on SH 149

This is true. However, please know that the Alpine Loop Scenic Byway is an off-road four-wheel drive road through the mountains of Hinsdale, Ouray and San Juan Counties. The *16 in 16* initiative by Colorado Governor Hickenlooper was primarily for *hiking trails* in the State of Colorado.

The Alpine Loop Scenic Byway was the *only* mechanized or motorized "trail" included in the Governor's plan. This was accomplished at the last minute, during the late hours of night, and outside of public view or knowledge.

Additionally, first contact from Lake City and Hinsdale County did not come from an elected official or governing body. Contact was made by Angela Hollingsworth, the Lake City and Hinsdale County Chamber of Commerce Director.

Ms. Hollingsworth initiated contact without official approval or request by the Town of Lake City Board of Trustees or the Hinsdale County Board of County Commissioners.

Legal review determined that the TC could make this declaration

Yes, this is true. However, as CDOT representatives reported at yesterday's meeting, they found an "end-around" that allowed CDOT, CSP and the Hinsdale County Sheriff to circumvent State Law that forbade OHVs from operating on Colorado State Highways.

Work began in 2016 to develop the "Pilot Program", which was implemented through TC action during the summers of 2019 and 2020

This is true. However, the development and planning of the Pilot Program was first initiated behind closed doors and without public knowledge or participation.

GOCO reported public meetings and announcements, but those meetings were held in Denver and not announced in local newspapers in time for public (local) participation.

Not a single public meeting was held in Lake City or Hinsdale County.

Goal to legitimize OHV use from a legal standpoint

State law (then and now) does not allow OHVs to operate on Colorado State Highways. Why was CDOT, CSP and the Hinsdale County Sheriff's Office intent on circumventing State law and legitimizing OHV use?

As Commissioner Beedy said yesterday, the State of Colorado had been dealing with the OHV issue for over ten years.

This gives me the impression that CDOT, CSP and a rural County Sheriff were not happy with decisions made by the Colorado Legislature. They took matters into their owns hands and found a loophole to circumvent State law.

Extensive research was performed on other states that allow OHV's on state highways

I do not believe this statement is accurate. Over the past four years, I requested information on CDOT studies and reports relating to OHV use on paved surfaces or State highways. My requests were sent to Region 3 Manager Michael Goolsby, CDOT Program Manager Zane Znamenacek and other CDOT employees associated with "safety" and "research".

To date, not one person at CDOT has been able or willing to provide me with information relating to studies or research relating to OHVs operating on paved surfaces or highways.

I (and others) provided Znamenacek and Goolsby with studies, reports and analysis relating to OHVs and ATVs operating on paved surfaces and highway environments, but neither employee was willing to offer comment, rebuttal or justification for their actions.

This gives me the impression that CDOT does not want to accept or review existing scientific studies relating to OHV and ATV safety.

It was recognized that the OHV use needed to be limited in scope as much as possible, while still meeting the goal of "connecting the loop"

If the goal was to "connect the loop", then why was the Pilot Project allowed to extend north of 2nd Street in Lake City?

Proponents of the CO149 Pilot Project are diligently working to expand the program route north and south of Lake City.

The area of SH 149 proposed for the route was studied extensively

Once again, I asked CDOT for copies of any studies to help me understand what was happening with the CO149 Pilot Project.

To date, no one from CDOT has been willing or able to provide me with any studies or reports relating to CO194 in Hinsdale County.

Local education and brochures

This was a complete failure. A Town of Lake City Trustee is on-record as accepting blame (for the Town of Lake City) for not providing enough education and brochures to address increased OHV traffic in Town and along the CO149 Pilot Project route.

I asked Town and County officials to explain to me (and the public) the types of education and brochures they plan for the 2021 tourist season.

To date, no one from the Town or County are willing to share any of this information (if it exists) with me or the public.

There are several State and National OHV/ATV organizations that specialize in education through online training courses, member resources and printed brochures.

If these large and wealthy entities are not able to address the abuses and safety issues associated with OHV/ATV use in Lake City, Hinsdale County and Colorado, then how can we expect Lake City and Hinsdale County to create anything better?

CSP and Hinsdale Co Sheriff involvement

As mentioned above, a former Hinsdale County Sheriff and CSP were working on the OHV "issue" without publicly involving Lake City or Hinsdale County elected officials. The residents and second-homeowners of Lake City and Hinsdale County were completely cut-out of any initial discussions.

Yearly debriefing meetings among agencies

Yes, these briefings occurred, but the public was not involved in the process. We were not afforded an official mechanism to voice our experiences or concerns with the CO149 Pilot Project.

Local opportunities for public comment

Any and all "opportunities" to offer comment on the CO149 Pilot Project were only obtained after voicing angry objection to what our local and State officials were trying to accomplish behind our backs and out of public view.

Lake City residents have voted multiple times to allow OHV's on Town Streets

This statement is misleading. Yes, Lake City residents voted multiple times on the *issue* of allowing OHVs to operate on Town streets and alleyways.

What is misleading in this statement, is that Town of Lake City voters *rejected* OHVs on three separate elections.

The issue of allowing OHVs to operate on Town streets and alleyways has been ongoing for ten years or more. I voted to *approve* OHVs on Town Streets and alleyways shortly after arriving in Lake City. I soon regretted that decision and have been fighting against OHVs since making my uninformed and inexperienced decision.

Public comments were solicited in Fall of 2020. 238 comments were received, 179 were in favor of the project and 59 were not. 42 business owners provided comments, 39 were in favor of the project and 3 were not

Let's be clear: The elected officials of Lake City and Hinsdale County did not willingly solicit comments on the CO149 Pilot Project. The only reason comments were solicited, is due to the pressure that opponents placed on elected and appointed officials.

When comments were solicited, the elected officials of Lake City and Hinsdale County placed restrictions on how many letters could be submitted by any individual; they manipulated numbers and topics; and they essentially tried to minimize the impact and effect of opposition letters.

Sales taxes in the Town and County increased 39% from 2018 to 2020 during the months of June to Oct

This statement is misleading. Not one person or government entity can produce any reason for this increase, but many proponents of the CO149 Pilot Project assert that this tax revenue increase is because of OHV tourism.

Several individuals in our community performed independent tax analyses after obtaining tax records from Hinsdale County. These individuals found the tax increase most likely due to reporting and collection of *online* sales tax.

Many requested the Town, County and non-profit organizations to perform an in-depth tax analysis, but no one is willing to perform this critical form of data collection. Instead, we waste money on parking studies and other DOLA projects that have never produced any benefit to the community.

One OHV Property Damage Only accident occurred during the implementation period

This is a great statistic, but why are CDOT and the Transportation Commission ignoring known and documented trends associated with OHV deaths and severe injuries in other States?

Lake City and Hinsdale County exist within a unique bubble that is separate from big-city dynamics. However, statistics by government agencies, non-profit organizations and safety institutes all show that deaths and severe injures will increase with increased OHV access to public roads and highways.

The Hinsdale County Sheriff's Office "found" an OHV in Hinson Creek several years ago. That "incident" was never officially reported and attempts to obtain information about this incident were futile. The public does not know who owns this vehicle; does not know how the accident occurred; and the entire incident has been kept under a shroud of secrecy.

Several warnings and tickets were issued, Law Enforcement believes at roughly the same proportion as other motor vehicles

"Several" is an inaccurate statement. Please review documents submitted by the Hinsdale County Sheriff's Office, CSP an dCPW. These numbers may be small if you live in a big city, but for our small community, these number are significant.

Based on documentation from the Hinsdale County Sheriff's Office and local residents, law enforcement presence was at an all-time low in 2020.

Many residents contacted Gunnison County Dispatch to report OHV violations of State law and Town and County Ordinances. Dispatch employees scoffed at these reports. The Sheriff's Office arrived hours after the event or not at all.

Additional comments by the current Hinsdale County Sheriff, residents and visitors, all indicate that there was a significant lack of enforcement in 2020.

CSP implemented an enforcement program in 2018 or 2019, but due to retirements at CSP, these programs did not materialize in Lake City or Hinsdale County during the 2020 tourist season.

CPW issued 9 citations and 8 warnings on all state, county, town and Forest Service roads

Kudos to CPW for helping with our OHV problem, but CPW officers should be working in the backcountry to protect our wilderness areas. I am thankful they helped, but this is not their responsibility. CPW officers are stepping-up to address issues and problems created by local and State officials.

CSP issued 6 citations and 22 warnings, primarily on SH 149

These numbers reflect a genuine lack of presence in Lake City and Hinsdale County during 2020. We need to see a greater CSP presence on CO149 in Lake City and Hinsdale County.

Most citations and warnings were for operating outside the approved area, minor without helmet, and no insurance

What does this mean? Does this mean that all of the signs, education and "safety stops" are not working? These tourists are supposed to know and understand the laws and ordinances before they bring OHVs to our Town, County and State of Colorado.

Commonly cited positive comments cited economic benefit, convenience, general legitimization of OHV use and a wish for expansion of the program

The economic benefit has never been proven by any State or local official, nor any non-profit organization.

Convenience is not good enough to endanger public safety, and certainly no reason to circumvent existing State law.

Legitimization of OHVs through this program is an attempt to circumvent State law regarding the use of off-highway vehicles on our State highways.

The Transportation Commissioners expressed concern with the Pilot Project expanding throughout the State of Colorado, yet CDOT clearly states their wish and desire to expand the program.

Lake City and Hinsdale County voted to ask for a 3 year extension of the program

The desire by the elected officials of Lake City and Hinsdale County to implement the CO149 Pilot Project for three years is an attempt to legitimize OHV use in our community by circumventing existing State law that prohibits OHVs from operating on State highways.

This three-year period will serve no positive purpose and will only demoralize the community with the illusion of economic benefit by OHV tourism.

Work with R3 to review sign plan and explore a temporary speed limit reduction

A temporary speed reduction will create confusion for residents and visitors as the speed limit changes throughout the year.

A steep hill at the south-end of Lake City in Hinsdale County will make it difficult for large lumber trucks and Class-A recreational vehicles to maintain 25 MPH while coming down this steep hill.

The rest of the world, people who drive vehicles certified for highway use, will be forced to reduce their speed to accommodate OHVs in the intrest of safety.

Volunteer education check-points on Alpine Loop

I communicated with the Hinsdale County Sheriff's Office today and confirmed that NO ONE is authorized to create "check-points" in Hinsdale County – ONLY the Sheriff's Office is authorized to set-up any type of check-point.

Any check-point created by a non-profit organization must be established outside of the right-of-way. There is no requirement for the operator of an OHV to stop for any reason.

Conclusion

This Powerpoint presentation was created by CDOT in an effort to support the CO149 Pilot Project in Lake City and Hinsdale County. This Powerpoint presentation does not accurately reflect the concerns of all community residents, home or property owners.

CDOT receives funding from every resident and visitor to the State of Colorado, yet CDOT only serves the elected officials of Lake City and Hinsdale County.

CDOT is NOT ensuring the public safety of CO149 with the Pilot Project.

CDOT is in jeopardy of losing Federal funding because the CO149 Pilot Project *reduces* public safety instead of *increasing* public safety.

CDOT is clearly using Lake City and Hinsdale County as a an experiment to expand OHV use and access of Colorado State Highways.

CDOT wants to *legitimize* OHV use on State highways.

If this CO149 Pilot Project is not rejected by the Transportation Commission, we will see OHV Pilot Projects implemented throughout the State of Colorado.

Sincerely,

Peter [redacted]

[redacted]

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

OHV "Working Group" in Lake City and Hinsdale County

1 message

peter_[redacted] Sat, Feb 20, 2021 at 8:10 PM
To: Herman Stockinger <herman.stockinger@state.co.us>, Jennifer Uebelher <jennifer.uebelher@state.co.us>
[redacted]

Herman and Jennifer,

At the Transportation Commission meeting last week, Michael Goolsby informed the Commissioners that an "OHV Working group" or "workgroup" would be able to address some of the safety and community issues raised during the meeting.

Please be advised that no such group exists in the Town of Lake City or Hinsdale County.

I communicated with several elected officials last week on this matter. To be clear, I spoke to one Trustee, one Commissioner and the County Sheriff. All three individuals said that no such group exists to solve or address OHV issues of concern.

So when Goolsby said that a "working group" or "workgroup" would solve or address any of the safety concerns that were raised by the Transportation Commissioners, I'm not sure who he thinks will solve these issues for our community or the Transportation Commission.

I was a member of the Joint Town/County OHV Workgroup that existed around 2018. During my tenure on that official workgroup, I communicated extensively with Zane Znamenacek on many aspect of the proposed Pilot Project. I repeatedly asked the Town and County to invite Goolsby, Zane and CSP Maj. Dingfelder to these meetings, but my requests were always denied.

In the end, the Join Town/County OHV Workgroup was dissolved and not one single recommendation from our workgroup was ever incorporated by the Town of Lake City or Hinsdale County.

Please inform the Transportation Commission that we do not have a workgroup of any sort in this community to address or solve any OHV issues of concern.

Thank you,

Peter [redacted]
[redacted]

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

Comment regarding the issue of opening CO State Highway 149

1 message

Leslie [redacted] Sun, Feb 21, 2021 at 9:59 AM
To: "herman.stockinger@state.co.us" <herman.stockinger@state.co.us>, "jennifer.uebelher@state.co.us" <jennifer.uebelher@state.co.us>

[redacted]

"Operate this vehicle off-road only." — Polaris Ranger XP 1000 EPS Owner's Manual

Dear Commissioner Stockinger and Ms. Uebelher,

I write today in reference to the recent proposal to open Colorado State Highway 149 to OHV traffic in Hinesdale County. The summary of comments to this point in the process (posted by Ms. Uebelher) nicely captured the primary concerns of many. However, one point of importance to the Commission was not noted, and I would like to address that point.

It has been shown that the allowance of these vehicles on to roads where they are not designed to drive is dangerous, costing lives both on OHVs and in other vehicles, or maiming people for life. The allowance of OHVers on CO State Highway 149 south of Lake City enables a loop of unchecked traffic on this stretch of State Highway by a swarm (literally 1000s) of off-road designed vehicles that were never meant to travel on major highways. These points have been made in previous comments. However, the sheer usage volume on this road are important to look at.

Critical Point – this is not some side-access road. State Highway 149 IS a major highway. A simple check on Google Maps, Google Earth, Rand Atlas for Travel or any other mapping software shows C0149 to be the shortest route to reach western central Colorado from southeastern Colorado, northern New Mexico and western Texas, all the host areas for many, many summer travelers. Equally, most analysis has shown that the businesses in Lake City gain little traffic from this OHV access to CO State Highway 149, as OHV traffic primarily comes from travelers occupying VRBOs or other in-city vacation lodging, or from areas west, arriving down Hinesdale County Road 30, neither of which routes require the opening of CO State Highway 149. In-city visitors can access the entire areas of National Forest and BLM lands through the City's direct link to County Road 30.

I would implore you to consider the cost vs benefit of this request, versus the rhetoric around the economics, ownership of state highways, etc. I think what the citizens of Lake City would like to do with CO Hwy 149, where it runs within the city boundaries of Lake City is entirely within their purview to discuss with the Commission, but when the citizens of Lake City, which includes all of the Hinesdale County Commissioners, ask to allow off-road High clearance Vehicles beyond city borders, on one of the most travelled State Highways in Colorado, then it becomes a Commission decision – a decision to be made for all of Colorado and in the best interests of all.

I appreciate your time and service.

Dr. Lesli [redacted]

Homeowner, Hinesdale County
Colorado Year-around Citizen

Dr. Lesli [redacted]
Weimer Distinguished Chair and Professor in Sedimentary and Petroleum Geology
Associate Head Department of Geology and Geological Engineering

[redacted]

"And those who were seen dancing were thought to be insane by those who could not hear the music." -- **Friedrich Nietzsche**

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

OHV "Working Group" in Lake City and Hinsdale County

2 messages

pete [redacted] Sun, Feb 21, 2021 at 10:35 AM
To: Michael Goolsby <michael.goolsby@state.co.us>
Cc: Zane Znamenacek <zane.znamenacek@state.co.us>, Herman Stockinger <herman.stockinger@state.co.us>, Jennifer Uebelher <jennifer.uebelher@state.co.us>, Kathleen Bracke <kbrackeTCdistrict5@gmail.com>, Shannon Gifford <Commissioner.Gifford@state.co.us>, Kathy Hall <Kathy.hall10@outlook.com>, Lisa Hickey <CommissionerLisaHickey@gmail.com>, Don Stanton <dot_transp_comm@state.co.us>, Karen Stuart <Commissioner.Stuart@state.co.us>, Bill Thiebaut <Commissioner.Thiebaut@state.co.us>, Barbara Vasquez <vasqueztcdistrict6@gmail.com>, Sidny Zink <sidnyzink@gmail.com>

Michael,

At last week's Transportation Commission meeting you mentioned that there is an "OHV Working Group" in Lake City and Hinsdale County. You informed the TC that this group will help CDOT and the Transportation Commission address some of the issues identified by the TC at the Wednesday meeting.

I am not aware of any such group in Lake City or Hinsdale County.

Since the Wednesday meeting I communicated with the Hinsdale County Sheriff, two County Commissioners and one Town Trustee. Not one person admitted to knowing anything about the existence of an OHV Working Group in our Town and County.

Can you please clarify your "working group" statement and tell me (and others) what group you referred to? What is the official name of this group? What individuals or elected officials from Lake City and Hinsdale County are serving on this Group? What opponents from my side of the argument are serving on this group?

Peter [redacted]

Michael Goolsby - CDOT <michael.goolsby@state.co.us> Sun, Feb 21, 2021 at 11:02 AM
To: pete [redacted]znamenacek@state.co.us>, Herman Stockinger - CDOT <herman.stockinger@state.co.us>, Jennifer Uebelher <jennifer.uebelher@state.co.us>, Eula Adams <dot_transp_comm@state.co.us>, Kathleen Bracke <kbracketcdistrict5@gmail.com>, Shannon Gifford <commissioner.gifford@state.co.us>, Kathy Hall <kathy.hall10@outlook.com>, Lisa Hickey <commissionerlisahickey@gmail.com>, Karen Stuart <commissioner.stuart@state.co.us>, Bill Thiebaut <commissioner.thiebaut@state.co.us>, Barbara Vasquez <vasqueztcdistrict6@gmail.com>, Sidny Zink <sidnyzink@gmail.com>

[redacted]

Thank you for the question and allowing me to clarify, when I referred to the working group I was talking about the Town, County, CDOT and CSP. There is no official name for the group so I apologize if my statement made you think any differently. As far as anyone from your side of the issue being involved officially there is not at this time. I appreciate you bringing this to my attention and providing your input.

Mike

Mike Goolsby
Colorado Department of Transportation
Region 3 Director
O 970 683 6203

[Quoted text hidden]

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

40 Quotations about OHV/ATV safety on highways and paved surfaces

7 messages

peter_[redacted] Fri, Feb 19, 2021 at 5:23 PM
To: Herman Stockinger <herman.stockinger@state.co.us>, Jennifer Uebelher <jennifer.uebelher@state.co.us>

40 quotations from OHV owner's manuals, safety groups, consumer groups, and government commissions:

"FAILURE TO FOLLOW THE WARNINGS CONTAINED IN THIS MANUAL CAN RESULT IN SERIOUS INJURY OR DEATH." — Arctic Cat Wildcat Sport XT Owner's Manual

"Allowing OHVs to use public roads suggests to the public that roadway riding is a safe and responsible use of OHVs when in fact, industry, regulators, and consumer and public health and safety advocates, all agree that OHVs are not safe on public roads." — Consumer Federation of America (CFA)

"This off-highway vehicle handles and maneuvers differently than an ordinary passenger car. Sharp, high speed turns or abrupt maneuvers can cause this vehicle to roll over or go out of control." — Kawasaki TERYX4 Owner's Manual

"Operating this vehicle on public streets, roads or highways could result in a collision with another vehicle. Never operate this vehicle on any public street, road or highway, including dirt and gravel roads (unless designated for off-highway use)." — Polaris Ace, 2019 Owner's Manual

"ATV fatalities occurring on public roads comprise a significant portion of total ATV-related fatalities, as reported by the Consumer Product Safety Commission. If ATVs could be kept off of public roads, as urged by SVIA and as contained in our Model State ATV Legislation, a large percentage of ATV-related injuries and deaths would be prevented." — Specialty Vehicle Institute of America (SVIA)

"POTENTIAL HAZARD Operating this ATV on public streets, roads, or highways. WHAT CAN HAPPEN You can collide with another vehicle. HOW TO AVOID THE HAZARD Never operate this ATV on any public street, road, or highway, even a dirt or gravel one. In many states it is illegal to operate an ATV on public streets, roads, or highways." — TEXTRON Alterra VLX 700 Owner's Manual

"Given that ATVs are not designed to be driven on roads, that industry, the CPSC and consumer and safety advocates are in agreement that ATVs should not be operated on roads, and that most ATV deaths take place on roads, states should be working to restrict ATV access to public roads." — Consumer Federation of America (CFA)

"Never operate this vehicle on a public road, even a dirt or gravel one, because you may not be able to avoid colliding with other vehicles." — Arctic Cat Wildcat Sport XT Owner's Manual

"We have identified 49 OHV-related deaths in Colorado from January 2013 to September 2018. Of these deaths, 21 (43%) occurred on-road, 24 (49%) occurred off-road, and 4 (8%) occurred in an unknown location." — Consumer Federation of America (CFA)

"Do not operate this vehicle on public roads or paved surfaces." — Kawasaki TERYX4 Owner's Manual

"ATVs are designed to be operated off-highway." — ATV Safety Institute

"Never operate the vehicle on pavement or on any public street, road or highway, including dirt and gravel roads." — Polaris Ace, 2019 Owner's Manual

"An ATV handles differently from other vehicles, including motorcycles and cars. A collision or rollover can occur quickly, even during routine maneuvers such as turning and driving on hills and over obstacles, if you fail to take proper precautions." — TEXTRON Alterra VLX 700 Owner's Manual

"This vehicle's tires are designed for off-road use only, not for use on pavement. Operating this vehicle on paved surfaces (including sidewalks, paths, parking lots and driveways) may adversely affect the handling of the vehicle and may increase the risk of loss of control and accident or rollover. Avoid operating the vehicle on pavement." — Polaris Ace, 2019 Owner's Manual

"If operating on paved surfaces is unavoidable, travel slowly (less than 10 MPH) and avoid sudden turns and stops." — Arctic Cat Wildcat Sport XT Owner's Manual

"Despite the weight of industry and consumer advocate warnings, and the sobering data that indicates most ATV deaths occur on roads, the majority of states allow ATVs to be driven recreationally on public roads under certain circumstances or with local approval." — Consumer Federation of America (CFA)

"Improper vehicle use can result in SEVERE INJURY or DEATH. NEVER allow vehicle to be operated on paved surfaces - pavement may seriously affect handling and control." — Polaris Ace, 2019 Owner's Manual

"Always avoid paved surfaces. ATVs are not designed to be used on paved surfaces and may seriously affect handling and control." — TEXTRON Alterra VLX 700 Owner's Manual

"Riding on public roads introduces the possibility of the ATV colliding with a car or truck, an obviously dangerous situation. Another CPSC study of 3,200 ATV-related deaths that occurred between 1985 and 1996 found that the most frequently reported hazard pattern (56 percent of all ATV incidents) involved collisions and 35 percent of these involved collisions with motorized vehicles." — Specialty Vehicle Institute of America (SVIA)

"Failure to follow the safety precautions could result in serious injury or death." — Polaris Ace, 2019 Owner's Manual

"This vehicle is not equipped with highway-approved lights." — Polaris Ranger XP 1000 EPS Owner's Manual

"Operate this vehicle off-road only." — Polaris Ranger XP 1000 EPS Owner's Manual

"SVIA emphasizes that ATVs are not designed, manufactured, or in any way intended for use on public streets, roads or highways and urges that on-highway use of ATVs be prohibited and that law enforcement efforts be strengthened to eliminate this dangerous practice." — Specialty Vehicle Institute of America (SVIA)

"Never operate an ATV on a public road, even a dirt or gravel one, because you may not be able to avoid colliding with other vehicles." — TEXTRON Alterra VLX 700 Owner's Manual

"Improper vehicle use can result in SEVERE INJURY or DEATH" — Polaris Ranger XP 1000 EPS Owner's Manual

"Uneven terrain, rough terrain, soft surfaces, slippery surfaces, and paved surfaces can also cause a loss of control or rollover in a turn." — Arctic Cat Wildcat Sport XT Owner's Manual

"Rollovers have caused severe injuries and death, even on flat, open areas." — Polaris Ranger XP 1000 EPS Owner's Manual

"Passengers can be thrown off. This can cause serious injury or death." — Polaris Ranger XP 1000 EPS Owner's Manual

"65 percent of ATV Deaths Occur on Roads" — Consumer Product Safety Commission (CPSC)

"74 percent of ATV Deaths on Public Roads are on Paved Roads." — Fatality Analysis Reporting System (FARS)

"On-Road Deaths Increased 284 percent while Off-Road Deaths Increased 155 percent." — Consumer Product Safety Commission (CPSC) data from 1998 - 2007

"FAILURE TO FOLLOW THE WARNINGS CONTAINED IN THIS MANUAL CAN RESULT IN SERIOUS INJURY OR DEATH." — TEXTRON Alterra VLX 700 Owner's Manual

"Never ride on paved roads." — ATV Safety Institute

"Remember that this vehicle is not for use on public streets, roads, or highways." — Kawasaki TERYX4 Owner's Manual

"ATVs are designed, manufactured and sold for off-road use only." — Specialty Vehicle Institute of America (SVIA)

"Failure to operate this vehicle properly can result in a collision, loss of control, accident or rollover, which may result in serious injury or death." — Polaris Ace, 2019 Owner's Manual

"By December 31, 2016, CPSC staff had received reports of 14,653 ATV-related deaths that occurred between 1982 and 2016." — Consumer Product Safety Commission (CPSC)

"The vehicle's tires are designed for off-road use only, not for use on pavement." — Arctic Cat Wildcat Sport XT Owner's Manual

Paved surfaces may seriously affect handling and control of the vehicle and may cause the vehicle to go out of control." — Arctic Cat Wildcat Sport XT Owner's Manual

"Use of this vehicle on public roads and paved surfaces is hazardous." — Kawasaki TERYX4 Owner's Manual

Peter [redacted]

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us> Fri, Feb 19, 2021 at 6:41 PM
To: "peter_[redacted]
Cc: Herman Stockinger <herman.stockinger@state.co.us>

Thank you for your email [redacted] I assure you the commissioners have received each of your emails and are taking your position a well as all other comments into consideration. The commission is looking at the whole picture for all residents and visitors and not siding specifically with any one group. They are aware of the literature and your stated concerns. As you know, they have sent this issue back to the local officials for further planning and review. We need to let them do their due diligence to determine if feasible plans can be made to accommodate as many people as possible. The commission will make its decision once presented with the new information.

[Quoted text hidden]

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Kind Regards,

Jennifer Uebelher
Transportation Commission Liaison
Office of Policy and Government Relations

P 303.757.9025
2829 W. Howard Place, Denver, CO 80204
Jennifer.Uebelher@state.co.us | www.codot.gov | www.cotrip.org

COLORADO
Department of Transportation
Office of Policy and Government Relations

Please consider the environment before printing this email.

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peter_[redacted] Sat, Feb 20, 2021 at 5:40 PM
To: Jennifer Uebelher <jennifer.uebelher@state.co.us>
Cc: Herman Stockinger <herman.stockinger@state.co.us>

Jennifer and Herman,

Thank you for the reply and update.

I am not trying to be a pain in the butt for Staff or the Commissioners. The problem is that the Hinsdale County Commissioners and Town of Lake City Trustees are not representing me and others who oppose continued expansion of OHVs into our community and county. There is a "mob rules" mentality that completely ignores safety and environmental studies and concerns.

Without anyone to represent my views, or those who share my views, I must continue to communicate with you, Herman and the Commissioners.

Several of the Commissioners appear to grasp the seriousness of what we are trying to convey; others are middle-ground; and several are obviously OHVs enthusiasts or have been misled by local OHV supporters.

My contact with you and the Commissioners at this point is not to share my thoughts and opinions. Instead, I am trying to provide you with documents, data, studies, reports – information to help the Commissioners look at the issue from a logical position instead of an emotion position.

Many people in my community who are against OHVs attempted to “compromise” at various points along this journey. I was on the Joint Town/County OHV Workgroup that was eventually disbanded. The workgroup was stacked with pro-OHV business owners and I had to fight to stay on the group in order to represent a different set of values and opinions. My elected officials wanted me removed from the group because I was “anti-OHV”, but it was okay to stack the group with pro-OHV business owners?

I was willing to compromise, but the other side continues to paint me as a radical who is unwilling to compromise on the OHV issue. Interestingly enough, it is the pro-OHV contingent that continues to push expansion of OHVs on the State Highway. It is the pro-OHV crowd that is unwilling to compromise. They have achieved everything up to this point, while the rest of us see our community devolving into another Moab OHV/ATV community.

We have no choice but to continue sending you and the Commissioners information to bolster our side of the argument. Based on email obtained through a recent CORA requests, it appears that several are working aggressively to wordsmith the safety issues, and I will continue this fight until the Commission makes a final decision.

What did Commissioner Hall have to say about any family connections in Lake City?

On a positive note, my wife and I are going on vacation tomorrow and I might not be able to send you as many emails as usual. :-)

Thank you,

Peter [redacted]

[Quoted text hidden]

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us> Mon, Feb 22, 2021 at 7:25 AM
To: Peter [redacted]
Cc: Herman Stockinger <herman.stockinger@state.co.us>

Good morning Mr. [redacted]-

Thank you for your explanation. I assure you, the Commissioners are taking all information into account and as you saw in the meeting they are listening to the concerns and want more detailed answers before they are willing to make a decision. They want to find a solution that will be respectful of the needs of all interested parties and that is not easy to do. Sure, there may be things that people don't like, but our goal is not to just make a WIN-LOSE solution for the majority but to create a WIN-WIN solution for as many as possible with safety and environmental preservation at the forefront.

I am curious, what does compromise look like to you? The Commission has requested that the local officials and CDOT work together to come up with a better plan so now is the time to voice what you think should be in that plan and I am interested to hear what you think would work (aside from banning all OHVs). It does appear from your emails that you seem to be against all OHV's period so if you have some suggestions for how OHVs could potentially be operated in the area I am interested in hearing your thoughts. (I recall you did send a previous email with some suggestions but I have read so many lately I want to be sure I am capturing your suggestions fully.)

Please keep in mind that CDOT does not have the authority to end use of OHVs on the Alpine Loop and our oversight really is limited to CO149, but we could help engage with other local partners to find some creative solutions to the overall OHV issue during this planning time.

I sent you another email about Commissioner Hall, perhaps you didn't receive it. She stated that she is not related to anyone in Lake City and does not have any financial ties to the town. She had a few friends there years ago but they have since passed away.

Enjoy your vacation! I hope you are going somewhere warm!!

Kind Regards,

Jennifer Uebelher
Transportation Commission Liaison
Office of Policy and Government Relations

P 303.757.9025
2829 W. Howard Place, Denver, CO 80204
Jennifer.Uebelher@state.co.us | www.codot.gov | www.cotrip.org

COLORADO
Department of Transportation
Office of Policy and Government Relations

Please consider the environment before printing this email.

[Quoted text hidden]

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peter_[redacted] Sun, Feb 28, 2021 at 8:03 PM
To: Jennifer Uebelher <jennifer.uebelher@state.co.us>
Cc: Herman Stockinger <herman.stockinger@state.co.us>

Jennifer and Herman,

My wife and I are on the road visiting family and friends this week, but I have been thinking about your email before offering a response.

It is hard for me to offer you a compromise solution at this point in time. I spent 25 years working for the Federal Aviation Administration (FAA) as an Air Traffic Controller. Each and every day of those 25 years of government service was focused on *public safety.* Each day I was responsible for the safety of hundreds of aircraft; thousands of passengers; and hundreds of tons of cargo that all moved through the National Airspace System (NAS).

Air Traffic Controllers play an essential role in supporting the economy. We help people and cargo get from one place to another, but no matter how important air travel is for each flight crew member, passenger or cargo operator – *safety always comes first.*

CDOT employees and the Transportation Commissioners serve a similar role. You must keep our transportation system safe while keeping the economy moving – and you must do so without compromising public safety.

There is not a single shred of scientific evidence that will support a decision to allow OHVs to operate on CO149 in Hinsdale County.

I appreciate your request for me to offer suggestions for a compromise solution. I also understand your desire to identify a win-win solution. However, I think CDOT and the Transportation Commission should be the adult-authorities in this situation and chose public safety over small summer profits.

Any compromise on safety at this point will only lead to expanding the Pilot Project in Hinsdale County. CDOT is on-record stating the Pilot Project will expand into other areas if it is successful in Hinsdale County. I will not support a program that leads to the segregation of safety on Colorado State highways.

Sincerely,

Peter [redacted]

[Quoted text hidden]

Stockinger - CDOT, Herman <herman.stockinger@state.co.us> Mon, Mar 1, 2021 at 11:02 AM
To: Peter [redacted]
Cc: Jennifer Uebelher <jennifer.uebelher@state.co.us>

Thanks for the thoughtful response Peter, it's appreciated. Hope your family trip is going well! Do you have any information on the crash rate for OHVs on SH 149? The piece that I am struggling with is I think that the data shows there has been one property damage only crash involving OHVs on SH 149, which would seem to provide evidence that the safety issues have been mitigated and with more signage, better enforcement, and maybe a lower speed limit those dangers could be mitigated even more.

Thoughts?

Herman

Herman Stockinger, Deputy Director and Director of Policy
P 303.757.9077 | C 720.810.6934
Herman.Stockinger@state.co.us

COLORADO
Department of Transportation
Office of the Deputy Executive Director

[Quoted text hidden]

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peter_ [redacted] Mon, Mar 1, 2021 at 11:54 AM
To: Herman Stockinger <herman.stockinger@state.co.us>
Cc: Jennifer Uebelher <jennifer.uebelher@state.co.us>

Herman,

I cannot argue that the Town and County are only reporting one incident or property damage.

Maybe you can ask the Hinsdale County Sheriff's Office about the red OHV that was pulled out of Henson Creek a few years back. This incident was never publicly disclosed by any elected or appointed official in our community. A local search and rescue volunteer showed me pictures of this accident.

While you are at it, ask around about an Egyptian student named "Sandy" who lived and worked in Lake City a few years back. She was involved in an OHV rollover accident. Neither she nor the driver were wearing seatbelts or helmets. Sandy did not seek medical care after the accident and her skin began to rot. One of my employees, Maria Jose Cevallos, forced Sandy to seek medical care at the clinic in Lake City because she could smell the flesh.

Then you could talk to Robin Gowdy, owner of High Altitude Adventures, an OHV rental business in Lake City. He told me a few years back that it was not uncommon to receive a call about an OHV or ATV that had run off the road and/or trail. Robin is an OHV business owner and Chamber of Commerce President, so I doubt that he wants to see his clients in the news.

Yes… one accident has been "reported", but CDOT and the Transportation Commission have nothing to compare that to. I asked Znamenacek and our elected officials to install electronic traffic counters four years ago before the Pilot Project started, but I was informed that traffic counters are "too expensive".

All of the local "data" is somewhat anecdotal because true scientific and/or traffic studies have never been accomplished.

I sent you and many others copies of scientific reports and studies relating to OHV and ATV accidents, deaths and injuries. These documents are should be considered if you want to be balanced and fair with data and statistics.

Yes, the last several years have been absent of any reported injuries. However, statistically speaking and according to other studies, deaths and injuries will result if the Pilot Program is implemented on a permanent basis.

Thank you for asking.

Peter [redacted]

[Quoted text hidden]

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

Children's Hospital Colorado and OHV/ATV concerns

1 message

peter_[redacted] Mon, Mar 1, 2021 at 11:57 AM
To: Herman Stockinger <herman.stockinger@state.co.us>, Jennifer Uebelher <jennifer.uebelher@state.co.us>

Herman and Jennifer,

I came across the attached document today from the Children's Hospital Colorado. The document was part of a presentation made by Zack Zaslow and Dwayne Smith to the Interim Off-Highway Vehicle Interim Committee a few years back.

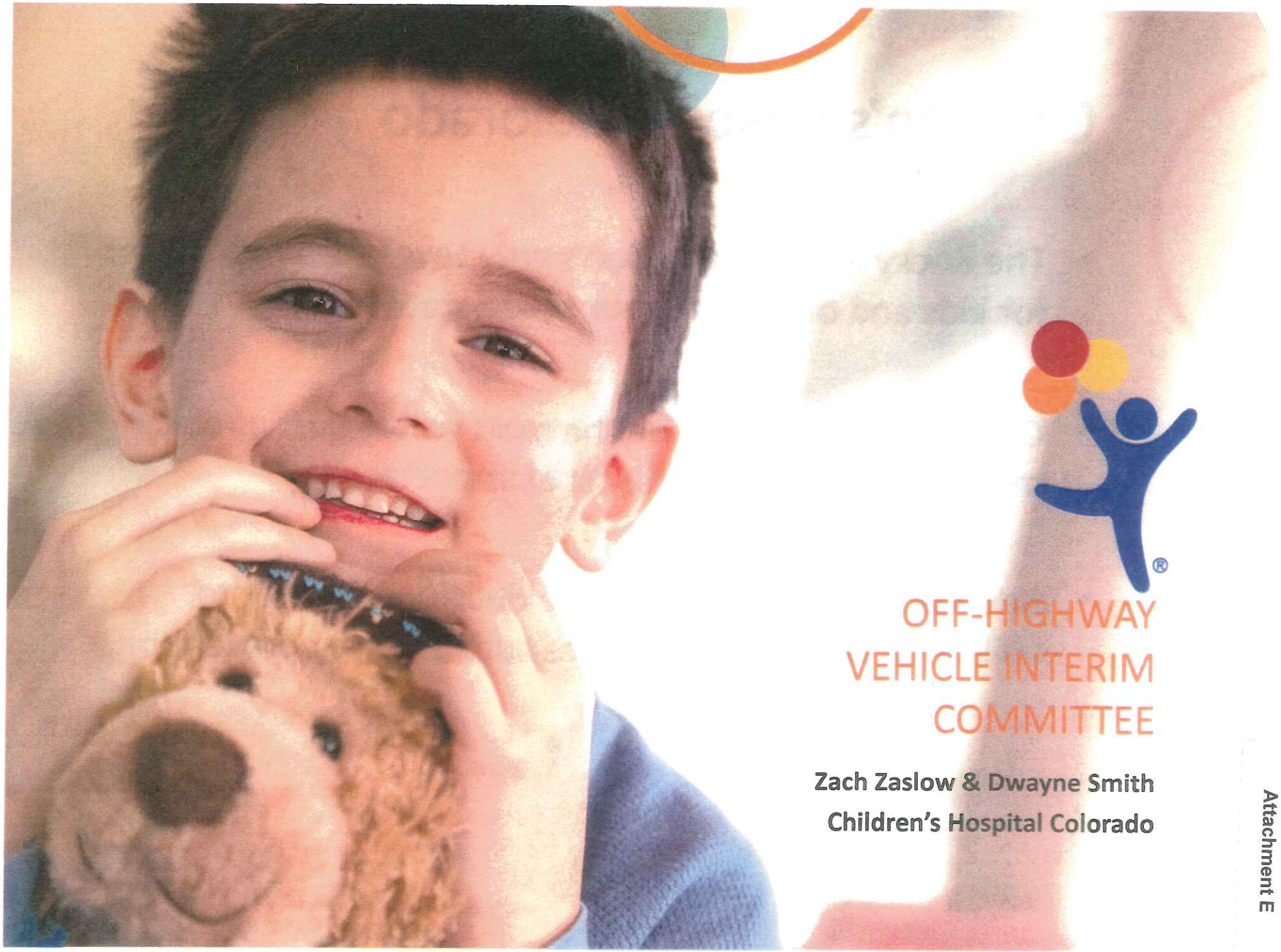
Please consider their concerns from the medical community.

Thank you,

Peter [redacted]

Colorado – CSTARS – Attachment E(1).pdf
1932K

(E)



OFF-HIGHWAY VEHICLE INTERIM COMMITTEE

Zach Zaslow & Dwayne Smith
Children's Hospital Colorado

Attachment E

Children's Hospital Colorado

- The Rocky Mountain region's only Level 1 trauma center for kids and only kids in our seven state region.
- Our clinical work may be the most visible part of our mission, but advocacy is just as important.
- Advocacy is how we influence decisions relating to children's health policy issues such as injury prevention.

Off-Highway Vehicles, Kids, and Safety

15-year-old boy killed in ATV accident in Laporte ID'd

The Associated Press

POSTED: 02/24/2015 05:32:10 PM MST

UPDATED: 02/24/2015 05:32:17 PM MST

DENVER AND THE WEST

Teenager dies in ATV crash in Grand Junction

By Anna Gauldin

The Denver Post

POSTED: 01/30/2015 03:16:17 PM MST

01/30/2015 03:16:27 PM MST

2 COMM

2 teens airlifted after ATV crash near Beaver Reservoir in Boulder County

By Mitchell Byars

Staff Writer

POSTED: 01/27/2015 08:47:14 AM MST

UPDATED: 01/27/2015 10:02:15 AM MST

9-year-old victim in fatal UTV accident born and raised in Grand Junction

Jpdated: Wed 3:34 PM, Apr 29, 2015

By: Craig Daily Press

Writers on the Range: An appeal to reduce the West's ATV carnage

Off-Highway Vehicles, Kids, and Safety

SVIA®
Specialty Vehicle Institute of America

"ATVs are designed, manufactured and sold for **off-road use only**. ...

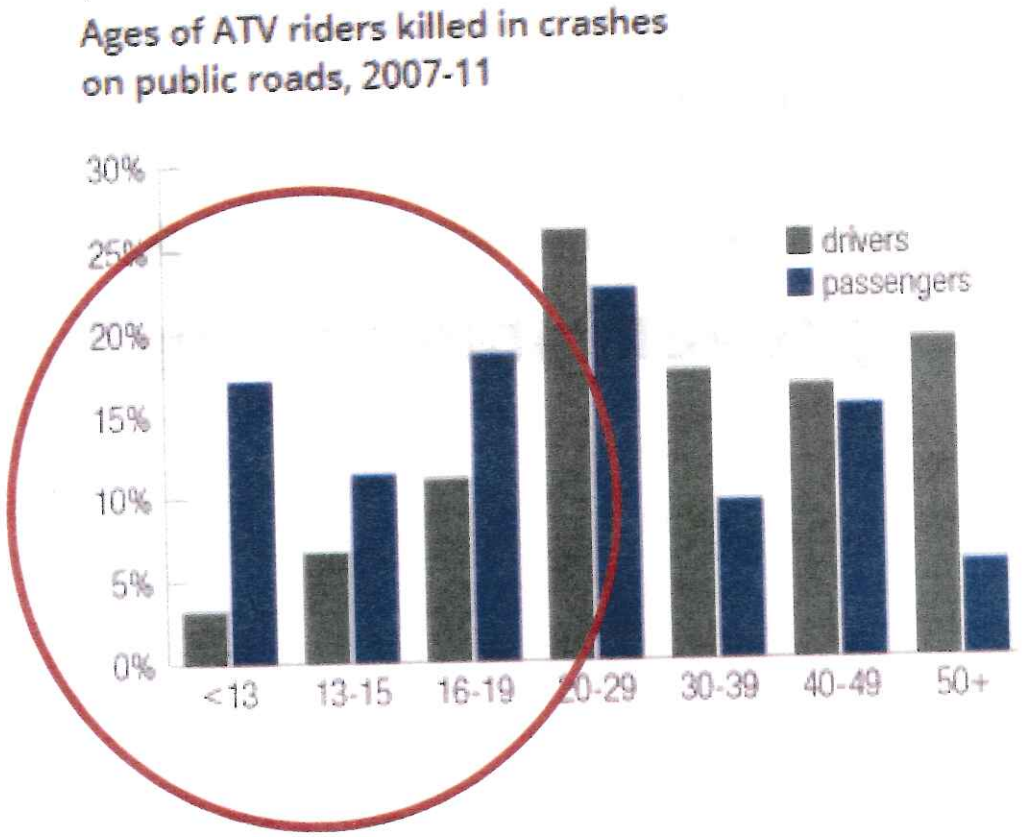
"**If ATVs could be kept off of public roads,** as urged by SVIA and as contained in our Model State SVIA Legislation, **a large percentage of ATV-related injuries and deaths would be prevented.**"

Off-Highway Vehicle Child Fatalities in Colorado

From 2009-2013, **5.9%** of children in fatal motor vehicle deaths in Colorado were riding in ATVs. This accounted for **13 preventable deaths.**

Source: Legislative Report, Colorado Department of Public Health & Environment, 2015.

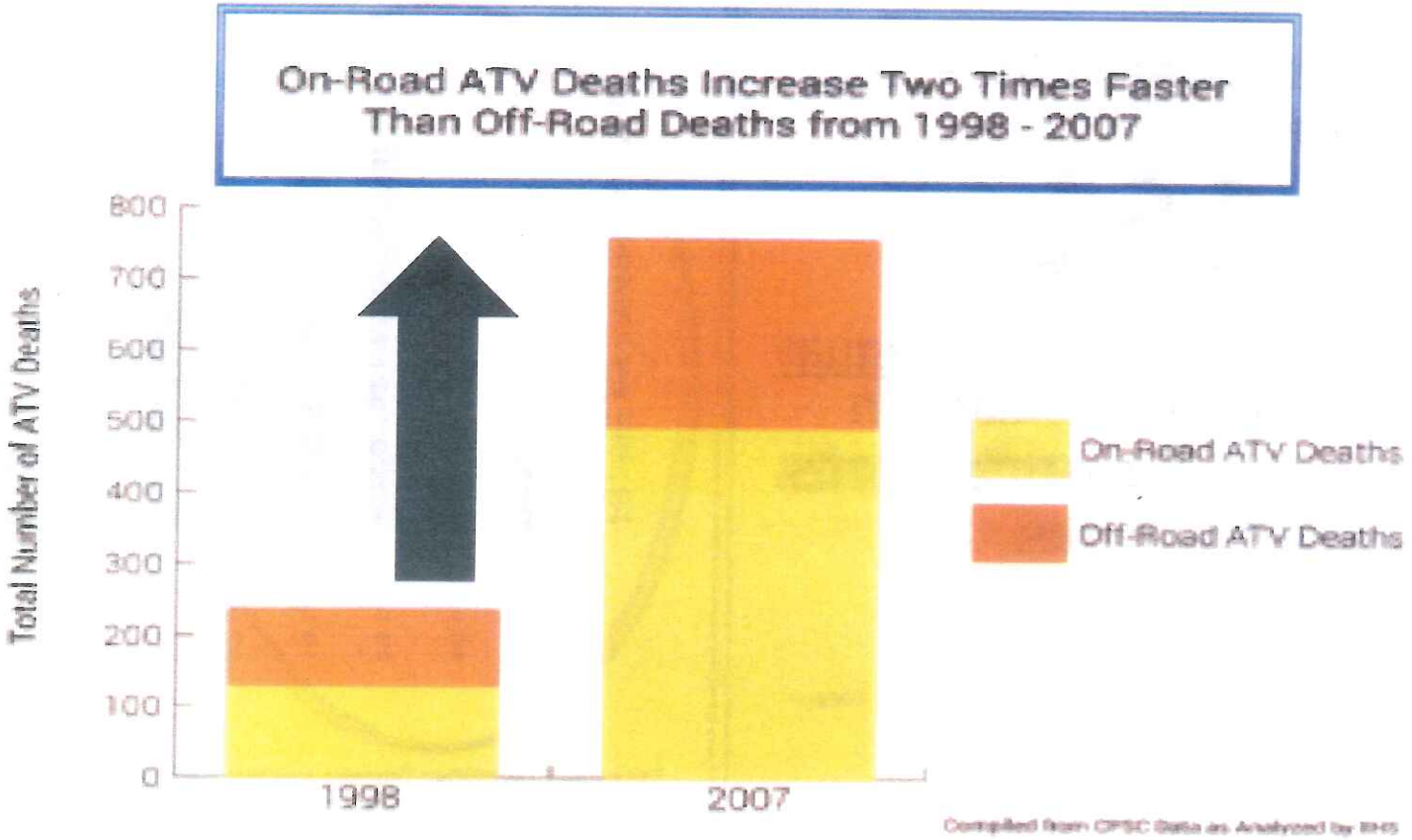
Child Fatalities on Public Roads



Nationally, **1,701 ATV riders** of all ages died on public roads from 2007-2011.

Source: Williams, A.F. et al, On-road all-terrain vehicle (ATV) fatalities in the United States. *Journal of Safety Research,* 2014.

Use of Off-Highway Vehicles on Public Roads Increase Risk of Death



Child Trauma & Injuries from Off-Highway Vehicles

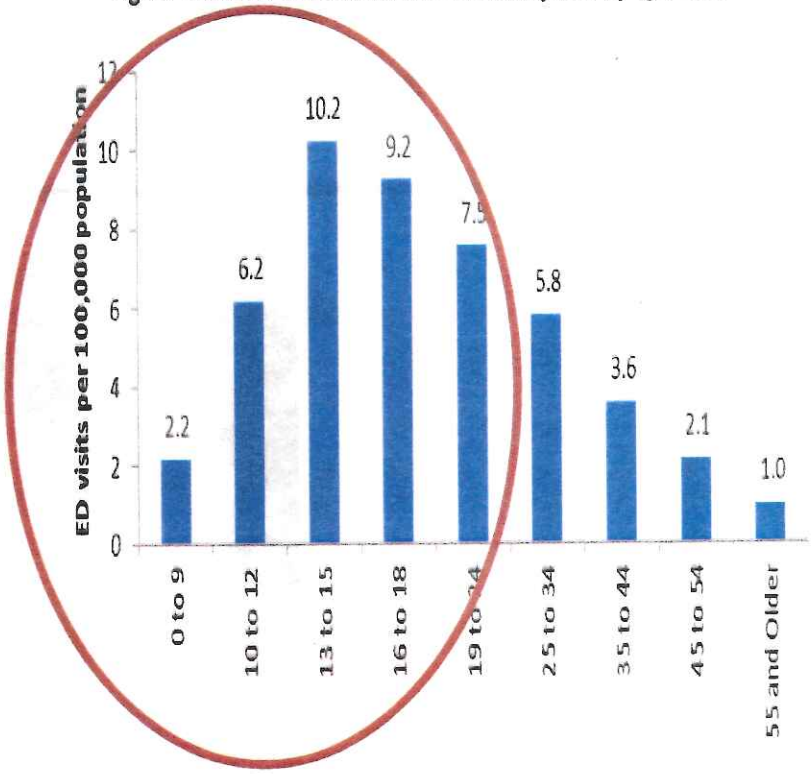
Nationally, between 2001–2010, an estimated

361,161

ATV riders ages less than or equal to 15 years old were treated in **Emergency Departments** for ATV-related injuries.

Source: Shults, R.A. et al, All-Terrain Vehicle–Related Nonfatal Injuries Among Young Riders in the United States, 2001–2010. *Pediatrics, 2013(132)2.*

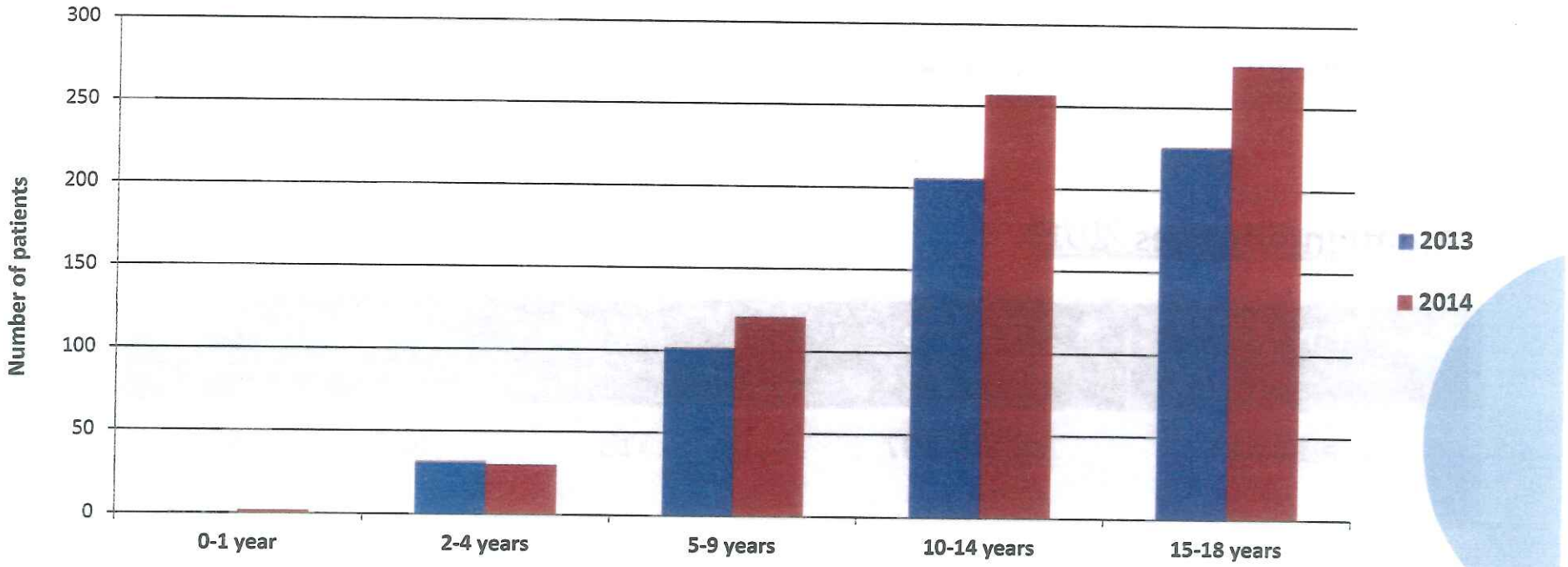
Figure 1. Rate of ED visits for ATV-related injuries by age, 2009



Source: AHRQ, Center for Delivery, Organization, and Markets, Healthcare Cost and Utilization Project, Nationwide Emergency Department Sample, 2009

Trauma & Injuries

Pediatric ATV-Related Emergency Department, Inpatient, and Outpatient CHA Hospital Utilization in Colorado By Age Group, 2013-2014



Source: Preliminary data from the Colorado Hospital Association, 2015.

Example Cost of Care for OHV Injuries

Emergency Department Charges, 2013

Payer	Charge	Age	Patient is from...
Commercial	**$45,219**	16	South Metro Area
Medicaid	**$29,414**	15	South Metro Area

Inpatient Charges, 2013

Payer	Charge	Age	Patient is from...
Medicaid	**$238,597**	13	Northern Colorado

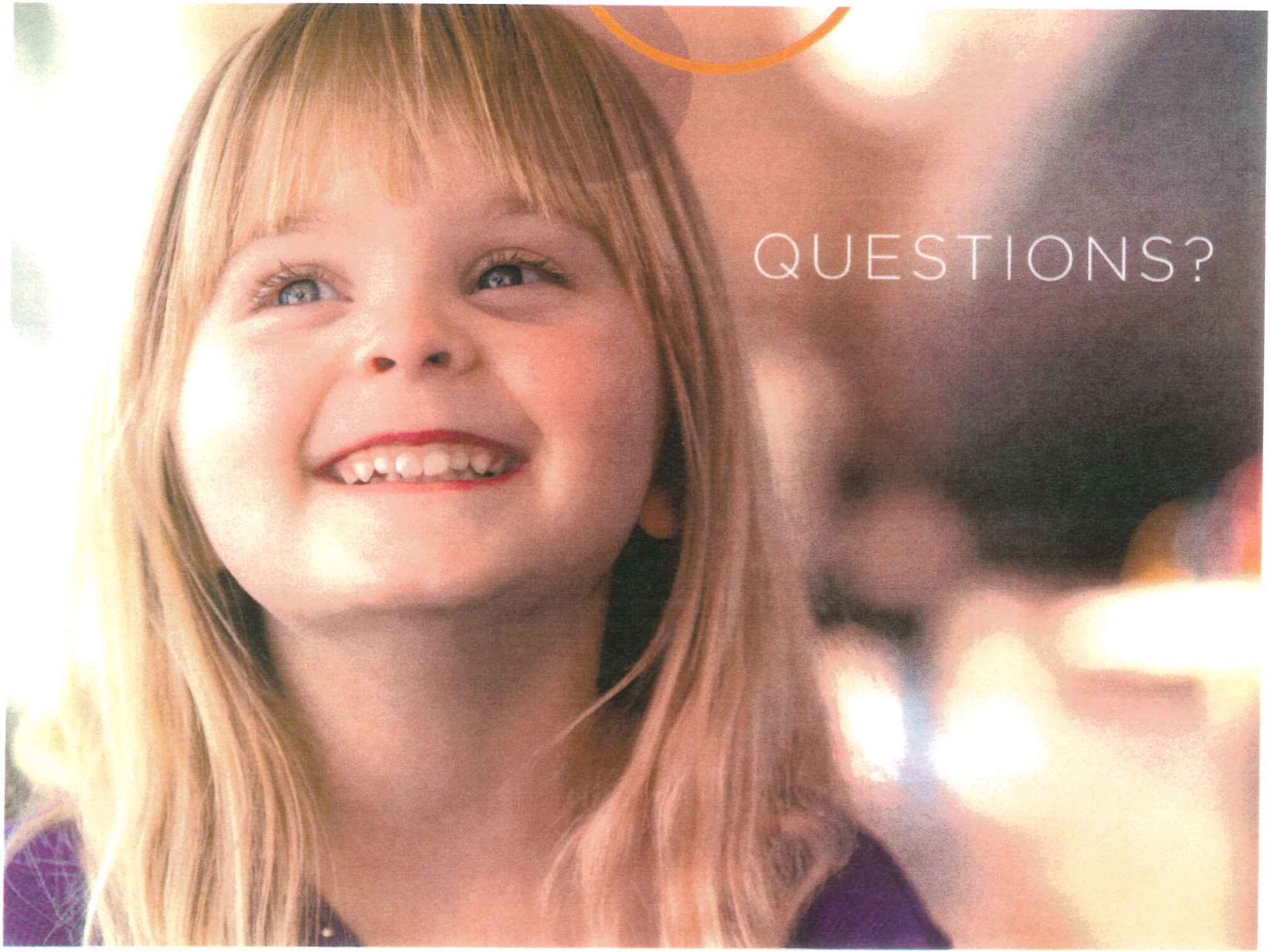
Source: Colorado Hospital Association Data, 2013.

Patient Stories from Our Hospital...

Recommendations

- Don't move forward with any legislative effort that would make it **more likely** that very young children and youth will be **injured or killed** using Off-Highway Vehicles on public roads.

- Apply any results from this Committee's work to public policies for **adults only.**


QUESTIONS?

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

Think. Ride. Live (Childress Institute for Pediatric Trauma) - THE CO149 PILOT PROJECT PAPER TRAIL

1 message

peter_[redacted] Mon, Mar 1, 2021 at 6:47 PM
To: Herman Stockinger <herman.stockinger@state.co.us>, Jennifer Uebelher <jennifer.uebelher@state.co.us>

Herman and Jennifer,

Attached is a link to a YouTube video on my website. The video addresses OHV and ATV safety, and specifically mentions the dangers associated with driving an OHV or ATV on paved surfaces. I have yet to find a report, study or document that cuts corners on this issue.

https://www.ohvpilotprogram.com/blog/think-ride-live-childress-institute-for-pediatric-trauma

Your mileage may vary,

Peter [redacted]

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

ATVs are dangerous and deadly on public roads (News Video)

1 message

peter_[redacted] Mon, Mar 1, 2021 at 7:03 PM
To: Herman Stockinger <herman.stockinger@state.co.us>, Jennifer Uebelher <jennifer.uebelher@state.co.us>

Here's another one:

https://www.ohvpilotprogram.com/blog/atvs-are-dangerous-and-deadly-on-public-roads

I have more posted in the Video and YouTube sections.

Peter [redacted]

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

ATV Safety Summit (Consumer Product Safety Commission)

1 message

peter_[redacted] Wed, Mar 3, 2021 at 10:10 PM
To: Jennifer Uebelher <jennifer.uebelher@state.co.us>, Herman Stockinger <herman.stockinger@state.co.us>

Jennifer and Herman,

Please share the attached document with the Commissioners. This document contains valuable safety information relating to ATV performance, stability and handling characteristics.

Thank you,

Peter [redacted]

CPSC – ATV Safety Summit (2013).pdf
637K

U.S. Consumer Product Safety Commission

ATV Safety Summit

Keeping Families Safe on ATVs

Staff Report
September 2013

Hope E.J. Nesteruk

ATV Project Manager

Division of Human Factors

Directorate for Engineering Sciences

U.S. Consumer Product Safety Commission

5 Research Place

Rockville, MD 20850

Executive Summary

The ATV (all-terrain vehicle) Safety Summit, held in October 2012, provided the nearly 90 external stakeholders and more than 30 CPSC staff members with a wealth of information on both the U. S. Consumer Product Safety Commission's (CPSC) open rulemaking proceeding and potential ways to increase ATV safety. More than 40 presenters addressed the gathering. CPSC received more than 40 written comments, many extensive, in response to the August 27, 2012, *Federal Register* notice. CPSC staff involved with ATVs greatly appreciates the time and effort of the stakeholders who participated in the Summit and sincerely hopes that the stakeholders found the Summit to be valuable for the new information provided and the opportunity to share ideas.

This report discusses the information received during the Summit and the public comment period. CPSC staff has categorized the comments received, based on whether the comments were related or unrelated to the open rulemaking proceeding as proposed in 2006. Comments that asked for specific, immediate regulatory action, or that were a direct response to items in the 2006 notice of proposed rulemaking (NPR), will be considered as staff prepares a briefing package related to the 2006 NPR in 2014. Other comments were more general, provided information but no specific recommendation, or required significant research to pursue. Staff will discuss the comments as part of a forthcoming briefing package for Commission consideration.

Table of Contents

Background

In October 2005, the U.S. Consumer Product Safety Commission (CPSC or Commission) published an advance notice of proposed rulemaking (ANPR) in the *Federal Register* to initiate a rulemaking proceeding for all-terrain vehicles (ATVs) under the Consumer Product Safety Act (CPSA) and the Federal Hazardous Substances Act (FHSA). In August 2006, the Commission published a notice of proposed rulemaking (NPR), which proposed to ban three-wheel ATVs and establish requirements for adult and youth four-wheel ATVs. The NPR also included direction from the Commission to staff, to address eight questions concerning youth ATVs, and four questions concerning all ATVs in general.

The years since 2006 have been marked by ATV-related activity by the U.S. Congress, the Commission, and CPSC staff, as well as the Specialty Vehicle Institute of America (SVIA). SVIA has revised the ATV voluntary standard twice. In 2008, Congress passed the CPSIA, which included the following provisions related to ATVs: banning three-wheel ATVs, requiring CPSC to mandate the voluntary standard, requiring manufacturers and distributors to have and comply with Action Plans, and directing CPSC to complete the ATV rulemaking begun in 2005. In August 2011, Public Law 112-28 was enacted, which directed the Commission to issue a final rule in the 2005 rulemaking within one year from the date of enactment, *i.e.*, by August 12, 2012. During this time period, staff conducted research to respond to the Commission's questions in the NPR and implemented many of the ATV-related activities of the CPSIA.

As the 2012 statutory deadline to issue the final rule approached, a number of ATV issues remained that differed from the requirements of 16 C.F.R. part 1420 and the Action Plans. Staff felt that because six years had passed since the 2006 NPR, there may have been other developments that could affect the rulemaking proceedings. In addition, because the Commission has limited authority to affect the behavior of ATV operators, use restrictions such as helmet use, riding on pavement, licensing of drivers, and age restrictions, the staff wished to provide stakeholders a forum to discuss these issues.

CPSC staff envisioned the ATV Safety Summit (Summit) as the start of a two-pronged approach to improving ATV safety: stakeholder engagement and regulation. The Summit provided an open invitation to stakeholders to share new information, as well as collaborate as a team and seek solutions to common problems. The primary goal of the Summit was to bring together the stakeholders, including manufacturers, consumer advocates, academic researchers, and others with an interest in ATV safety, in an environment that fostered mutual respect and that encouraged the sharing of information. The staff hoped that by sharing lessons learned regarding public awareness, information/education, training, and technology, the groups would take away information that would help everyone promote ATV safety. In addition, for issues that were not related to the current rulemaking effort, staff wanted to encourage stakeholders to work together to develop solutions to ATV issues, apart from any effort or assistance by the CPSC.

Summit Details

The Summit took place on October 11 and 12, 2012. Almost 90 external stakeholders attended the two-day event, which featured more than 40 speakers who spoke on a variety of topics. Each day featured several different panel sessions, with each panelist speaking for about 10 minutes

on their topic, followed by an approximately hour-long open forum with questions from and discussions with the audience.

In the *Federal Register* (FR) notice announcing the Summit, staff identified the following topic areas:

Rulemaking Topic Areas:

1. Vehicle Characteristics
    - Suggested topics: Vehicle lighting (brake lights and head lights); Age categories; Speeds and transmission for youth ATVs—user acceptance and user abilities; Physical sizing of ATVs
2. Consumer Awareness
    - Suggested topics: Point-of-purchase information; on-product warning labels and hang tags

ATV Innovations Topic Areas

1. State Legislation: Effecting Change
    - Suggested topics: How to effect change; What works, what doesn't? Successes and failures with other outdoor products
2. ATV Training: Reaching the Next Generation
    - Suggested topics: Increasing availability; Using new technology; What works, what doesn't?
3. Public Awareness, Information, and Education: Speaking with One Voice
    - Suggested topics: What works, what doesn't? Cultural and social media challenges to promoting safe riding
4. Vehicle Technology Innovations
    - Any new innovation—from the proof-of-concept stage or current in-use on ATVs—to advances in the area of lateral stability and rollover protection.

Each stakeholder who wished to present at the Summit was asked to select a general topic area and submit an abstract of their planned presentation. CPSC staff members of the ATV Project Team reviewed the abstracts to select and group the speakers. The FR notice allowed panel sessions to be combined, expanded, or eliminated, depending on the level of interest. However, the team felt that all of the abstracts had merit and that the two-day, two-room plan allowed room for all panelists. Therefore, the following panelists were grouped into panels on the following nine panel sessions:

- Vehicle Characteristics and Other Rulemaking Topics
- Vehicle Technology: New Innovations
- Vehicle Technology: Roll-Over Protection

- Consumer Awareness: ATV Dealers and Teens
- Consumer Awareness: Getting the Message Out
- Training: Reaching the Next Generation
- Training: New Innovations in Training
- State Legislation: Enforcement's Role in Regulation
- State Legislation: Effecting Change

Panelists' names, affiliations, and submitted abstracts can be found in Appendix A: Summit Abstracts.

Summit Discussions

The discussion portion of each session provided a wealth of information and opinions regarding ATV safety. This Summit was, to staff's knowledge, the first time many of these stakeholders met to discuss these topics. The discussions were quite fruitful, and staff believes that all participants were able to have their voice heard. Staff contracted for written summaries of these discussions, and the full report from the contractor can be found in Appendix B: Discussion Summaries. In addition, Commissioner Nord asked for comments from the audience during her plenary session, and the summary of the topics discussed in this session is also in Appendix B: Discussion Summaries.

Public Comments to the Federal Register Notice

With the publication of the FR notice for the Summit, a docket (CPSC-2012-0048) was opened to allow for written public comments. Although interested parties could submit a comment on any ATV-related issue, the FR notice requested that "comments focus on new information that was not submitted previously related to the topic areas listed" for the Summit. Forty-two public comments were received on the Summit, but several of these were similar, if not identical, to comments submitted for the 2005 ANPR or the 2006 NPR or both. Comments that were clearly identified as resubmittals of previous comments were not reviewed in detail.

The majority of the comments submitted to the docket were not directly related to the open rulemaking (*i.e.*, the 2006 NPR). Topics varied from descriptions of incidents and the aftermath for the family, to specific suggestions for vehicle changes; however, because the specific suggestions often were not topics considered in the 2006 NPR (*e.g.*, roll-over protection systems), staff considered those topics "non-rulemaking-related" to indicate they were not within the scope of the 2006 NPR. Because the Summit and the corresponding FR notice were designed to cover both rulemaking and non-rulemaking topics, staff expected and welcomed comments on topics outside the scope of the 2006 NPR.

Thirty-three of the public comments submitted were relatively brief (*i.e.*, about two pages or less), while the remaining nine comments were more lengthy, detailed, and technical in nature. Staff categorized the content of the shorter comments into the following topic areas: children and teens; incident stories; data; parental responsibility and supervision; policy; public awareness, information, and education; state legislation; training; vehicle characteristics; and other. Because of their length, nine of the comments were summarized into the same 10 topic areas rather than directly quoting the content of comment. The full report of the comments organized by topic

area can be found in Appendix C: Public Comments by Topic Area. Highlights of the comments are described below.

Children and teens

Eighteen comments referred to ATV issues specifically related to children and teens. Many commenters discussed the age cut-off of 16 years of age for adult ATV riding. Several commenters suggested linking ATV riding to (motor vehicle) driver's licenses. Other commenters focused on the size of the ATV in relation to the size of children. Commenters often used engine size as the marker of appropriateness for children. One commenter suggested preventing children from starting ATVs, while another suggested both specific and non-specific design changes to preclude children from operating an ATV.

Incident stories

Twelve commenters included personal accounts of incidents involving the deaths of children under age 16 in ATV-related incidents.

Data

Eight commenters related incident data statistics, as opposed to specific incidents. One commenter asked for updated exposure data that could be used to calculate risk. Several mentioned death and/or injury rates in their states and how those rates have changed in recent years. Two commenters provided information on incident analyses in other countries. One commenter asked the CPSC to require that manufacturers publically provide sales data.

Parental responsibility and supervision

Six commenters (seven comments) mentioned issues related to parental supervision. Three commenters stressed the importance of parental supervision, two suggested laws regarding supervision, one suggested that lack of supervision resulted in a specific fatality, and one made a general statement about parents of children injured by ATVs.

Policy

Six commenters made statements on general policy-related issues or suggested specific actions CPSC should undertake with respect to ATVs. These comments, as they were not specific to the open rulemaking, were grouped into the policy category. The comments varied, from general statements about what CPSC should consider (*e.g.*, "common sense rules and regulations," "not sanction the manufacture or sale [of youth ATVs]," and "take a strong stance"), to supportive actions CPSC should undertake (*e.g.*, "facilitate targeted nation-wide educational efforts" and

collaborate with external injury preventions experts for "comprehensive crash and injury analysis . . . similar to the NIOSH program called FACE[1]").

Public awareness, information, and education

Public awareness, information, and education were common themes in the shorter, less-technical comments. Several commenters stated that parents were not well informed about the risks ATVs posed to children and that the public should be more educated. There were also comments from ATV educators who wanted to share information about the success of their programs.

State legislation

Ten comments included statements regarding state legislation. These comments ranged from requiring ATV riders to have a state-issued driver's license, to comments about state legislation in specific states that appeared to be having an effect on ATV safety. One comment stated that laws should be up to the state to develop, not the federal government, while another comment suggested that the CPSC should evaluate and encourage enforcement of state laws.

Training

Nine comments mentioned training. One comment suggested that training should include messages that address risk. Five comments supported training, with several specifically mentioning hands-on training, youth training, or both. One comment stated that training materials had an "inappropriately high reading level" and another stated that training materials, specifically manuals and warnings, have "little impact on the operation of machinery."

Vehicle characteristics

Vehicle characteristics received a number of lengthy comments. Roll-over protective structures (ROPS), in particular, received a number of lengthy comments providing a large volume of information. Several commenters submitted reports that provided detailed analyses and expert opinions of these systems. Three comments also mentioned seat length optimization as an area for future study.

Other

There were 22 comments that did not clearly fall into one of the above nine categories. These comments varied greatly and included praise of the CPSC, statements about the ATV industry, publications from other government agencies, support of public riding areas, support of ATV

[1] http://www.cdc.gov/niosh/face/

clubs, statements about ATVs as a family activity and learning experience, and discussions of human factors issues, such as signal detection and attention. The "Other" category also included topics, such as passengers (one comment not related to other passenger comments regarding seat length or regulation), helmet use (one comment), and computer simulation (one comment).

Staff Response to Public Comments

The FR notice announcing the Summit was broad in nature, and the comments received covered a variety of topics, as summarized above. Staff noted that a number of comments contained specific suggestions that could be considered for either immediate regulatory action or further research. Comments that requested specific, immediate regulatory action, or were a direct response to items in the 2006 NPR, will be considered as staff prepares to bring the open rulemaking to conclusion. The comments that staff views as topics requiring significant research will be considered and addressed as staff develops a recommended post-rulemaking path forward.

Open Rulemaking Comments.

One comment, a joint comment from seven major manufacturers of ATVs, addressed many aspects of the 2006 NPR, and in general, did not support additional regulation, stating that the CPSC cannot show that ATVs that meet the current mandatory requirements (*e.g.* 16 CFR 1420 and mandatory Action Plans) present an unreasonable risk of injury. Another comment, which provided support for the joint comments of the industry, resubmitted comments made in response to the 2005 ANPR and 2006 NPR and a presentation made to CPSC staff in 2007.

The remaining comments that staff categorized as related to the 2006 NPR, and which will be considered and responded to when staff prepares a rulemaking package for the Commission, suggest:

- Ban selling "inappropriately sized ATVs"
- Ban aftermarket devices that carry passengers
- Install alcohol ignition interlocks
- Ban the manufacture or sale of ATVs designed for children or teenagers under the age of 16.
- Ban the sale of vehicles capable of unsafe speeds for which there is no use-based need
- Require daytime running lights (*i.e.*, always-on conspicuity lights)
- Set safe speed limits for adult and youth ATVs based on a "demonstration that the target population can operate the vehicle safely at that speed under real-life conditions."
- Specific modifications to warning labels/age acknowledgement forms

Non-Rulemaking Comments.

Staff determined that the majority of the comments received were not directly related to the scope of the open rulemaking as proposed in 2006. Commenters provided a great deal of information on occupant protection systems and other vehicle dynamics and attributes. This

information was extremely valuable, and staff appreciates the time and effort commenters took to compile the information; however, these comments raised issues beyond the scope of the 2005 rulemaking proceedings and the specific items proposed in the 2006 NPR. For purposes of organizing comments, staff categorized comments that discuss topics that were not considered in the 2005 rulemaking as "non-rulemaking comments," while recognizing that some information could be valuable should the Commission wish to pursue a new rulemaking proposal.

Conclusion

The ATV Safety Summit provided a wealth of information on both the open rulemaking action and potential improvements in ATV safety. CPSC staff involved with ATVs greatly appreciates the time and effort of the stakeholders who participated in the Summit. We hope that the stakeholders, too, found the Summit valuable in learning new information and sharing ideas.

Appendix A: Summit Abstracts

Note: abstracts are presented as submitted by panelist, without editing by CPSC staff

Vehicle Characteristics and Other Rulemaking Topics

Rachel Weintraub, Director of Product Safety and Senior Counsel

Consumer Federation of America

I would like to discuss the issue of ATV safety from the consumer perspective. CFA has been involved in this issue for decades and I have been working on it for almost 10 years. My focus would be age categories but would also touch upon consumer awareness of vehicle characteristics and the impact of these characteristics upon use and safety. The issue of ATV safety as it impacts children in the United States is an important one that is in need of more focus and discussion.

Mike Klumpp, Associate Professor Emeritus

Multi-State 4-H ATV Safety Coordinator, Oklahoma 4-H ATV Safety Coordinator, Oklahoma State University - University of Arkansas

My name is Mike Klumpp and I'm an Associate Professor Emeritus with the University of Arkansas. I have over 34 years experience in ATV safety education and youth development and currently serve as the Multi-State and Oklahoma 4-H ATV Safety Coordinator with Oklahoma State University CES. 4-H and the ATV Safety Institute recommend that parents first determine their child's readiness to operate an ATV safely before allowing them to ride. Considerations include physical size, strength, coordination, visual perception, emotional maturity, reasoning and decision-making. Once the decision is made for a young person to operate/ride an ATV, choosing the right ATV is important. We follow the manufacturer's minimum age recommendation warning label on the ATV. Since 2008, 4-H educators have trained over 4,000 youth and adults in the ASI RiderCourse. In our programming placing a large-framed 10/11 year old on an under 70cc unit or a large-framed 14/15 year old on a 90cc unit has been difficult. We have found that the Y10 and Transition models specified by the current ANSI/SVIA standard are ideal/safer for large-framed youth in those specific age ranges. We encourage CPSC to support the use and availability of these models.

James Jongkind, Manager

American Honda Motor Co., Inc.

Chair, Specialty Vehicle Institute of America Technical Advisory Panel.

Whether children are ready to learn how to ride an ATV depends on a number of factors their parents must consider, including their age, physical size, strength, coordination, visual perception, and emotional maturity, as well as their ability to reason and make good decisions. Of these, the child's age and size may be the most basic considerations, yet ones that too often are overlooked or ignored, particularly when selecting the appropriate ATV to ride, in disregard of the most predominant safety warnings present on ATVs. For many years parents and manufacturers alike were limited as to the youth ATV size options available to them. In 2007, the Specialty Vehicle Institute of America (SVIA) created new age categories (i.e. Y-10, T-14) intended to help address this concern. In this presentation, the Chair of the SVIA Technical Advisory Panel will review the new categories, the regulatory and economic challenges that have limited their availability and the important role that stakeholders can playing in increasing the number of youth riders on ATVs that are appropriate for their age, size, and abilities.

J. Paul Frantz, Senior Consultant

Applied Safety and Ergonomics, Inc.

Dr. Frantz is a Senior Consultant at Applied Safety and Ergonomics (ASE) and teaches Safety Management at the University of Michigan. Dr. Frantz and his colleagues have conducted research on age appropriateness and recommendations for ATVs and other wheeled and motorized products for youth. They have also studied vehicle human factors related to on- and off-road vehicle control. He will present research regarding the development of age categorization aimed at reducing the number of children riding adult ATVs, including focus group and individual interviews with parents and youth. This work is further informed by a review of data and literature regarding physical, psychomotor, psychological, temperamental/affective, and social development. He will also describe the current practices in youth ATV classification, including the current utilization of the 2010 ANSI/SVIA age classification system.

Charles Jennissen, MD

University of Iowa Department of Emergency Medicine

Why The Need For Speed?-- ATVs, Speed and Head Injuries. Objective: To better understand the relationship between speed and ATV crash-related head injuries. Methods: A retrospective chart review was performed of ATV-related injuries from 2002-2009 at a university hospital. Results: 345 cases were identified; 30% were children <16 years of age. Rollovers (42%) were most common, followed by striking an object (20%) and ejection/fall (13%). Collisions with another ATV occurred in 7% of patients. Victims were struck by the ATV in 21% and pinned by the vehicle in 9% of cases. Higher speeds were associated with lower patient Glasgow Coma Scale (GCS) scores and higher head injury scores. About 20% of victims overall were wearing a helmet. Competitive racers, although helmeted, had more severe head injuries than all other victims. Non-racers without helmets had lower GCS scores than their helmeted peers. Conclusion: The increasing speeds of today's ATVs are likely contributing to more serious injuries, including more severe head injuries. Although helmets are protective, there may be ATV crash speeds or mechanisms of brain injury at higher speeds that reduce helmet effectiveness. All ATVs should have a code-protected, tamper-proof speed governor. This would particularly assist parents in protecting children and teens from the serious risks associated with high operating speeds.

Charles Burhans, Senior Consultant

Applied Safety and Ergonomics, Inc.

Charles Burhans is a Senior Consultant at Applied Safety and Ergonomics (ASE). He has been involved in recent national standards efforts addressing product warnings (e.g., ANSI Z535.6 and he leads an ANSI working group for warnings in electronic media). He has researched and developed standardized warnings for off-road vehicles, and analyzed human factors associated with adult and youth off-road vehicle accidents. Mr. Burhans will present an overview of ATV labeling, owner's manuals, safety videos, and point-of-purchase safety materials. This presentation will highlight various factors associated with youth and adult off-road vehicle accidents and in relation to other motorized vehicles. He will describe data regarding consumer understanding of ATV risks and protective behaviors. For example, he will present the results of focus group interviews with parents and individual interviews with youth about their reactions to

youth ATV warnings. Additionally, he will discuss the context in which safety information is provided to parents about youth operation of ATVs compared to other motorized vehicles with observations from interviews illustrating how parents make decisions about youth operation. He will further discuss the role and influence of standardized safety messages/warnings in promoting ATV safety.

Vehicle Technology: New Innovations

Charles Jennissen, MD

University of Iowa Department of Emergency Medicine

Determining Rider-Vehicle Dynamics Utilizing an ATV Simulator. Objectives: To build an ATV simulator designed to study rider-vehicle dynamics. Methods: We constructed an ATV simulator in the 3D Bio-Motion Research Laboratory at the University of Iowa Center for Computer-Aided Design. An adult-sized ATV is mounted on a unique Moog-FCS motion platform that is capable of producing angular movements with 6-degrees of freedom and acceleration (simulating speed), as well as varying vibration frequencies (simulating rough terrain). Target sensors are attached to the ATV and the subject, and cameras capture rider and vehicle motion during platform movements. Data are entered into NIH-approved 3D modeling software (Visual3D™) and selected measures of rider-vehicle dynamics are determined. Pressure sensors on the handlebars, seat, and footrests will be added to provide additional biomechanical measurements. Results: Six experienced adult ATV operators have been studied during a series of incline, side to side, and vertical changes at a variety of accelerations. Conclusions: Our preliminary data provide proof-of-principle for using our simulator to study "active riding". Future studies include determining how factors such as gender, age, inexperience, and passengers influence rider-vehicle dynamics. Simulator-based technology is a powerful and safe tool to address research questions related to ATV operation that cannot be tested using other study methods.

Gerene Denning, PhD

University of Iowa Department of Emergency Medicine

Optimizing Seat Design to Reduce Multiple Riders on All-Terrain Vehicles. Objectives: Determine the variability of seat design for adult single-person ATVs. Methods: We measured seat placement and length for 77 ATV models (sports and utility) at dealerships and using a novel image-based method. Results: Seat lengths varied from 20-37 inches with significant differences between sport and utility models and between manufacturers. 75% of all seat backs ended near/over the rear axle. Longer seats generally resulted in shorter distances from the handle grips to the front of the seat (distance range 3.3-19 inches). An incline/decline study showed that a rider going downhill should shift his seat to near the rear axle with fully extended arms to avoid a forward rollover. Leaning forward from a normal seated position is sufficient to keep the center of gravity ahead of the rear tires and prevent a backward rollover when riding uphill. Conclusions: A wide variability in seat length was observed. Seats starting closer to the handle grips allow smaller children to be in front of adult drivers, or allow younger drivers. A shorter seat starting further from the handlebars and not extending beyond the rear axle would reduce the space available for passengers. Seat design is a potentially valuable approach to ATV-related injury prevention.

Chandrashekhar Thorbole, Director

TST LLC & University of Arkansas

ATV crashes involving rollovers are mainly governed by factors such as an ATV's dynamic characteristics, terrain properties, and rider performance. To develop successful safety strategies, ATV crash reconstruction requires detailed crash site surveys and proper understanding of injuries involved, which is often time consuming and costly. Computer simulation technology, widely used in various engineering fields to improve occupant protection features, could be applied to the field of ATV safety. The requirements of an accurate dynamic ATV model, ATD (Anthropomorphic Test Device) models, and terrain environment are essential for any successful ATV crash simulation. In order to successfully conduct sensitivity analysis to understand the most significant factors dictating injury outcomes the ATD must possess bio-fidelity of a bicycle or motorcycle rider, the ability to grip a handle bar, and have a human face profile in order to facilitate correct helmet fit. The Arkansas ATV Safety Research group has developed a computer model of an ATV which can be used to simulate crashes. Future injury simulations will be conducted utilizing a rider and passenger. Pending activities also involve the development of a child rider ATD model for child injury prevention education and the development of applications for testing ATV helmets.

Vehicle Technology: Roll-Over Protection

Paul Vitrano, Executive Vice President

Specialty Vehicle Institute of America

ATV manufacturers strive to constantly improve and innovate their vehicles. The pursuit of innovation, however, must be balanced against the imperative to only introduce proven technologies that will not lead to unintended consequences. Innovations also must be considered in the context of longstanding standards, now mandatory, that have been developed through collaboration among industry, government and other stakeholders. The Specialty Vehicle Institute of America (SVIA) is the American National Standards Institute accredited standards developing organization for the four-wheel ATV standard. SVIA's Executive Vice President, Paul Vitrano, will discuss innovations that have and have not been implemented, including features in the areas of handling, braking, drivetrain and lighting.

Jim Helmkamp, PhD, MS, Senior Epidemiologist

National Institute for Occupational Safety and Health (NIOSH)

Western States Office, Program Coordinator, NORA TWU Sector

Hundreds of men, women and children are killed in ATV crashes each year with tens of thousands more seriously injured requiring emergency care. Between 35 and 65% of crashes involve tipping, flipping or rolling of the ATV. There has been much research underpinning these types of incidents, but little attention to identifying effective engineering solutions to minimize the risk in the event of a rollover. Crush protection devices (e.g., Quad Bar) provide increased protection to the rider when the ATV rolls. Australian research suggests that fitting ATVs with Quad Bars could potentially reduce the number of ATV deaths by up to 40%. The Quad Bar (TM) CPD is a small unobtrusive, hairpin shaped hoop mounted on the ATV behind the rider designed to counter some of the risks associated with rollovers. The Quad Bar can be an

important safety modification that can have immediate impact to reduce death and injury from rollovers. Other designs are being tested in New Zealand and Sweden.

Raphael Grzebieta, Professor

Transport and Road Safety (TARS), University of New South Wales

Results of a previous major study in Australia examining Quad Bike (ATV) safety, measures for improved stability and the feasibility of fitting effective occupant rollover protection system (ROPS), will be presented. Around 50% of Australian ATV fatalities and injuries were caused by the vehicle rolling on top of the rider with resultant crush injuries and/or pinning them down causing asphyxia. Computer modelling demonstrates it is possible to design a practical ROPS that prevents such deaths and injuries. Also discussed will be analyses revealing fundamental flaws in basic assumptions and validation of the method used by industry to reject ROPS fitment, the ISO 13232 methodology. The paper also outlines a research program to develop a New Quad Assessment Program (NQAD) consumer tests ranking ATV stability and crush protection. Experience from the past 30 years in automotive safety has demonstrated a dramatic increase in safety of passenger vehicles resulting mainly from the well-publicised IIHS, NCAP, ANCAP and EuroCAP consumer testing. From a position of significant resistance by most automotive manufacturers in the 1980's, there has been an almost complete reversal in industry activity resulting in improved vehicle safety. A similar program for ATV's would hopefully result in a similar effect.

David Robertson

Quadbar Australia

The Quadbar Crush Protection Device has been used successfully in Australia for a number of years now and has proven effective at preventing injuries and deaths associated with ATV rollovers. Monash University defines a Crush Protection Device (CPD) as *a structure designed to form a protective space between the bike and the ground in the event of roll over. Such devices aim to prevent or reduce rider injuries incurred due to crushing or asphyxiation. In general, CPDs are not designed to be used with occupant restraints, thereby allowing the use of active riding techniques and rider separation from the vehicle during loss of control events*. Presented will be the research study by the University of Southern Queensland and independent engineering reports on the Quadbar CPD. Real life case studies into accidents involving roll over and the effectiveness of the Quadbar at preventing injuries associated with these roll over events will also be discussed.

Jerry Johnson, Founder and CEO

PRO-TEC ATV SAFETY SYSTEM

I will share the protection value of the PRO-TEC ATV SAFETY along with our long term plans for teaching and promoting ATV Safety throughout the US school system.

Chris Van Ee, Principal Engineer

Design Research Engineering

ATV rollover events can lead to serious and fatal injuries. Field data indicate that some of these injuries result from ATV contact with the rider when positioned between the ATV and the ground. Crush protection devices (CPDs) are intended to reduce this injury mode by reducing

the frequency of inverted ATV-rider contact. Currently, field data of real-world ATV rollovers is primarily limited to injury causing events and lack ATV and occupant dynamics necessary to evaluate the injury mitigation effectiveness and unintended consequences of CPDs. To increase understanding of ATV and rider dynamics for injury and non-injury rollovers, we collected and analyzed videos of real-world ATV rollover events identifying vehicle, environment, and rider factors. Vehicle dynamics and rider responses, including dismount kinematics, were analyzed to better understand rollover ATV-rider contact and non-contact scenarios. Active rider dismount was a common and effective strategy to avoid injurious ATV-rider contact. Video analysis and laboratory investigation demonstrates that one type of CPD may obstruct successful rider dismount and may result in injurious CPD contact with a dismounted rider who was otherwise uninjured. This analysis represents an important contribution to understanding the determinants of rider injury associated with ATV rollovers and the potential influence of a CPD.

Consumer Awareness: ATV Dealers and Teens

Charles Jennissen, MD

University of Iowa Department of Emergency Medicine

The Safety Information and Guidance Provided to Parents by All-Terrain Vehicle Dealers and Sales Representatives' Objective: To determine the practice of ATV dealers and salespersons with respect to providing safety information since enactment of the 2009 U.S. Consumer Product Safety Improvement Act. Methods: A "secret buyer" method was utilized to evaluate seller practices. Results: 50 dealerships from 4 states were studied. 35 subjects (70%) were willing to show and discuss selling an adult-sized ATV when told that the purchase was for a 12 year old. Seven (14%) responded that ATVs should not have extra riders when the investigator made statements about the adequacy of a seat being long enough for a child to give a sibling rides. Only one subject, when prompted, informed the investigator about the need for a 12 year old to complete ATV safety training to drive in a public ATV park. Conclusions: Most ATV sellers in this study failed to follow requirements regarding age recommendations or to provide other safety information. Those who did often voiced concerns about possible negative repercussions from violations. Dealership compliance would likely benefit from increased enforcement, training, and resources. However, a "don't ask, don't tell" relationship between seller and buyer was alluded to during the study. This practice would predictably limit the impact of regulation enforcement.

F.S. “Sandy” Stroope, III, Dealer Principal

Boat World Honda Polaris

Chair, Arkansas Motor Vehicle Commission and President Arkansas Motorcycle Dealers Association. ATV dealers have a responsibility to communicate important information to consumers at the point of purchase to help them make informed and correct decisions when purchasing an ATV, especially one for a young rider. I would like to share the types of information that dealers provide to consumers, such as on-vehicle and hang-tag warnings, age recommendations and the offer of free training. As Chair of our state Motor Vehicle Commission, I also have a role in making sure that dealers properly advertise ATVs for sale. I would like to share examples of responsible advertising as well as circumstances when the Motor Vehicle Commission has (or would have to) intervene(d) to stop improper advertisement of ATVs.

Tom Yager, Vice President

Specialty Vehicle Institute of America (SVIA)

The SVIA and its member and participating companies engage in a number of efforts to create ATV safety awareness to purchasers and prospective purchasers. One of the latest offerings in our efforts to improve consumer awareness is the ASI ATV Sales Force E-Course. This on-line course is intended for ATV dealership sales staff, the vital link between the manufacturer and the purchaser. The new E-Course is intended to help ensure the safety of ATV customers by having a sales force that is well-informed about basic ATV safety principles, rider training, and matching an ATV to the intended rider. The course is under one hour long and includes a quiz at the end that must be successfully completed to receive credit. Information about this interesting and informative course was communicated to SVIA member company dealers. SVIA's Vice President, Tom Yager would like to share this latest effort to help ensure new and existing dealer personnel are best equipped to increase consumer awareness of ATV safety.

Charles Jennissen, MD

University of Iowa Department of Emergency Medicine

Adolescent All-Terrain Vehicle Exposure and Riding Behaviors

Objectives: To determine adolescent exposure to ATVs and their riding behaviors. Methods: A survey was administered to ~3,100 students, mostly 11-15 years of age, as part of an in-classroom ATV safety program. Results: Participants were distributed between urban (38%), rural (24%), and isolated rural (38%) communities. 85% reported riding an ATV at least a few times a year and 31% reported riding at least once a week. For those exposed, 92% had ridden with more than one person, 81% had been on a public road, and over 60% reported never or almost never wearing a helmet. 54% engaged in all three unsafe behaviors; 2% engaged in none. 59% had been in at least one ATV crash. Students from isolated rural communities were more likely to have ridden an ATV in the last year relative to their peers, but the likelihood of a crash was not different by rurality. Increased crash likelihood was seen for males and for youth engaged in multiple risky behaviors.

Conclusions: A high percentage of youths in Iowa have been exposed to ATVs, engage in unsafe behaviors, and have experienced a crash. Significant efforts are needed to reduce ATV-related deaths and injuries in this high-risk pediatric population.

Consumer Awareness: Getting the Message Out

Sue DeLoretto-Rabe, CoFounder and Carolyn Anderson, CoFounder

Concerned Families for ATV Safety

Concerned Families for ATV safety was established in 2005 by three mothers who have lost a child due to an All Terrain Vehicle (ATV) accident. Our non-profit organization provides support to survivors who have suffered injuries or lives due to ATVs. The organization also works to raise awareness of the need for stricter safety standards that will enforce existing laws and keep children under the age of 16 from riding or driving ATVs. Our organization has grown into a network of parents worldwide who have come together as a unit to provide support and safety education in the form of advocacy kits, news broadcasts, research projects and medical statistics. We all share the same goal to protect children and educate parents of the dangers

ATV's pose to children under the age of 16. We would like to speak on the topic of Consumer Awareness. We have gotten so many emails from parents AFTER their child has died that always say the same thing, "If only I had known." We plan to show how the message just isn't getting out clearly, not just to the consumers, but the entire public.

Russ Ehnes, Executive Director

NOHVCC

The National Off-Highway Vehicle Conservation Council (NOHVCC) would like to present a session about a program that is currently being developed to help individuals interested in participating in off-highway vehicle (OHV) activities, including ATV riding, for the first time get off on the right foot. The video-based program will help new riders make safe and responsible decisions when they become participants in OHV recreational activities. The videos will help them make decisions regarding the type and size of ATV that might be appropriate for them and family members, where they can get the proper safety training and why it is important to become trained, what types of safety gear are available and required to ride, where they can get information about legal and safe riding opportunities, and how they can become involved with organizations that promote safe and legal riding in their area.

Charles Jennissen, MD

University of Iowa Department of Emergency Medicine

The Anticipatory Guidance Provided by Primary Healthcare Providers with Regards to ATV Safety and Injury Prevention

Objectives: To determine the ATV anticipatory guidance practices of primary care providers, as well as their attitudes, knowledge, and the barriers faced in educating families about the risk of ATV use. Methods: An electronic survey was administered to primary care providers belonging to Iowa state medical societies. Results: More than 60% of respondents (N=218) believed that providing ATV anticipatory guidance was important. However, 78% gave ATV safety counseling less than 10% of the time during regular pediatric exams, and only 12% did so greater than 25% of the time. Families rarely ask providers for advice on ATV safety issues; 84% of providers were asked once a year or less. ATV knowledge scores were low (median score 2 of 12); however, those with previous ATV exposure had significantly higher scores. Many respondents affirmed insufficient knowledge (47%) and inadequate resources (63%), but the most commonly identified barrier was that it was not a routine part of their practice.

Conclusions: Providers in the study demonstrated limited knowledge, reported multiple barriers, and provided little ATV safety counseling. However, they consider ATV anticipatory guidance important for their patients. Armed with increased knowledge and appropriate resources, providers could play a significant role in promoting ATV safety.

Mary Aitken MD MPH, Professor of Pediatrics

University of Arkansas for Medical Sciences

Education for parents and youth riders of all-terrain vehicles (ATVs) has focused on increasing rider use of helmets and other safety equipment, along with reducing other risky behaviors on the vehicles (passengers, road use). Recent focus group and survey data collected by the University of Arkansas for Medical Sciences ATV research group has led to educational material that is

clearer and more practical. Users requested information that demonstrated consequences of risky ATV use and targeted both parents and youth riders. The focus group data also indicated that many users have a very inaccurate perception of ATV risk and stability, thereby reducing the perceived need for use of personal safety equipment. We are therefore working with engineers to develop validated computer models of ATVs to simulate performance with child riders and passengers. Recent speed, inclination and surface simulation models are compelling regarding risk to child riders and riders with passengers, showing ejection and ATV instability even at low speeds (10 mph) in some scenarios. When fully validated, these models may inform educational interventions to provide users with more realistic ATV safety images and motivate individual behavior change. The computer simulations can also highlight where ATV stability and performance may be improved.

Ty van Hooydonk, Director, Communications / ASI Instructor

ATV Safety Institute

The ATV Safety Institute's communications department has worked for years on consumer awareness efforts informing ATV enthusiasts about the right way to buy and ride their machines. An ASI panelist will share highlights of an ongoing media campaign delivering key safety messages to broad audiences. The presentation will come just days after an ASI Autumn ATV Safety Week event near D.C., which will host capitol-based media and other key influencers who can learn about rider training and the ASI's Golden Rules. The department works with some of the largest, most read and most watched media in the country, from network morning news programs such as the "Today" show, to affiliates, magazines and newspapers. The campaign has taken dozens of journalists through the ASI RiderCourse, even hosting New York writers and broadcasters at the first and only training session ever held inside Manhattan, the center of the media world. Besides active safety promotion, the department also makes valuable information available to anyone anytime online. The ASI Website is the first listing when Googling "ATV safety," and there anyone will find brief, content-packed videos about training courses, parental responsibility, proper safety gear and preparing to ride. It's a far-ranging safety awareness program.

Training: Reaching the Next Generation

Karen Umphress, IT and Project Manager

National Off-Highway Vehicle Conservation Council (NOHVCC)

The National Off-Highway Vehicle Conservation Council (NOHVCC) is a non-profit educational foundation that develops and provides programs and materials to further responsible off-highway vehicle (OHV) recreation. Project Manager, Karen Umphress, would like to share NOHVCC's programs to communicate positive messages to kids regarding the safe and responsible use of ATVs. Since 2004, NOHVCC has delivered its highly successful "Adventure Trail" educational series. The multi-dimensional program is directed to youth riders and addresses twelve primary messages that promote safe and responsible use. The Adventure Trail trailer displays posters that graphically communicate each message. As the kids travel along the "trail," they complete a fun quiz and then are rewarded with an activity book, a CD with educational games, and other fun items to reinforce the messages. At its conference last month, NOHVCC unveiled its latest project to deliver safety messages to kids in their schools. NOHVCC entered a partnership with School Media, an organization that places messages

regarding health and safety, to develop OHVs banners for placement on lockers, floors and walls in the schools. The messages include encouraging safety training, remaining sober and wearing protective gear. A pilot project recently was conducted and the feedback was very positive.

Cam Arnold, VP

Right Rider Access Fund

The Right Rider Access Fund sponsored "Do the Ride Thing", an ATV and dirt bike safety video contest, in collaboration with the ATV Safety Institute and the Motorcycle Safety Foundation. "Do the Ride Thing" enhances young riders' knowledge of the "Golden Rules" of ATV safety while empowering them to communicate safety messages to their peers through their own PSA video. The contest, in its third year, ran from June 1 to August 15, 2012 and offered 19 prizes totaling $8,500. Students ages six to 18 could enter. Creating a safety video that highlights one or more of ASI's "Golden Rules" is a great way to motivate and inform the public - especially kids and their parents - about the safe and responsible use of all-terrain vehicles. The contest harnesses the social networking power of YouTube and it gives kids the opportunity to "Do the Ride Thing" and help other kids ride safe/ride smart.

Gerene Denning, PhD

University of Iowa Department of Emergency Medicine

Safety Tips for ATV Riders: Increasing Adolescent ATV Safety Knowledge Through an In-Classroom Educational Intervention. Objectives: To determine the effectiveness of an in-classroom ATV safety education program that targets younger adolescents and highlights the 10 STARs--Safety Tips for ATV Riders. Methods: An audience response system was utilized to obtain data before and after the educational sessions. A one year follow-up written survey was administered. Results: About 2000 students in thirteen Iowa schools received the ATV safety program; 10 schools participated in the follow-up study. On the three knowledge questions, pre-intervention correct scores were 52%, 27% and 46% which rose to 93%, 80% and 79% on post-exam, respectively. Immediately after the program, 44% said they were likely or very likely to use the ATV safety tips, while 36% said they were unlikely or very unlikely to do so. One-year follow-up knowledge question scores were 77%, 45% and 58%. Lower percentages of students reported having ridden on an ATV with passengers or on a public road in the year following the education program. There were no differences in helmet use. Conclusion: Although it's unclear if ATV safety behavior definitely improved, the classroom educational intervention was able to increase short and long term safety knowledge. Repeated interventions may improve both knowledge retention and safety behaviors.

Robin Schier, DNP, APRN, CPNP AC/PC

Assistant Professor of Nursing

The University of Texas Health Science Center at Houston

ATV rider safety training, education and danger awareness has become the major focus on reducing the incidents of injuries and deaths in children under the age of 16 years. Numerous studies and professional organizations have recommended mandatory completion of an effective ATV safety training and education for children, however, no studies have identified what effective safety training looks like or historically why there is such a low attendance and involvement in these efforts . Research shows that only 4–11% of drivers reported attending an

ATV safety education course. Similarly, many studies have indicated only one-fifth of youth have completed ATV safety training with many of them indicating that training was not available.

My doctoral project (currently in press with Journal of Trauma) at Vanderbilt University was dedicated to understanding what the barriers and facilitators were to youth under 16 years of age and ATV safety education and training. The aim of this project was to develop and implement a pilot-version, parent survey assessing barriers against and facilitators for youth under 16 years of age attending the ASI RiderCourse[sm] in Tennessee. This project examined the only national ATV safety course given by ASI to determine the low enrollment in this course. No previously validated survey instrument for parents was found, therefore, survey development for this project was based on injury prevention and survey development literature, and personal experience during the attendance of a RiderCourse[sm]

The knowledge gained from survey results will help guide the development of future projects that are needed to contribute to the body of knowledge concerning ATV safety and children. Many questions remain unanswered: Are there sufficient ATV safety training courses? Are there direct barriers to enrollment in these courses? Does the public feel the need for formal ATV education? Are the available classes effective for children? Is the RiderCourse[sm] student handbook written so children of all ages can understand and comprehend the material? Is it even appropriate to train and educate children on ATV use? Can ATV use ever become a safe, recreational activity for children under the age of 16 years?

Patricia Wellen, Director, Research & Program Innovation

Boy Scouts of America

The Boy Scouts of America's Innovation Team seeks fun and safe programs to enhance retention and recruitment and fulfill the aims of Scouting; character development, participatory citizenship, and physical fitness. We have been successful in doing this by designing programs based on what youth want. In a survey of Scouts and non-Scouts in 2009, we found that riding ATV's was the fourth highest ranked activity they wanted to try. This finding led to a partnership between the BSA and the ATV Safety Institute to provide an ATV rider education pilot program in 2010 and 2011. This program was so successful that in 2012 it became a part of the camping program and is currently conducted at BSA camps across the country. This program has grown from being offered in four camps in 2010 to being offered in 18 camps this past summer, and we anticipate even greater growth during the 2013 camping season. Older Scouts are returning to camp to take part in the ATV program, which is helping us achieve our retention goal. The ATV program is also helping us achieve our goal of having activities youth have never had the opportunity to experience since more than 60 percent of the youth participating have never ridden an ATV before. And, the ATV rider education program is exceeding Scouts expectations - now that's FUN!

Hector Tavarez, Executive Director

Egg Harbor Township Police Athletic League

Captain Hector Tavarez, Retired, Egg Harbor Township Police: I am a retired police captain who served 25 years in many capacities, including Detective Sergeant in charge of our Juvenile and Community Service Unit for six years. One of my responsibilities was supervising crimes against and involving children. In the last 15 years I have also been the driving force behind the

development and construction of the Egg Harbor Township Police Athletics League's Ready to Ride, OHV park. The park is 35 acres located in the heart of the township. In my years, I have seen the destruction that drugs, alcohol and boredom can have on the life of a child and their families. I have also seen lives and families saved with the introduction of positive activities including ATV riding. Training is a critical part of Ready to Ride's success. We are able to reach young riders who otherwise would not receive training. For experienced riders, we require a Facility Safety Orientation in which our volunteers evaluate the riders' ability prior to granting certification. For novice riders, we offer comprehensive Training for New Riders by appointment and also recognize the ATV Safety Institute's Rider Course.

Training: New Innovations in Training

Raymond Ochs, Vice President - Training Systems

All-Terrain Vehicle Safety Institute

The ATV Safety Institute (ASI) believes in the value of high-quality safety education and training that puts contemporary learning theory into effective practice. Safety countermeasures need to address several audiences, from novice riders to enthusiasts, and to leverage several delivery mechanisms, from electronic and web-based formats to classroom and hands-on training. For nearly 25 years, the core ASI program has been the ATV RiderCourse. In an effort to make the ATV RiderCourse more accessible, ASI recently developed an alternative delivery and participation option through a two-part E-Course and S-Course. In complementing and reinforcing each other, the E-Course provides cognitive learning through three age-appropriate modules while the S-Course provides the skills training and safe riding practices. These courses along with supplementary public information and education programs such as the youth-oriented Treadsylvania, a fun, and engaging web-based game, provide a multi-pronged approach. Because the heart of the ATV RiderCourse and other interactive programs is the dynamic relationship of rider and Instructor, ASI provides initial Instructor training processes coupled with formal development opportunities to foster effective teacher-learner transactions. The result is a student centered instructional strategy that helps riders not only value safety, but internalize safe riding practices in their day-to-day ATV use.

Pamela Ardern, State 4-H Program Leader

Clemson University

ATV Training: Reaching the Next Generation: My name is Pamela Ardern and I serve as the South Carolina State 4-H Program Leader - Clemson University Cooperative Extension. I have been with the university for 28 years and I'm currently working with others across the state to address ATV Safety. 4-H, the youth development program of the Land-Grant University system, has been directly involved in ATV safety education since the mid 1980’s. 4-H has partnered with the ATV Safety Institute and others to deliver sustainable community based education programs. These programs utilize the hands-on ASI RiderCourse, the online ASI E-Course, nationally developed 4-H ATV safety curriculum and other educational resources to train educators and volunteers to deliver ATV safety education to youth. 4-H ATV safety provides structured learning, encouragement and adult mentoring of youth, which plays a vital role in helping youth gain decision-making skills around risky behaviors and riding ATVs safely. 4-H is establishing cohesive and committed state-level teams and partnerships that can accomplish more than just one or two individuals or a single organization. By having large and diverse partnerships

representing a wide array of interests, 4-H brings more perspectives to address ATV safety, provide more resources, generate more ideas, and create positive approaches.

Christopher McNeil, Owner

McNeil Training Simulators

Wyoming ORV Safety and Education Program & ATV Safety Institute

McNeil Simulators (ohvsimulators.com): ATV Safety Awareness Simulator Abstract: The ATV Simulator course is intended to be taught at area schools. Used as a tool to promote State's OHV rules and regulations, active riding techniques, and participation in a required or not safety rider course in a statewide outreach. Students are guided through lessons in a predictable and well sequenced manner. Five major topics are stressed: 1. Safety Gear. 2. Proper fitting guidelines. 3. Center of gravity showing physics of the machine. 4. Machine's capabilities and operator's abilities. 5. Speed vs. Control. The Simulator is a mechanical devise that hydraulically simulates angular movements of an ATV traveling uphill, downhill, side hills, cornering, or a combination of movements. Combined with a series of lessons from start to finish different active riding techniques are achieved. The student actively takes the opportunity to feel the movement-angular forces, and learns proper safe riding skills per instruction eye to eye and some video if preferred. Therefore, instruction can be corrected and positively reinforced if needed. Along with riding skills; pre-riding safety (proper safety gear, weight vs. machine size, center of gravity instruction, hazards of riding double, other) is emphasized. Riding ethics on public lands is also stressed. Average class time is 50 minutes. I have reached over 30,000 students this exciting new awareness program always stressing the need to take a hands-on rider course. Seven other States are now using the simulator as well. It has become a valuable tool for ATV awareness safety training.

Jack Boles, Director - Arkansas 4-H ATV Safety Program

University of Arkansas Division of Agriculture

My name is Jack Boles and I serve as Director of the Arkansas 4-H ATV Safety Program through the University of Arkansas CES. I have been with the university for 25 years and have been involved in 4-H ATV Safety education at both the county and state level for 5 years. On a national scale, ATV Safety promotional efforts focus not only on ATV safety as an issue, but also on connecting with the many educational efforts being conducted on the state and national level. Promotion guides individuals towards more intensive and substantial involvement in ATV safety training, with the ultimate goal of participation in an ASI RiderCourse training. 4-H is involved due to the fact that many of the 14 million underserved ATV riders who need training are youth. Promotional efforts include over 30,000 views on websites operated by Land-Grant Universities and national organizations, as well as 10 million plus contacts made through print, television and communication channels. One million plus copies of 4-H ATV safety brochures have been shared with youth and adults. Over 12,000 Copies of National 4-H ATV Safety Leader's Guide are being utilized by trained educators and volunteers to deliver ATV safety education to youth.

State Legislation: Enforcement's Role in Regulation

Gerene Denning, PhD

University of Iowa Department of Emergency Medicine

High Proportions of Roadway Deaths and Injuries on ATVs Suggest Poor Knowledge and Compliance with Road Use Laws. Objectives: To compare fatal and non-fatal ATV crashes on and off the road. Methods: Retrospective studies were performed using national fatality data (CPSC) and statewide injury data. Results: From 1985-2009, 62% of U.S. ATV deaths resulted from roadway crashes, and roadway deaths since 1998 have increased at a greater rate than off-road deaths. Fatal roadway crashes were more likely than off-road crashes to result in multiple deaths and to involve multiple riders, higher alcohol use, more collisions, and more head injuries. Similarly, non-fatal Iowa roadway crashes (2002-2009) involved more passengers, alcohol use, and collisions as compared to off-road crashes. Helmet use was significantly lower in roadway crashes relative to off-road; and more severe injuries overall, including head injuries, characterized roadway crashes. Both studies showed helmets reduced the likelihood of head injury. Conclusion: Despite road use laws, over half of U.S. ATV-related deaths and one-third of serious injuries in Iowa resulted from roadway crashes. We hypothesize that multiple risk factors exacerbate the inherent difficulty of safely operating ATVs on roads, and that speed and lack of protective equipment increase injury severity. Improving knowledge and enforcement of road use laws may be an effective way to reduce ATV-related deaths and injuries.

Gerene Denning, PhD

University of Iowa Department of Emergency Medicine

Off-Highway Vehicle Parks: Do Increased Regulations and Enforcement Improve All-Terrain Vehicle Safety? Objectives: To determine whether there were differences in crash mechanisms and/or compliance with ATV safety laws and regulations when comparing off-road ATV crashes inside and outside state OHV parks. Methods: Data from our Iowa ATV injury surveillance database (2002-2009) were analyzed. Results: 813 persons were included in the analysis, 6% from OHV park crashes. Relative to outside the parks, a smaller percentage of park victims were under the age of sixteen (7% vs. 31%, $p<0.01$), a lower percentage were passengers (2.5% vs. 13%, $p=0.07$), and a dramatically higher percentage were helmeted (90% vs. 24%, $p<0.0001$). However, park crashes involved more jump-related injuries (34% vs. 5%, $p<0.001$). Mean injury severity scores were not different inside and outside OHV parks, but 5% of outside victims had severe brain injuries (GCS =8) as compared to no park victims. Conclusions: OHV park crashes involved more jump-related events, suggesting that additional approaches are needed to identify high-risk areas and improve park safety. However, park victims exhibited better compliance with ATV safety-related laws and regulations and suffered less severe brain injury outcomes. These findings support the hypothesis that ATV safety regulations with effective enforcement promote safe behaviors and may prevent injuries.

Charles Jennissen, MD

University of Iowa Department of Emergency Medicine

The Effect of Passengers on All-Terrain Vehicle (ATV) Crash Mechanisms and Injuries OBJECTIVES: To understand the effect of passengers on ATV-related crashes and injuries. METHODS: A retrospective chart review was performed of ATV-related injuries from 2002-2009 at a university hospital. RESULTS: 345 cases were identified of which 20% were passengers or drivers with passengers. Females and children were more likely to be passengers. Overall helmet use was low (~20%), and passengers were less likely than operators to wear

helmets. There was a trend observed wherein passengers increased the likelihood of rollovers on sloped terrains, with backward rollovers the most likely to involve passengers. Victims who fell/were ejected to the rear were significantly more likely to have been on an ATV with passengers than were victims of other ejections or those not ejected, and also had more severe head injuries. Self-ejections and forward ejections appeared less likely with passengers. Patients who self-ejected had higher extremity injury scores than patients who fell/were ejected by other mechanisms, but had less severe head injuries. CONCLUSIONS: Passengers on ATVs may be at greater risk for fall/ejection to the rear and rearward falls/ejections appeared to increase the risk of head injury. Strict and well enforced "no passenger" laws could reduce risk of some ATV crashes and injuries.

Jim Helmkamp, PhD, MS, Senior Epidemiologist

NIOSH Western States Office, Program Coordinator, NORA TWU Sector

State-specific ATV fatality rates were compared between 1990-1999 and 2000-2007 grouping states according to helmet, and training and licensure requirements (per SVIA state ATV requirement charts). 2,226 deaths occurred from 1990-1999 at a rate of 0.09 deaths per 100,000 population and 7,231 deaths from 2000-2007 at a rate of 0.32. Male rates were at least six times higher than female rates. Males accounted for about 86% of the deaths overall. Children under 17 years accounted for over one-third of the deaths in the earlier period decreasing to about 17% in the latter. The number of deaths increased 225% from the earlier period to the latter with a three-fold increase in the death rate. There was little collective difference between rates for states with or without helmet requirements and between states with or without training and licensure requirements. Policy-oriented prevention strategies over the past decade seem to have largely failed. This failure may be due to lack of enforcement and the casual attitude of many ATV riders to not wear a helmet or take training.

State Legislation: Effecting Change

Katie & Mark Kearney

Sean Kearney Memorial Foundation

We did not know the dangers of ATV's especially to children. We did not know that children were being critically injured and killed each year from riding ATV's. We did not know it was illegal for a child under the age 10 to ride an ATV in Massachusetts. October 27, 2006 our eight-year-old son Sean died from a traumatic brain injury after falling off an ATV while at a friend's house. After his death we researched how many children are hurt and killed each year on ATV's. We were angry by the numbers and needed to make a change. We contacted state legislators, doctors, law enforcement, and safety groups to advocate for change. We worked for tougher guidelines, age restrictions, training, and penalties. July 31, 2010 Massachusetts's legislators passed " Sean's Law", the toughest OHV law in the nation with an age restriction of 14. Awareness of the law is so important. Working with the Environmental police to develop safety materials and reaching adults and children. We would like to explain and share the materials we using to promote awareness.

Lewis Howe, Executive Director

The Safety Institute, Inc.

The Massachusetts ATV law. In 2010, Massachusetts enacted Sean's Law, an ATV management statute that contains the following requirement: No person under 14 years of age shall operate a recreation utility vehicle or an all terrain vehicle. This is the first statute in the nation to set this age requirement for ATV ridership. The Massachusetts law may be a model for some states, but may not be feasible in others. This presentation will address why the Massachusetts law was enacted as well as post-enactment issues. The presentation will also cover The Safety Institute's efforts working with researchers, survivors, physicians and advocates across the country to continue to devise sound strategies for reducing ATV injuries.

Kathy Van Kleeck, Sr. Vice President, Government Relations

Specialty Vehicle Institute of America

As Sr. Vice President, Government Relations, for the Specialty Vehicle Institute of America since its inception in 1983, I have worked in numerous states to strengthen ATV safety through enactment of state ATV safety legislation and promotion of SVIA's Model State ATV Legislation. These efforts include working not only with state legislators but with a spectrum of stakeholders including the ATV rider community, health professionals, dealers and state agency officials. As noted in the Federal Register notice, certain aspects of safety related to the behavior of ATV operators, such as restrictions governing helmet use, riding on pavement, licensing of riders, and age restrictions are generally a matter left to the states. Operator behavior is an extremely important facet of ATV safety and as such, state legislation is integral in keeping families safe on ATVs. SVIA is very interested in engaging and working with other panelists and Summit attendees toward enactment of additional state safety legislation, particularly in those states that have few or no ATV safety laws and see the Summit as an excellent way to re-ignite the dialog and work together on this vital component.

David Chester, New Mexico Off-highway Vehicle Program Manager

New Mexico Department of Game and Fish

Comprehensive ATV Legislation: The New Mexico Off-Highway Motor Vehicle Act of 2006 is a comprehensive and uniform set of standards for the registration, permitting and safe operation of ATVs and other off-road vehicles, and for the certification of OHV safety training organizations, instructors and guides, and matters related to off-highway vehicle recreation on public lands. The standards focus on protecting the safety of ATV and other off-highway vehicle users, and ensuring responsible and sensitive use on public lands. The Act synthesizes years of lessons learned and experience from health care professionals, land management agencies, private land owners, and practical guidelines provided by industry leaders. Serving the last three years as New Mexico's OHV Program Manager, I have shared New Mexico's OHV Act with other state's who are forming standards for off-road recreation. As the legislative chairman of the International OHV Administrators Association, I have compiled a database of other state's OHV legislation for the use by other program managers and to stay current on legislative trends across North America. Serving 21 years in law enforcement prior to becoming the state off-highway vehicle manager sealed my interest in working with laws that can affect public health and safety.

Appendix B: Discussion Summaries

Note – full transcripts of each session are available upon request

This is a contractor prepared report summarizing the open discussion sessions of the ATV Safety Summit. The views expressed were those of the audience and participants in the Summit and may not reflect the views of, the Commission or its staff.

ATV Safety Summit
October 11-12, 2012

Summary of Summit Session Questions and Discussion

Drafted by Word Wizards, Inc.
April 8, 2013

Highlights

The question and answer periods that followed the prepared presentations in each session shed additional light on the issues under discussion at the ATV Summit. Questions asked, concerns voiced, and issues debated fell into several broad categories.

Key points expressed in these discussion periods are listed below. More detailed accounts of the questions and discussions follow.

Communications and Public Awareness

- There are benefits and limitations associated with various forms of risk communications.
- The medical community is well positioned to educate the public—including adult riders, children, and their parents—about potential dangers and preventive measures surrounding the use of ATVs.
- A wide variety of stakeholders—including industry, government, consumer advocacy groups, and parents—could be effective messengers in support of ATV safety.

Education and Training

- Education targeted to specific populations is the most effective.
- Vehicle characteristics should be the focus of additional research and education.
- The universe of people to be trained in ATV safety should be expanded, and access to the training should be broadened.
- Quality instruction and materials, access to training, and practical skills are key training elements.
- While numerous measures are in place to educate consumers about ATV safety, some gaps remain.
- Some recommendations focus on simulation uses and manufacturing improvements.
- While organizations are providing innovative training content and techniques around the country, a number of obstacles remain.
- Assessing child readiness is a key component of education and training.
- There is significant potential in improving training programs, by providing appropriately sized vehicles; and there is room for optimizing the use of simulator technology, developing appropriate content, and developing instructors.
- Parental engagement, government involvement, and stakeholder collaboration are key to overcoming obstacles to optimal ATV safety training in the future.

Engineering, Design, and Manufacturing

- The question of whether and to what extent Roll-Over Protection Systems (ROPS) prevent injury—and under what circumstances and conditions—is a matter of ongoing debate.
- In addition to the presence of ROPS, rider behavior still plays a role in preventing crush injuries.
- Whether or not ATVs that are made and sold in the United States are equipped with ROPS will depend on numerous factors.
- Product design is an important part of the discussion about accident prevention.

Marketplace Issues

- Issues and challenges include secondary market ATV sales, resource constraints, and the need for more data.
- Vehicle dealers' sales practices are inconsistent when it comes to safety. Responsible vehicle dealers are thorough in their review of safety with potential buyers, while others are simply out to make the sale.
- ATV sales on the secondary market present many safety risks and enforcement challenges.
- The public would like to see greater collaboration and information sharing among stakeholders to address safety education and secondary market issues.

Public Policy

- Legislation and regulations are a good start, but effective enforcement can present challenges.
- Practical recommendations, based on successes and lessons learned, include rider limits, limits on on-road ATV use, and law enforcement training**.**
- Based on successes and lessons learned, recommendations for possible new policy measures include steps to improve sales training, craft messages for youth, and generate stakeholder collaboration.
- Public awareness and safety remain key challenges following enactment of laws.
- Despite legislative success, enforcement potential is limited.
- Detailed data are needed to assess impact and progress on legislative initiatives.
- There is not a lot of support among parents for new mandates, including training.

Research and Data

- Additional study and training are needed in the areas of riding behaviors and concussion.
- If ATV safety laws and regulations are to be based on injury and fatality data, much needs to be done to improve the quality and availability of the data.

- There is a mismatch between the magnitude of research that is needed on ATV safety and the available funding for such research.
- There is a need for more data on other factors of ATV safety.

Vehicle Characteristics and Other Rulemaking

October 11, 2012

Participants in this session discussed the effectiveness and limitations of warning labels and other forms of risk communication; educational activities that would help enhance compliance with safety laws and regulations; and vehicle size and design, especially in relation to size, age, and behavior of riders.

1. There are benefits and limitations associated with various forms of risk communications.
    - There is useful information concerning ATV risks and hazards on the warning labels of ATVs and in owners' manuals; however, the information is useful only if it is read and understood by consumers. Research shows that consumers are not consistently or adequately reading or retaining the important safety information on warning labels.
    - Risk communications often do not adequately make consumers aware of the serious risks of riding an ATV that is not suited in size or design for the rider. In particular, there can be a serious mismatch between the size of the rider, such as a child, and the size of the vehicle.
    - There are wide misperceptions about vehicle characteristics (*e.g.*, tire pressure) with regard to safety. Education programs in schools and community groups should address vehicle characteristics specifically.
    - It is useful for individuals, including young people who have been seriously injured in ATV accidents, to participate in youth education. Through their personal experiences and permanent disabilities, they can make a lasting impression on young audiences, while demonstrating in a poignant way the importance of training and protective gear.
    - There is a danger of over-warning. Information should be brief and concise enough that it will be read and understood. Efforts should be made to communicate the rationale for the warnings.
    - No one understands all of the risks of ATV use. Education is important, but safety laws provide impetus for additional education and research.

2. Education targeted to specific populations is the most effective.
    - Education efforts tend to be effective in regulated ride areas where rules—such as those addressing measures like helmet use, and age and size restrictions—are posted and enforced.

- In other areas, however, it is generally unknown whether riders are reading warnings, following rules, or obtaining training. The challenge is how to protect riders who are riding in less-than-ideal situations.
- Public service announcements are effective, but they need to be aired when targeted audiences are watching, for example, when rural riders are watching agricultural programming.
- Curricula should be developed for school nurses, physical education teachers, and professionals who are in a position to educate riders in military and rural settings.

3. Vehicle characteristics should be the focus of additional research and education.
    - Bearing in mind human error, there should be a special design focus on preventing hazards associated with unsafe riding practices.
    - Characteristics will differ between recreational use of ATVs and use of ATVs for work, such as farming; design and education must take this into account.
    - Human factors engineers need to work with mechanical engineers, together with psychologists, to design safe vehicles. Everyone is doing research, but there would be enormous potential benefit in collaboration and information sharing.
    - Additional research and data are needed with respect to wheel base, lateral and pitch stability, brake performance, and steering positions.
    - One of the most pressing safety challenges, from both a design and education standpoint, concerns the use of transitional models of ATVs, which are often of inappropriate size and design for safe ridership. Transitional models—some with adjustable features—can provide flexibility for families as children grow and needs change; but they can pose serious hazards.
    - There is a need for improved injury surveillance, which could provide more and better information and reveal whether certain vehicle characteristics were the cause.
    - The design and use of ATVs necessitates off-road use only. On-road use should be discouraged or prohibited.
    - More simulator studies would be useful, but resources for these are limited.
    - Studies have shown helmets are effective in preventing head injuries, but not in all cases. There are some extreme circumstances and conditions in which the force of impact prevents adequate protection.

Consumer Awareness – ATV Dealers and Teens

October 11, 2012

This session focused largely on the practices of ATV dealers and their communications with potential buyers on the issue of safety, especially as they pertain to children on vehicles. Participants compared and contrasted the business, regulatory, and cultural environments in Iowa and Arkansas, and shared what kinds of measures and initiatives have worked well in their states.

1. Vehicle dealers' sales practices are inconsistent when it comes to safety. Responsible vehicle dealers are thorough in their review of safety with potential buyers, while others are simply out to make the sale.
    - Many dealers make an honest effort to provide safety information (*e.g.*, pamphlets, brochures, CDs) to ATV purchasers, but often safety does not come up until the closing process, after financing discussions.
    - Because many buyers are experienced ATV riders, dealers do not always perceive a need to go into a fundamental or detailed safety discussion.
    - Likewise, because dealers often know their buyers personally (living in the same small community), dealers know who in the family will be using the vehicle and their ages.
    - Dealers not only have a moral incentive to follow rules governing sales of ATVs for use by children, but also a financial incentive—because of the serious financial repercussions if there is injury.
    - Some dealers skim over or avoid safety discussions for fear of deterring buyers and losing commissions. Dealerships that do not operate on sales commissions often feel less pressured to sell. Therefore, these dealerships are not always so concerned about the safety conversation deterring sales.
    - To encourage child safety, some dealers give away expensive helmets free of charge.
    - Many dealers do not carry youth-sized ATVs, which presents a host of problems in selling to families. Apparently, youth-sized ATVs don't sell. Some dealers make a point of carrying youth-sized vehicles and have good success selling them. Even with the smaller vehicles, parents must supervise children riding ATVs.
    - The ATV Safety Institute's (ASI's) E-Course for dealers attempts to prepare salespersons for real-world sales situations. This includes addressing buyers' don't-ask-don't-tell and everybody's-doing-it attitudes.
    - The e-training for dealers isn't mandatory. Each company has to put e-training into their action plan.
    - There are concerns about whether ATV renters are getting adequate training; however, there does not seem to be a big market for ATV rentals.

2. ATV sales on the secondary market present many safety risks and enforcement challenges.
    - ATVs not sold in dealerships—such as used vehicles sold on the Internet or at yard sales—present safety risks because there is no way to know if they were manufactured or maintained to be safe. There is no regulation of these vehicles. Secondary market sales of ATVs are illegal in Arkansas.
    - Unlike an automobile, there is not always an official bill of sale. Arkansas has titling laws that apply to ATVs, but enforcement is a challenge.
    - Titling should be required for all vehicles.

3. There is not a lot of support among parents for new mandates, including training.
    - Many parents in the regions in which session participants live and work oppose legislative safety measures, including mandatory use of helmets and other protective gear. These parents say they know better what is best for their children.
    - Some parents oppose safety training in schools, but they support training by community organizations such as 4-H.
    - Despite youth safety messages pertaining to size, supervision, and individual assessment of readiness, parents tend to believe their children are exceptional and can handle an ATV.
    - Parents tend to support training; they just don't want it to be mandatory.

4. Based on successes and lessons learned, recommendations include steps to improving sales training, crafting messages for youth, and generating stakeholder collaboration:
    - Working with state OHV programs is beneficial because of crossover with other agencies and stakeholders.
    - Advocacy groups (*e.g.*, children's hospitals, 4-H) can be sources of useful information and support.
    - Sales training—and subsequently, dealer conversations with potential buyers—should focus on how specific injuries (head, spine) occur.
    - If the public has no appetite for hearing that underage children should not ride ATVs, perhaps the message should be that children under age 16 should not ride adult-sized ATVs.
    - Kids can be safety advocates—even for their parents. Automobile seat belts are a good example.
    - Some kids are asking for ATV safety training, citing mandatory training for hunting and boating. Still, many parents do not understand the inherent risks when children ride adult-sized ATVs without training.
    - Mandatory training gets kids on board with safety.

- It has been beneficial to convene multidisciplinary partnerships consisting of manufacturers, retailers, healthcare providers, insurers, community groups, and professional organizations (such as farmers' associations) to look at new messaging. This has been more successful in occupational ATV use, not nearly as much among recreational users, who aren't as eager to come to the table.
- The CPSC should work through ATV user groups—such as motorcycle groups, off-road riding groups, and the Blue Ribbon Coalition.

Training: Reaching the Next Generation

October 11, 2012

Discussion in this session highlighted ways to reach consumers most effectively in the future, building on current practices, successes, and lessons learned. Participants looked at what ATV safety training should entail, how it should be delivered and promoted, and to whom it should be offered.

1. The universe of people to be trained in ATV safety should be expanded, and access should be broadened.
    - Traditionally, it has been assumed that only owners and riders should be trained in ATV safety; in essence, those whose recreational, vocational, or family activities are likely to involve ATVs. However, ATV safety training should be provided to children or others whose friends might give them the opportunity to ride, and those who would benefit from training ahead of time.
    - Training should be made available in a variety of settings, including schools, camps, community organizations, and through hospitals, state fairs, and by insurance companies.
    - There is notable disagreement about whether children under age 16 are physically, cognitively, or emotionally able to ride ATVs safely and whether they should be permitted to do so. Those on both sides cite research supporting their positions. There is agreement that creating awareness of the risks of ATV use and equipping children with safety awareness and skills is beneficial.

2. Quality instruction and materials, access to training, and practical skills are key training elements.
    - To the greatest extent practicable, training should include real world conditions and scenarios.
    - Simulator technology would be effective, but those resources are not widely accessible.
    - Training should give riders an understanding of the importance of proper fit, as well as the ability to operate at safe speeds and distances and navigate varying surface conditions.
    - There should be a sufficient number of instructors who provide training in a manner students will understand and who can monitor students' progress.
    - Organized riding clubs provide good examples of practicing safety.

3. Parental engagement, government involvement, and stakeholder collaboration are key to overcoming obstacles to optimal ATV safety training in the future.
    - No one disagrees that supervision and parental involvement are critical in ensuring the safety of children riding ATVs; however, in laws, regulations, and training materials, “supervision” is defined inconsistently and widely interpreted.
    - Laws are needed that require ATV riders to undergo safety training.
    - ATV safety should be made a national policy priority—for public awareness and funding—on par with gang violence, drug and alcohol abuse, and obesity.
    - Additional research is needed on cognitive development.
    - There should be more collaboration and information sharing among parties who maintain data and produce educational materials. Many organizations are already sharing their information, sharing what has worked well and what hasn’t, along with exchanging ideas for legislative and educational initiatives. There is room for more to be done.

State Legislation: Effecting Change

October 11, 2012

This session focused on ATV safety laws enacted in a number of states and the challenges that come with enactment. The discussion focused largely on laws enacted in Massachusetts and New Mexico, where families of injured ATV riders were involved in advocacy, with participants agreeing that once state legislation is enacted, more remains to be done to promote awareness, enforce safety provisions, and address gaps and limitations in state statutes.

1. Following enactment of laws, public awareness and safety remain key challenges.
    - Once state ATV safety laws are signed into law, the need remains to increase public awareness and education. Currently in Massachusetts, where a law was recently passed, educational materials are being developed to be used in safety training. Nevertheless, many people in the state are not aware of the law.
    - Funding is inadequate for education, public awareness, training, and enforcement.
    - While safe behavior cannot be legislated, there is an opportunity to increase awareness and change perceptions about what is safe.
    - State program managers are working a variety of organizations, including 4H, Boy Scouts, and others, to get the safety message out to those who ride on agricultural land and other private property.
    - Because the United States is diverse, safety education and public awareness efforts, and educational materials should take into account regional and cultural differences and diverse mindsets.
    - Perhaps the U.S. ATV industry could fashion a body after the Insurance Institute for Highway Safety to rate quality and safety of vehicles so consumers are able to make educated purchasing decisions.
    - There would be some challenges with this approach because automobiles and ATVs are very different. In addition, children cannot be expected to make mature buying decisions. Also, rating costs money that isn't readily available.

2. Despite legislative success, enforcement potential is limited.
    - To enforce the new Massachusetts law, there are inadequate and disparate police officers and departments, as well as a shortage of resources for training officers.
    - This has been less of a challenge in New Mexico, where enforcement is high. The CPSC worked closely with authorities in New Mexico.
    - At the national level, there is interest in whether legislative initiatives have reduced injury rates.
    - While both states have made tremendous improvements—in those states and across the board generally—enforcement of the laws is limited to public lands and not private property.

3. Detailed data are needed to assess impact and progress of legislative initiatives.
    - Initial data from the Massachusetts law are encouraging. While it is too early to document a trend, there has been a direct impact on the number of injuries being sustained in targeted age groups.
    - Overall, the CPSC's statistics show that state legislation is having a positive impact on children's safety.
    - New Mexico has seen a decline in its fatality rate since its law was enacted.
    - While Massachusetts and New Mexico have made tremendous improvements, some other states have not.
    - Nevertheless, there is a need for more, and more specific, data. For example: data on the performance and behavior of children who have been properly trained, the extent to which fines have been imposed in states with ATV safety laws, how many ATVs have been sold for child use, and rates of compliance.
    - The CPSC should include in its annual reports or ancillary documents some exposure data, which would help in calculating risk.

Plenary Session 2

October 11, 2012

Following remarks by Commissioners Adler and Nord, Commissioner Nord solicited input from the audience, specifically their frustrations about ATV safety, what recommendations they have, and what actions they'd like the Commission to take, especially as the Commission identifies its priorities and crafts its budget request.

1. Issues and challenges include secondary market ATV sales, resource constraints, and the need for more data.
    - One challenge is the lack of exposure data for ATVs—for example, who rides them, where they're ridden, and for how long. There are exposure studies of hours and miles driven, but what is needed in addition, is information to assess risk by gender, age, and state.
    - ICD-10 data are not particularly useful in reporting causes of ATV-related fatalities and serious injuries. It is difficult to identify causes from hospital data. Changes are needed in the way these data are being presented.
    - From an engineering perspective, the vehicle—not just the driver—needs to be handled in a safe manner.
    - The secondary market for ATVs presents a host of challenges and dangers. Vehicles are sold in so many ways and by so many different parties that providing adequate safety information to the consumer cannot be ensured, nor can adherence to safety standards be guaranteed.
    - There is inadequate funding for ATV injury prevention research; moreover, while there are a lot of good ideas, research efforts are not well coordinated.
    - ATV data provided by the CPSC can be difficult to use, especially for researchers; at times CPSC data can be "an absolute mess." There are often duplications.

2. The public would like to see greater collaboration and information sharing among stakeholders for safety education and addressing secondary market issues.
    - The CPSC should work with stakeholders to provide better and more accurate and valid data about how many people drive ATVs, their ages, and where ATVs are driven.
    - More should be done to track the secondary market of sales of ATVs.
    - The CPSC should make a commitment to form partnerships intended to promote the safe and responsible use of ATVs, including messages that multiple parties agree with. This is consistent with a central theme of the ATV Safety summit—speaking with one voice.

- Areas in which the CPSC could work with stakeholders to craft compelling educational messages might include proper use of the right gear and the importance of adequate eye protection.
- The Commission should make the data it collects and maintains more available to the public in a format that could be used more easily. It should be “clean” and well organized.

Consumer Awareness: Getting the Message Out

October 12, 2012

This session focused on public and private sector efforts to increase awareness and improve consumer education about ATV safety. Discussion centered on measures currently under way to promote safe use of vehicles and gaps that need to be filled with additional measures. The questions and discussion covered four major categories: public awareness, riding behaviors in organized ATV use, the role of physicians in injury education and avoidance, and the role of parents and other stakeholders in elevating safety education.

1. While numerous measures are in place to educate consumers about ATV safety, significant gaps remain.
    - The ATV Safety Institute offers a RiderCourse[SM], which covers the dangers of ATV use by children (a significant concern to participants in this session). ASI also actively promotes eight key safety messages and reinforces those in virtually all of its public communications.
    - The industry's (including ASI's) advertising and marketing appear to promote the appeal and enticement of riding ATVs more than they discuss the dangers.
    - ASI disagrees. The ASI weaves its eight key safety messages into its marketing and its media relations efforts, but news stories about ATVs don't always include these. There is a difference between advertising and media relations. The industry does what it can to promote key messages, but the media presents a story independently.
    - Videos about ATV use that consumers see show ATV use on paved surfaces, giving consumers an unrealistic picture of their intended use.

2. Additional study and training are needed in the areas of riding behaviors and concussion.
    - What appears to be missing from educational material are data on safety issues and injury rates of people who ride in organized clubs versus on their own.
    - From the National Off Highway Vehicle Conservation Council's (NOHVCC) experience, injuries are extremely rare in organized riding events because the organizers require compliance with safety requirements.
    - There is interest in more information, specifically about concussion awareness and training.
    - The NOHVCC is working with the Mayo Clinic on concussion awareness pertaining to concussions in ATV use and traditional and nontraditional sports. There are studies and follow-up studies underway.

- The Centers for Disease Control and Prevention also produces sports concussion management materials. The CPSC should follow suit and also produce recommendations for child safety and concussions.
- In data on ATV accidents, it would be helpful to know if the rider was trained and, if so, where. The level of training will impact riding behavior. We should be more proactive and not wait for the injury records.
- There is a potential for people taking the ASI RiderCourse[SM] to not fully understand the materials and the instruction, if the level of materials and instruction are not matched with the level of fluency or literacy of the students.
- ASI RiderCourse[SM] instructors make sure people understand the instruction, through dialogue, monitoring, and observation.
- Well-maintained and monitored trail systems are a boon to the industry because they tend to experience compliance with safe riding practices.

3. The medical community is well positioned to educate the public—including adult riders, children, and their parents—about potential dangers and prevention measures surrounding the use of ATVs.
    - Primary care physicians should be better informed about ATV risks and be encouraged to engage in proactive dialogue with pediatric and adult patients about ATV use. The risk of injury should be part of any discussion about patient lifestyle.
    - There is an effort under way to create continuing medical education (CME) courses for primary care physicians because CME courses dealing with injury prevention are few. A well-designed course can help change physicians' approaches to health examinations and assessment and to change a worldview about ATV safety.
    - NOHVCC has provided some of the communications used to educate the medical community. Although that is a good start, more needs to be done to engage physicians in dialogue, perhaps through presence at a pediatrics convention.
    - One important thing physicians can do specifically is to ask patients about ATV use when taking patient histories. Doctors ask about a lot of things, but often they do not ask about ATV use. Moreover, patients and their parents often neglect to mention the subject, not realizing ATV use poses a potential health hazard.
    - ATV use should be on par with other health hazards, including fire hazards, smoking, drinking, water sport safety, and others about which physicians normally talk with patients.

4. A wide variety of other stakeholders—including industry, government, consumer advocacy groups, and parents—could be effective messengers in support of ATV safety.

- There are opportunities to heighten consumer awareness about ATV safety, and thought needs to be given about who would be the most effective messengers.
- Parents already are very involved in helping their children learn how to ride bicycles and are almost always present when the child first rides. Likewise, parents should be equally involved in supervising children riding ATVs and ensuring that they are proficient, before letting them ride alone.
- "Supervision" needs to be defined better because it is difficult to supervise a child on a motorized vehicle. Even children riding with their parents have suffered fatal accidents
- While the industry is engaged in communications about safe use of ATVs, they might not be the best messengers because of their dual goals of promoting safety and selling vehicles.
- The industry is always asking: "did we get the right messages out there?"
- Government is well positioned as a safety regulator. Federal accountability laws give regulators the tools to write rules to ensure safety. Regulators should enforce rules that prohibit manufacturers and retailers from selling ATVs for use by children.
- Government needs to be proactive in making ATV safety rules mandatory because the safety message isn't being spread adequately.
- Some organizations, including the American Sand Association and the American Desert Foundation, offer rider safety certification programs, some funded with grants. These initiatives could be promoted as safety measures.
- As the right messengers are being identified, efforts should continue to be made to identify the most important audiences. For example, organized riders tend to be conscientious users of safety gear. An important message is that safety gear is not expensive—often what is already in one's closet is effective.
- Public service announcements (PSAs) continue to be effective avenues for communicating the safety message.
- Organizations should coordinate PSAs. Alternatively, it would be good to have all PSAs stored in one place, one website. The NOHVCC could serve as a clearinghouse.
- The industry could do a better job overseeing the kinds of materials that result from grant money so that the message is more consistent.
- We should be sure that any riders participating in media events—or appearing in photographs or video clips or marketing materials—are wearing protective gear.

Vehicle Technology – New Innovations

October 12, 2012

This session explored issues surrounding ATV technology—research needs, product design, and simulation, as well as recommendations for future efforts by manufacturers, regulators, and other stakeholders.

1. The magnitude of research needed on ATV safety is at odds with the funding available for such research.
    - Additional studies are needed; in such studies, it is important to acquire detailed data on how accidents are happening.
    - Funding is inadequate for injury prevention activities and programs.
    - The field of emergency medicine is playing a role in addressing injury issues; because of its potential, research should continue in this area.
    - The cost of treating injuries is high; stakeholders should consider the costs and benefits of injury prevention.
    - Additional research is needed to explore seat length and design, stability, tilt, and propensity for rollover.
    - Simulation technology is useful in understanding vehicle handling characteristics and evaluating the causes of accidents; and ultimately, simulation technology is helpful in addressing accident prevention.
    - It would be important to look at what funding sources can come from savings, *e.g.*, reducing insurance costs. There are parallels in the marine industry.
    - The cost-benefit discussion is interesting from a regulatory perspective and relevant to manufacturing companies. Regulation doesn't usually add costs; regulation redirects costs. Manufacturers could reallocate costs accordingly—by creating marketing advantages from safety expenditures.

2. Product design is an important part of the discussion about accident prevention.
    - Seat length and design factors in consumer appeal and consumer safety behavior. A longer seat might encourage too many riders/passengers—including children—or pose other safety hazards.
    - Product redesign as a primary rollover prevention measure is all about maintaining stability. Designing for safe handling and adjusting wheel base have shown positive results.
    - Manufacturers do not intentionally lengthen seats to encourage riders to take additional passengers, and their consumer education initiatives discourage such use.

- It would be helpful to see research about whether seats of shorter length would discourage passenger use.
- It would be useful to have data or surveillance on any correlation between seat type and length and riding behavior; perhaps the manufacturers have some of that.
- Data sharing is key. The industry association (SVIA) could serve as a clearinghouse for information on matters such as seat length and other parameters.
- Information sharing should extend to the regulatory process, to ensure information is on the record as regulators continue to review safety issues.
- There are other design issues besides seat length: grip strength, for example.
- Design characteristics—and their safety—vary according to the size/height of the rider.
- Simulations have drawbacks. They aren't always accurate determinants of safety because they can't simulate all human factors.
- Videos from real crashes are helpful.

3. More data are needed on other determinants of ATV safety.
   - Terrain is an important element of simulation and potential area of study.
   - A validated dynamics model might be needed.
   - It is important to look at the broad range of riders over a broad range of conditions.
   - Soil accumulation affects deceleration and braking as it does in mountain biking.
   - It would be useful to build on existing efforts by some institutions that are doing finite element modeling, but there is inadequate funding to do so.
   - There has been excellent research on the simulation side, although differences between simulation and real-world results need to be taken into account, *e.g.*, wedge build-up in front of the tire. Terrain plays a major role in addition to grip strength, handlebar rotation, and design of power steering systems.
   - Rider behavior and other personal factors—physical and mental behavior, level of experience, age—are major determinants of safety, and this varies between on-road and off-road use of vehicles. This presents challenges for modeling.

4. Other recommendations focus on simulation uses and manufacturing improvements.
   - The medical community would be interested in using simulations as an educational outreach for parents because parents often do not understand the science and reasoning behind only one rider.
   - To the extent simulation work is continued, some type of visual should be incorporated, to correlate between what the rider is seeing on the screen and what terrain features are being simulated.

- Simulation analysis should look at incidents in which there no injuries, as well as incidents in which there are injuries.
- Additional recommendations might include adding pressure sensors to seat pans, hand grips, and floor boards, as well as understanding behavioral differences between on-road and off-road drivers better.

Vehicle Technology: Rollover Protection

October 12, 2012

In this session, participants explored the use of various rollover protection structures (ROPS) and devices and discussed the potential for preventing injury. A number of organizations maintain videos of ATV accidents in an attempt to analyze causes, assess the effectiveness of safety devices, and create safety awareness. After viewing and discussing a number of these videos, extensive discussion of the videos ensued. The videos illustrated the types of rollover incidents that occur. There also was additional discussion of data demonstrating the extent to which devices that are installed on vehicles prevent or cause injury. The participants also discussed the pros and cons of installing ROPS on ATVs in the United States.

1. The question of whether and to what extent ROPS prevent injury—and under what circumstances and conditions—is a matter of ongoing debate.
    - We need more exposure data to know how ROPS affect near-misses or potentially fatal crashes.
    - The Quadbar™ does not cause injury; this is based on years of Quadbar™ use.
    - Data are not complete. The percentage of incidents cited in studies is not included in the CPSC's In-Depth Investigations, which cover injury or fatality scenarios. Any credible review of ROPS needs to take into account scenarios in which there is no injury.
    - A sample of rollover simulation showed increased risk for people to be impaled by a Quadbar™.
    - Studies have also shown the Quadbar™ has prevented injury. We need to look at where they have been installed and their usage to determine outcomes.
    - Individual ATV buyers should have the freedom to decide whether to purchase a vehicle equipped with a ROPS or not.
    - Australia's research pertaining to crush protection devices (CPDs) does not consider front rollover situations, which is a glaring omission.

2. In addition to the presence of ROPS, rider behavior still plays a role in preventing crush injuries.
    - As accidents occur, some riders immediately eject themselves from the seat, while others do not, also affecting the effectiveness of protective devices and safety outcomes. Children often do not eject. A significant number of children do attempt an active dismount, and about 70 percent who do, are successful in avoiding injury.
    - Those who know that they are engaging in risky behavior are usually prepared to eject. Sometimes riders instead hold on to the vehicle, and it crushes them.

- Many ATV riders do not wear proper protective equipment such as restraints or seatbelts.
- There needs to be greater focus on getting people to ride the right size vehicle and become trained on proper use.

3. Whether ATVs made and sold in the United States are equipped with ROPS will depend on numerous factors.
   - The CPSC and other independent reviewers have not proven that ROPS provide a benefit or whether there is a trade-off between potential benefit and potential harm. There is no methodology or justification for making those trade-offs.
   - Technology continues to evolve, which changes the dynamics affecting safety measures. For example, power steering makes it easier to handle vehicles, especially on rough terrain. Vehicles are being equipped for functional use. For example, spray tanks are added to some farm vehicles, and tow devices are installed. This affects other devices, including safety devices, added to the vehicle.
   - The Quadbar™ is not a silver bullet and has not been reviewed comprehensively enough. The viability of installing it on an ATV should be based on clear demonstration of benefit.
   - There are many scenarios supporting the safety benefit of the Quadbar™, and the company continues to collect data, constantly incorporating a wide variety of accident scenarios.
   - In ensuring ATV safety, there should be shared responsibility between manufacturers and riders. Manufacturers continue to optimize performance and make technological advancements, implementing voluntary standards. But the rider plays an important role as well, operating the vehicle safely on many different terrains.

Training – New Innovations in Training

October 12, 2012

This session identified obstacles states face in implementing successful ATV training programs and gathered recommendations for creating innovative programs. Participants discussed ways to prepare and develop good trainers and ensure students are able to learn and grasp important safety concepts and techniques. There was extensive discussion about how to determine whether a child is ready to ride safely and safely put training into practice.

1. While organizations are providing innovative training content and techniques around the country, a number of obstacles remain:
    - Training programs for children often do not use appropriate youth-sized ATVs. This is not always a matter of resources but of logistics.
    - Schools usually provide general safety training, but training in ATV safety is not a priority.

2. Assessing child readiness is a key component of education and training.
    - Readiness for ATV training and use among young riders is key. Some states and organizations have developed readiness assessment tools that aid in determining the optimal age at which children can grasp concepts.
    - Education of parents on their need to supervise young riders is essential.
    - There should be more evidence showing when children are ready to ride, even with supervision.

3. There is significant potential for improving training programs by providing appropriately sized vehicles; and there is room for optimizing the use of simulator technology, developing appropriate content, and developing instructors:
    - More youth-sized vehicles should be made available for youth training programs.
    - Efforts should be made to get schools involved in ATV safety education.
    - Simulator technology captures the imagination of young people and gives them an appreciation for vehicle safety, while its interactive format engenders discussion. This should be used to the greatest extent possible.
    - Safety education programs should place greater emphasis on consequences of riding behaviors.
    - Educational materials should be written at age appropriate levels.
    - More data and literature are needed to support youth readiness, although ultimate decisions about readiness could be left to individuals.
    - There have been successes in instructor training, preparation, and certification. These serve as good examples, although evaluation of effectiveness would be a useful addition.

- Additional study is needed to determine whether a school-based driver education model should be replicated for ATV safety.

State Legislation: Enforcement's Role in Regulation

October 12, 2012

This session focused on ATV safety laws and how enforcement of those laws can play a crucial role in their effectiveness. The participants discussed methods of educating law enforcement on local laws, the difference between enforcement on public versus private lands, occupational versus recreational use, and the limitation of the data available.

1. Following enactment of laws, education of the public and law enforcement is crucial.
    - Law enforcement is a great partner in education and enforcement.
    - There needs to be comprehensive training for law enforcement officers.
    - Peer-to-peer informational programs, such as trail ranger or trail master programs, can help to educate the public.
    - Punishment should fit the crime; education efforts at the first offense can be successful.
    - Punishment for repeat offenders can be deterrents to others.

2. Enforcement is limited in certain riding situations.
    - There in an inference required that parks enforce regulations.
    - Enforcement can be limited in state-run parks due to recourse limitation.
    - Non-pursuit policies can affect enforcement.
    - State, local, and park rules and regulations can affect the local issues and local users.
    - Those who ride in the road are more likely to be practicing other warned-against behavior.

3. Occupational and farm use have different use and injury patterns and need different enforcement than recreational use.
    - West Virginia data include "scores" of deaths of people who were in their 80s, and many of those incidents were farm-use.
    - ATVs are still the vehicle of choice on many farms.
    - Off-road vehicle parks are more likely to require training certificates and helmets.
    - Parks should avoid overcrowding.
    - People do not buy ATVs to ride in the street.
    - On-road use is common and increasing.

4. Data on enforcement are limited.
    - Accident reports from DOT data do not always contain a VIN nor can that VIN be cross-referenced to the state vehicle registration.
    - No data are available on citations issues.
    - ATV accidents are often coded as other motor vehicles.
    - Data on parental supervision are difficult to obtain.

Appendix C: Public Comments by Topic Area

All comments can be read in their entirety on regulations.gov. The comments below show quotes relevant to the topic area. Most comments are quoted in their entirety, although the content may be split among topic areas. Longer comments (*i.e.*, more than 5 pages) have been summarized with key quotations used when possible.

The full docket can be read at: http://www.regulations.gov/#!docketDetail;D=CPSC-2012-0048

Children and teens

- *"We don't expect children to have the good judgment to drive a car, and we shouldn't expect them to have the good judgment to drive an ATV either. The states have come to their own conclusions as to the minimum age when a person has good enough judgment to drive on the roads. That age should be used as the minimum for driving an ATV on or off the roads."*

- *"Until these laws are passed, manufacturer warnings wil continue to be ignored. Until these laws are passed, children (especially those between 10 and 14 years old) will continue to push these machines above their mental, physical and cognitive skills. These children do not have the 'fear' that is needed to respect and operate ATVs as adults. Off road ATVs go highway speeds just as on road vehicles. When will this country realize it is the same as allowing a child on a national highway in control of an automobile? Children have no voice. Their parents ignorance, just as I was, will allow these dangers to exist. It is up to lawmaklers [sic] to wake up and change these laws for the sake of saving lives. Do your research, talk to Doctors and Physicians, trauma centers and the like. They continue to try to put these children back together."*

- "*The purpose of this correspondence is to express my concerns that the ATV industry isn't doing enough in terms of stressing the dangers ATV's pose to young children. Despite recent efforts to increase safety awareness and warning labels, countless children are still being seriously injured and killed each year as a result of ATV use. It is hard to ignore the fact that ATV's and children are a deadly combination in light of statistics, which in my opinion are grossly underestimated."*

- "*ATV's are inherently dangerous for those without the physical and mental capabilities to handle vehicles that are overpowered and lacking in safety features. They require complex handling skills on par with the judgement and maturity as someone driving a car, if not more so, and yet we don't let children drive cars for obvious reasons."*

- *"The ATV Industry has made their focus on training and supervision for children riding ATV's, yet failing when it comes to keeping children under 16 years old off Adult Size ATV's. The 'golden rules' use to state no child under the age of 16 should ever be on an ATV larger than a 90cc engine because that was considered an Adult Size ATV. Today their new golden rules just say 'Best Fit' which can mean almost any size machine. They have just changed the wording to fit their new models, which are really ADULT SIZE ATV'S, with engines sizes for children's machines in upwards but not limited to 200cc. This is totally unacceptable and doesn't make any sense if we are truly trying to find ways to decrease the deaths and*

injuries for children. The manufactures make money off these new 'transitional' machines while children continue to die because the sizes are no different than riding what used to be called 'Adult ATV's.' New labeling and bigger machines will not protect children from death and injuries."

- "*Youth models: New recommendations for youth ATVs are based on fit. Whereas fit is important to active riding, the assumption that it is sufficient to safe handling is false. The industry questions research showing youth are poor at complex decision-making but offer no evidence to support the opposite. Moreover, the argument that maximum recommended speeds for youth vehicles should be based on consumer demand is frankly ridiculous. Consumer desires are NOT equivalent to what is safe and age-appropriate. Where are the studies that a pre-teen or even teen can safely operate an ATV at 30 mph? Falling off an ATV at that speed is equivalent to falling off a three-story building. Child development studies are used to argue against pre-teen drivers under any circumstances and for extensive training, supervision, and restrictions on teen drivers. Where is the evidence that these same youth can safely operate a similarly complex motorized vehicle without some restrictions?*

  Recommendations: The CPSC and manufacturers should provide support for multi-disciplinary teams that include child development experts. Studies should be performed to determine whether, and if so, under what circumstances youth can safely operate an ATV. Persons related to the industry should be prohibited from actively lobbying/advocating or supporting lobbying/advocating against age restrictions."

- "*The three elements of the thought experiment are (a) assume that the vehicle is safe for a particular age group, (b) based on research, determine the circumstances for which that is true, and (c) determine the ability to achieve those circumstances in the real world.*

  Assume an ATV is safe for a 6-11 year old child to ride/operate. Under what circumstances is that true?

  How achievable are those circumstances in the real world?
  Circumstances:
  Not safe under any circumstances to ride as a passenger on a single-person ATV.

  Not safe under any circumstances to operate an adult-sized vehicle. Requires proper sized vehicle and child wearing safety gear.

Highly controlled training environment (both parent and child) and good assessment tools for level of competency/decision-making.

Only ride on flat, obstacle-free, non-paved surfaces under parental supervision.

Parental supervision means being able to judge the risk of rollover at all times and being able to intervene effectively BEFORE or DURING a rollover.

This would minimally require highly limited speeds (2-4 mph) and a high level of parental alertness, good reflexes, and appropriate interventions at all times. [Don't grab handlebars and inadvertently turn the vehicle, as we had a patient whose grandfather did that and the child fell off and was injured. No riding beside on a vehicle for fear of an ATV-ATV collision or inability to intervene to prevent a rollover.]

A kill switch is of limited value, as it would not help once a rollover begins.

Achievability:

(1) How achievable is widespread training and child competency that predict injury prevention? Highly unlikely to be achievable

(2) How achievable is widespread parental supervisory competency that predicts injury prevention? Can a parent accurately assess the ongoing risk in order to determine when a rollover is about to occur, and then effectively intervene to stop it? Highly unlikely to be achievable

(3) Were all of these circumstances together required for injury prevention, how likely are they to be achieved in the real world? Negligible likelihood, in other words, close to if not impossible to achieve

Conclusion: The circumstances under which 6-11 year olds could operate an ATV safely and avoid injury are so unlikely to be achievable in the real world that we recommend prohibiting ATV use by this age group, halting sales and re-sales of vehicles for this and younger age groups, issuing effective warnings to parents with these vehicles, preventing carrying passengers, and preventing operation of larger vehicles by this age group. As difficult as these still are, they are the only possibly achievable ways to prevent deaths and injuries among this group.

A similar exercise with somewhat different criteria can be done for 12-15 year olds, although this is a somewhat arbitrary range that should be further refined. For some ages, one might argue that you could achieve relatively safe conditions if you restricted riding by this group to a well designed (no blind spots, no unprotected drop offs of any kind, etc.) and maintained OHV park, appropriate sized vehicle and safety gear, formal training of youth and parents on the park's trails and proof of competency, strictly enforced safety rules (including strict speed limits), and trained, continuous parental supervision. You would still be likely to have some injuries but the predicted severity should be considerably less. Any lesser-controlled conditions would predict an unacceptable risk of serious even fatal injury for this age group."

- "*These machines often weigh 500 pounds or more and are capable of speeds of 60MPH. Because of the composition of these machines as well as the terrain they are operated on, they are highly prone to role over and injure or kill riders. The American Academy of Pediatrics warn against any child under 16 years old being on ATVs. Children under 16 lack development of an area of the brain that causes impulse control and they often lack the size and frame of reference to ride an ATV safely.... Kids may think they are toys but as adults, we are charged with making the sound judgement call; these machines are not toys. As a mom who buried a child who had an amazingly bright future, I implore you to support strict regulations against children under 16 operating or riding on ATVs. One child crushed under the weight of an ATV is one too many."*

- "*Helmets and protective clothing are a necessity, so is sizing an ATV to the size of a child. Using age as a criteria for size/capability of an ATV will not work, because children vary so much in size and height by age 16. A children may be 5' or 6', the size and ability of the child, not the age of the child, is the critically important factor. ... ATV's are a safe and appropriate use for children when the children are wearing proper riding gear and helmets, are schooled in appropriate riding techniques, and have adult supervision for the younger children."*

- "*A child under the age of 12 does not need to be on anything larger the a 300/400 machine, if they are small they need to be on a 50/90 machine, and should not be left alone while riding ever!"*

- "*The size and power of these vehicles simply is not something someone under that age of 16 should be driving. They are difficult to handle, they can go at speeds of a car and so often it is the weight of these vehicles that kill or severely injure children. Kids don't drive cars or motorcycles, they should be driving these."*

- *"No child under the age of 16 should be allowed to ride an ATV and there must be a speed reduction device on them with a maximum sized engine."*

- *"No matter what is done to these machines, they will never be safe for young people to ride. They are great fun and very useful. But the fact that any child, of any size, can ride them, makes them deadly. There are alternatives such as motorcycles, that offer the same utility and by their very nature, require sufficient skill to be operated, avoid roll-over danger and reduce the risk of severe injury due to the weight of the machine. In short there is no way and no reason All-Terrain Vehicles should be allowed to be operated by children. Although many hours can be spent without incident, and I'm sure this is the experience of most parents, the risk of one wrong move out of millions is not worth it. I know."*

- "*ATVs are a method of getting today's children out from in front of the ubiquitous "screen" and outside, into the fresh air and sunshine, getting physical exercise. It needs to be done safely and with the proper training and supervision, just like most sports."*

- *"Legislation that restricted kids ATVs resulted in them riding machines that were too big and too powerful for their experience."*

- "*They aren't toys, they are machines, and there are reasons why we have laws preventing children from operating motor vehicles. No matter how safe and well-trained you think a kid is, they still have the minds and bravado of a child that believes nothing can happen to them, and they are operating machines that are far bigger and heavier than they are. It is irresponsible for government leaders to know the inherent dangers and not protect children from parents that ignore the statistics involving serious injury and death from ATV use among children. It shouldn't be about bowing to the pressure from ATV lobbyists and parents who don't want their weekend plans ruined because their 9 year old can't climb onto a 300-500 lb. machine, it should be about protecting our youth from people that are often too uninformed or irresponsible to do the right thing. If you didn't have age laws regarding motor vehicle use, there are some parents/guardians that would let their kids drive cars at 12 or 13. So why let them fly around the woods and sand dunes at high speeds?"*

- The comment included slides that:
    - referenced a 1986 report from the CPSC ATV task force that recommended considering a ban on ATVs intended for use by children under 12 years of age if the industry did not withdraw them from the market voluntarily

- questioned the rationale or evidence to support "*transitional*" ATVs and the speeds for "*any of the classes of youth model ATVs*."
- questioned if speed limiting devices can be defeated and if the standards are adequate to ensure that they work.
- stated: "*the new standard should include a provision that prohibits" selling "inappropriately sized ATVs."*

- The writers raised issues that the maximum speeds for youth ATVs "*are based on marketing information*" and "*did not consider whether a youth in the target age range could safely operate the vehicle at the maximum speed in real-life settings*." In another section specifically on youth ATVs, the writers: "*reiterate [their] concern about the lack of evidence supporting the size fit model*" and "*manufacturer-based speed limitations*." They go on to discuss that children do not have the "*physical abilities, critical thinking skills, and decision-making abilities needed to operate*" ATVs. They raised issues of parental supervision and the perception that parental supervision is needed only for children under 12, youth male risk-taking behavior, and said: "*children can easily be thrown from [ATVs] at high speeds*"; they indicated that carrying passengers should be "*strictly prohibited.*"

- A 75page paper titled, "*Quad Bike Safety: In search of a good theory," was submitted.* The paper focused on workplace injuries, as the majority of focus on ATVs (aka quad bikes) in Australia is in their workplace use.

  A statement at the beginning of the paper says: "*preventing children from starting quad bikes is a necessary but challenging requirement. It needs to be simple for an adult start but difficult for a child up to ? years of age."* This is provided as an answer to "*question 3,"* but the questions were not provided.

- The writer is "*concerned about the engine size approach to quad bikes versus young person's age.*" In addition, he states: "*it is absolutely within the design capabilities of ATV manufacturers for them to redesign adult ATVs to make operation by young children difficult/impossible (depending on age).*" Later, he specifically suggested that ATV manufacturers: "*make design changes to adult ATVs that would be effective in restricting the ability of very young people to operate these vehicles."*

  He also noted that often an incident occurs while the child is at a friend's house.

  In response to an abstract on seat length, the writer commented: "*This is precisely what I have recommended in my papers on ATV safety design – that is the redesign of ATVs to*

restrict the possibility of use by young children, and to restrict the possibility of carrying passengers."

In the third part of the writer's comment, the 2011 paper, the writer detailed the following suggested design changes to the vehicles:

- "*Redesign of the seat squad and its location to prevent most people significantly younger than 16 years of age from being able to ride these quad bikes;*
- *Redesign of the handlebar grips to make them larger to prevent most people significantly younger than 16 years of age from being able to ride these quad bikes; and redesign of the throttle and brake lever to achieve the same goal;"*

Data

- "*After Austin's death, we started looking for answers, anything that might help us make sense of what happened. Had this happened to anyone else, can anyone relate to what we were going through? We started researching statistics in our state, which was like finding a needle in a hay stack. Then we came across Concerned Families For ATV Safety. We soon found out that this was an everyday occurrence, not an isolated incident."*

- "*Compare pediatric ATV deaths to those caused to by the cords attached to blinds - the cords cause less than 12 deaths per year, but that was enough to get the industry to change. Pediatric ATV deaths are 4 times that. Even bicycle riding has fewer pediatric deaths despite a much larger number of bicycle riders."*

- "*. . . exposure information about how many ATVs there are, where they are, who is operating them and for how long remains an important issue with me, particularly as a critical component to more precisely defining risk groups and patterns."*

- "*Over the last two decades, there has been an exponential growth in ATV ridership across the US. Although children account for 15% of all riders, pediatric injury rates remain near 30 percent and the number of injuries has grown by 15 to 20 percent per year. ... In the Commonwealth of Massachusetts, we too witnessed a steady rise in A TV related pediatric injuries since 2002. In 2004 and 2005, 500 children less than 17 years of age sustained injuries, twenty five per cent of these injured children required surgery and about 1/3 required intensive care unit admissions. In this short period, approximately 70 young riders sustained a severe head injury, the cumulative acute care cost of which was estimated to be well over $10 million. Moreover, the cost to care for each one of these brain injured children over a lifetime was more then $4 million and the personal cost to each one of the families of*

these children, which can not be measured in dollars, cannot be understated and emphasizes the need for realistic, age limit legislation."

- *"The accident injury rate for Texas children on ATVs has declined in the past three years and I'd like to think that my program has bad something to do with that. The children I see are very receptive and open to the message I bring and in true 4-H tradition, many times they take that message back to their parents.*

  That is my next goal- to try and get the message of ATV safety awareness to the parents of these children. Most of them think of the ATV as strictly a farm/ranch implement and don't consider that these kids aren't riding them in the same manner that they are. It's a generational issue that needs addressing."

- A 75-page paper entitled "Quad Bike Safety: In search of a good theory," was submitted. The paper is focused on workplace injuries, as the majority of focus on ATVs (aka quad bikes) in Australia is in their workplace use.

  The assumption is made that "*quad bike injuries follow the same general pattern as other work injuries*." In studying tractor incidents, the writer found that in 100 percent of cases, behavioral, design, and environmental factors were always included as essential factors; however, the write states that identifying which of the essential factors was the cause "*can only be done by use of the feeling/valuing judgment function and cannot be done by the thinking function.***"** Continuing to look at tractor rollover incidents, 74.5 percent of incidents involved a physical feature (embankment, stump, rock, hollow), which "*made clear"* that improving lateral stability would "*only be marginally beneficial*." When looking at behavioral factors, 27.4 percent of cases involved visual information detection/situational awareness. The writer states that quad bikes operate in the same condition and do many of the same tasks as tractors, but an adequate sample of quad bike rollovers has not been collected.

- In the preamble to the writer's comments, the author notes the difference in use patterns between the United States and Australia; however, he states that the death rate is the same. There is also a discussion on the research of Heiden Associates, and the author states that the Heiden Associates research infers that noncompliant riders (*e.g*., no helmet, alcohol use, paved roads) "*deserved to die*." In addition, the author states: "*by further implication, there is nothing that the manufacturers or supplies can do about reducing the trauma . . . - it is in the hands of the users."*

The author also provided information he had found on risk, including the risk of death (1 in 10,000 years of operation), death while operating with a spray tank mounted (1 in 1,500 years of operation), seriously injured (1 in 1,000 years of operation), risk of being injured sufficiently to require medical (1 in 50 years of operation), risk of any sort of injury including minor injury not requiring medical attention (1 in 25 years of average operation(, and risk of a loss of control event (1 in 5−10 years of operation). He acknowledged: *"[t]here will be those who are very responsible and whose risks may be a 10th of those above; and there will be those who are very irresponsible, whose risks may be 5−10 times those above."*

- The writers state: "*roadway crashes account for over 60% of deaths and over 30% of serious injuries."* In a later section specifically discussing data, the writers ask for "*more frequent ATV exposure studies, working with safety advocates to better capture use patterns, user demographics, and injury patterns*." They also ask that CPSC "*require manufacturers to publically provide information on the number of ATVs sold, to whom (by gender and age), and where they are sold."*

Incident stories

- *"I will never forget the sight of my beautiful, 12 year old daughter, mangled, lifeless on the gurney of an emergency room table. As I tried to wipe the blood from her face and say my final goodbyes, the guilt, and extreme awareness of what the ATV had taken from me overwhelmed my mind...It is something her father and I will have to live with for the rest of our lives."*

- "*We know first hand the consequences of young children riding ATV's. On September 8, 2009, our 15 year old son was fatally injured in an ATV accident. Austin was a skilled rider with years of experience, but that didn't help him that Tuesday evening when he got on an ATV behind another boy without our knowledge or permission and never came home."*

- *"In 2008, my 12-year-old son was taken from this life as the result of an ATV accident. His friend's grandparent permitted him on the adult sized ATV without my permission and then left him unattended. He had never operated an ATV before in his life."*

- "*My 13 year old daughter was killed on an ATV that was owned by the parents of a 13 year old boy. I did not even know what an ATV was nor did I have any idea that a 13 year old boy's parents would allow their son to drive this adult sized ATV off his property and into other neighborhoods as if it were just a bicycle. There was no adult supervision that fateful night. I had never heard or seen any statistics regarding the dangers of ATV's and the amount of injuries and deaths that are happening to children driving these dangerous machines."*

- *"I live in plantersville, ms. my 22 month old grandson was allowed to ride on a atv with 3 other children ages 8,9,13 by their uncle and owner of the atv he allowed them to take it in the road were they were hit by a truck."*

- *"My grandson was killed on a ATV the day before Easter 2012. He was just 22 months old. His uncle let him ride with three of his cousins, which he thought was okay at the time. Because of our laws, or the lack thereof, he still believes the only mistake he made was letting them on the road. This accident could have happened anywhere!*

  My grandson died with no one to answer for it. The sheriff and attorney general told me there was nothing they could do because we have no laws preventing younger children from riding or driving an ATV. The driver was 13, with the others being ages 8 & 9 and then my 22 month old grandson. His name was William Scott.

  This has left a huge hole in our family with no closure. These laws must be changed and people should be AWARE that ATV's are DANGEROUS, not only to children but adults as well. I personally know of a 43 year old and a 17 year old, who died even after taking safety classes and wearing the appropriate riding gear. Both were in minor accidents. My brother also crushed his leg and pelvic bone from hitting a very small dip in the yard that was undetectable. He was in the hospital for 6 weeks."

- *"As a mother whose 12 year old son died on an ATV vehicle while he was riding it slowly in a friend's yard. He lost control of the vehicle, it went over an embankment, his helmet came off and the ATV flipped over and crushed his skull, killing him almost instantly."*

- *"Our daughter was allowed to drive a Honda 300 rancher (against our will) a very big and powerful ATV. Not only was my daughter allowed to ride the 4 wheeler her friend jumped on the back who is a very robust girl. My daughter somehow veered off to the left in the edge of a cotton field and hit a tree with the fat girl crushing her against the tree. Our just turned 15 year old daughter was killed on an ATV."*

- *"My name is Larry E. Miller from a small town in South Georgia called Hahira (Ha-Hi-Ra). While you and the audience are attending this summit almost to the date, my wife and I got a very frightening phone call around 3:15 PM on a Sunday October 24, 2010 that our just turned 15 year old daughter had been in an ATV accident for us to come quick. We arrived at the scene of the accident only 2 miles from our house where our daughter was spending he weekend with a friend. The parents had been notified NOT to let our daughter on a 4*

wheeler. Not only was our daughter on a 4 wheeler but she was driving with her very robust friend making the front end very light and un-controllable. They were riding on the egde of a cottonfield and for some reason started veering off to the left and hit a tree. My daughters body took the force of the hit while the passenger crushed my daughter even that much more. Upon arrival, I jumped out of the truck and started CPR as the EMT advised me to, this was to no avail, our daughter was crushed and killed right there on the spot. ... Yes my wife and I would love to have the parents put away for ever for homicide.

Somebody somewhere has to be held accountable, I use to own a Polaris 300 and my children (I have 3) were NEVER EVER allowed to ride it. Did I mention the fact that our daughter was killed on one of her brothers birthday. Yes, live with all the pain that we live with every single second of every single day. I would love to take that 4 wheeler and every other one and stick them so far where the sun dont shine on the manufactorers and the government for not having stronger legislation with this matter. It is my hope that this letter will be presented to yall and realize you are not alone in this fight. I am so sorry to anyone of you who has suffered the very same thing. Thank You."

- *"My son died on an Arctic Cat 250 cc four wheeler. He was riding home from a neighbors house over gentle terrain and dirt roads. His mother and I think he made a sharp turn to avoid a stick in his path. The vehicle rolled over and pinned him to the ground. With it's weight in the small of his back, he could not breathe and suffocated. He was wearing full riding gear, boots, helmet and chess protector and he was an experienced and trained rider. He was 10 years old."*

- *"My Grandson Max of 4 years was on a neighbors child size ATV and it was not running at the time but a 2 year old knew it well and started it and put in full throttle. It threw the 2 year old and my Grandson Max. The 2 year old had a slight concussion, It threw Our Grandson then landed on his head he died of head trauma.*

  The ATV got away so quickly the parents couldn't catch it."

- *"I have two children of my own, both of which grew up riding ATV s. Neither of whom were ever seriously injured while riding an ATV. My son, at age 16, would actually go on vacation with us- and enjoy himself!"*

- *"Before seeing a 6 year old flip an ATV into a ditch and sustain injuries, and after having a neighbor's 11 year old die after running into a tree, I lost my own 10 year old nephew when one flipped on top of him."*

Parental responsibility and supervision

- *"As a mother who has lost a 12 year old daughter to an ATV accident, I have seen the results of what an ATV under adult supervision can do. Until laws are passed to penalize parents for allowing children under the age of sixteen to ride or operate ATVs, lives will be lost or left severly injured. For some, death would be a kinder outcome."*

- *"Taking care of injured children, I find there are two types of parents of children injured by ATV's - those that had no idea their child was out riding one and those who regret their decision to let their children ride."*

- "*We also encourage both parent and child education in the safe use of an ATV, and stress the need for adult supervision, particularly with younger children."*

- *"There was no discussion of a key element to preventing accidents: parental responsibility. Extensive safety information is provided during the purchase process, in the vehicle manual, on the vehicle, in state regulation booklets, in safety training classes and a wealth of educational materials provided by local clubs, and regional and national organizations. As with all consumer products, parents are responsible for the safety of their children when using ATVs."*

- *"Parents should make the call on if their child is ready to ride atvs - but it is the parents responsbility to teach their child the correct way to ride and to wear saftey gear, parents should set an example and wear the safety gear themselves too. This is something the goverment does not need to control or get involved with. ... Why aren't parents supervising their kids while riding/riding with them and teaching them? Do we need the goverment to do everything for us? i dont think so - stop being so lazy parents and start watching and teaching your child. they might be alot better off if you do..."*

- *"Our daughter was crushed to death because of the lack of supervision and the enormous size and speed of the ATV."*

- *"Why is there no laws to hold parents accountable for their actions?"*

Policy

- "*CPSC should not sanction the manufacture or sale of ATVs designed for children or teenagers under the age of 16.*"

- "*We are urging CPSC to finally take a strong stance when it comes to holding the manufactures accountable for the Safety of all ATV's.*"
- "*While we recognize that all things involving money are ultimately political issues, we would argue that consumer protection when it involves saving lives, health, and billions of dollars should not fall victim to political barriers or to industry reluctance. The industry's worldview that this is just a user failure for which little beyond training can be done is not evidence-based. Many more injury prevention approaches are needed and should be supported by regulatory bodies and public groups.*

  "*Final question:*

  "*Would the CPSC be open to improvements in the ATV fatality data collection form and process? ATV injury prevention experts would love to help with comprehensive crash and injury analysis for fatal crashes similar to the NIOSH program called FACE*"
- "*However, we also recognize that safe and sane use of All Terrain Vehicles, particularly by children, should be a high priority for parents, retailers and the Consumer Product Safety Commission. Common sense rules and regulations must be brought into consideration*."
- "*It is imperative that subject matter experts, enthusiasts, policy makers and manufactures unite to discuss pertinent issues in the area of ATV safety. These are the people who need to influence policy related to ATVs. We fail when we allow people with no interest, background or expertise in a subject to determine rules and laws regarding safety. Children's ATVs were banned because they have lead batteries. This is a prime example of blindly following policy. ATVs are inherently dangerous, however continuous innovations and awareness to these hazards are important. The key is awareness and education.*"
- Four-page comment that concluded:

  "*Specifically, we call on the CPSC to promote and implement changes that:*
  - *Place responsibility on the industry to provide evidence for the safety of their vehicles;*
  - *Implement consumer protection strategies based on injury prevention approaches;*
  - *Support a re-evaluation of Voluntary Action Plans;*
  - *Re-design youth model ATVs based on human factors engineering and child development principles;*
  - *Promote engineering design changes for all ATVs to increase safety;*
  - *Facilitate targeted nation-wide educational efforts to reduce ATV use on the roadway;*
  - *Support strong and well-enforced state and Federal policies promoting safe use of ATVs; and*
  - *Provide more current and salient ATV exposure data to inform better risk estimates.*"

Other key policy-related points from the comment include:

The suggestion that CPSC "*evaluate the effectiveness*" of the Voluntary Action Plans because "*the continuing high … costs of ATV-related deaths and injuries strongly suggest that these plans are wholly insufficient to protect consumers.*"

The statement that "*CPSC should require implementation of industry standards based on engineering safety results, as soon as the safety and consumer protection communities reach consensus on these standards.*"

The statement that "*CPSC should require ATV manufacturer [sic] and other ATV industry stakeholders to participate in a national public awareness campaign*" regarding ATV use on public roads and ask that consumer protection groups and the injury prevention community be involved "*to help in the design, implementation, and assessment*" of the campaign.

- A 50-page comment generally not in support of further regulations was submitted that concluded:

  "CPSC should accordingly recognize that rather than attempting to re-write or add to provisions of the mandatory standard or action plans without any empirical basis, the most promising strategy for further enhancing A TV safety is:

  1) *enforcing the revised ANSI/SVIA 1-2010 standard;*
  2) *supporting comprehensive state regulation of ATV use;*
  3) *ensuring the provision of free hands-on training and the monitoring and enforcement of dealer age recommendation compliance under the approved Action Plans; and*
  4) *promoting greater parental supervision of young riders and compliance by consumers with the ATV age recommendations and safety warnings."*

- The commenters state that the "basic thrust" of the NPR was to "*seek to establish mandatory standards and requirements for ATVs that were largely similar to the ANSI/SVIA voluntary standard and the elements of the ATV Companies Action Plans.*" They go on to state that "*Congress essentially accomplished this*" with the passage of CPSIA; therefore, "*there is no basis for CPSC to determine that ATVs that comply with the mandatory standard and are covered by approved action plans . . . present an unreasonable risk of injury*." Later, they state *"CPSC has provided no explanation, much less any justification, as to why this level of estimated injury risk, which is substantially less than it was when the Commission decided against taking further regulatory action during the regime of the Consent Decrees and again at the time of their expiration, (and is continuing consistently to decline further each year) could now be deemed to be unreasonable."*

- The commenters continue to argue against a finding of unreasonable risk for the following reasons:

- Safety benefits of elements in the NPR that go beyond the ANSI/SVIA standard and action places are "*entirely speculative*";
- "*any significant reduction in ATV injuries would come from ensuring that key elements of the Action Plans (including compliance with the ANSI/SVIA standard) were extended to new entrants*";
- The unreasonable risk proposed in the NPR was based on "*new entrants*" not meeting the ANSI/SVIA standard and Action Plans and is "*undeniably speculative*" with regard to ATVs that comply;
- No data were provided to show that the additional requirements would provide a "*quantifiable safety benefit*";
- The NPR did not contain "any citations to evidence of their actual costs";
- The "unreasonable risk 'finding'" was based "*only to the total number of reported ATV -related deaths since 1982, as well as to the reported number of deaths in 2003 and the number of estimated ATV injuries in 2004*"; and "*mere recitation of aggregate numbers of estimated A TV-related deaths and injuries cannot constitute the showing of unreasonable risk, particularly when analyses of the data show that these deaths and injuries are due largely to clearly warned-against behaviors and that the risk of injury on four-wheel ATV s has actually declined by a statistically significant 46 percent over the last ten years*";
- "*CPSC's own published data clearly show that injury and fatality risk have declined substantially since previous Commission decisions that further regulatory action regarding ATV s was not appropriate*"; and
- *"[T]he NPR explicitly acknowledged that CPSC was relying on staff opinion and speculation, rather than actual data or evidence, to support these proposed additional requirements."*

Public awareness, information, and education

- "*I just want to do something that may prevent it from happening to anyone else. It is the only thing that we as parents who have lost our children to ATVs can do. For you see, for us, it is too late to be educated with the facts and stastistics."*

- "*We have been in contact with many different families who have gone through similar tragedies. Although each case differs somewhat, the one constant similarity I noted was not one of us ever thought our children would die as a result of riding an ATV! My question to you is when is enough, enough? What can be done differently in light of prevention? Should parents be able to make informed decisions regarding ATV use in children?*

  How can you make an informed decision when you don't have ALL the information to do So? Is it fair to tell parents that if they follow the industries 'Golden Rules' that their kids will be safe?"

- *"In the case of public awareness and public policy, greater transparency and a level playing field are needed. Extensive marketing and other efforts designed to increase ATV ridership are widespread. On the other hand, few resources are available to promote public awareness of the human and financial cost of ATV use. Help finding needed resources is of critical importance.*

  Consumer education on risk: Knowledge is the cornerstone of safety but alone is fundamentally insufficient to change behavior. Industry representatives repeatedly assert that their training opportunities and warning labels promote understanding of risk and should satisfy their responsibilities to consumer protection. These assertions are based on consumers stating that they understand the risk. However, human factors research indicates that humans are highly limited in their ability to assess risk, particularly young males (80-90% of ATV victims). Research also shows that warning labels are highly insufficient as an injury prevention strategy.

  Recommendations: More educational materials should use appropriate language. The term 'accident' has been shown to activate thoughts that something is unpredictable and unavoidable. It should be avoided and the term 'crash' should be used instead. Although 'safety' is a valuable term in some contexts, consumers need to hear and understand the terms 'risk' and 'death and injury prevention.' No claims that consumers understand the risk should be accepted without supporting evidence and more studies should be performed to identify interventions that truly do improve risk assessment and decision-making.

  Warnings and educational materials: Marketing but not injury prevention materials are reaching ATV buyers and users. More effective warning materials and messages need to be developed and assessed. These materials need to be made available at as many contact points as possible, including dealerships, doctors' offices, schools, DMV offices, and user targeted media.

  Recommendations: More warning materials proven effective should be developed and freely available. Strategies to educate people on ATV laws and injury prevention should be presented using multiple media in places users are likely to be. Injury prevention experts should play an integral role in designing, implementing, and assessing these materials."

- "*Our state's two ATV manufacturers, Polaris Industries and Arctic Cat, are very involved in promoting safety education to the general public. Arctic Cat produced an ATV Safety video used in classes. Polaris partnered with Children's Hospital to create advertising promoting key safety messages, including billboards with these headlines: 'Kids should ride kid-sized ATVs' and 'Gear up for a safer ride'. Visuals attached. Coalition of Minnesota ATV clubs and organizations teamed up with the MN DNR and NOHVCC to create a successful education program, posting ATV-safety related posters with age appropriate messages in 23*

elementary, middle and high schools. That program is now expanding across the state and the country."

- "*I will not be able to attend the summit but would like to submit testimony to the fact that I believe the ATV industry is not doing enough to warn parents about the dangers ATV's pose to children . . .. I absolutely and whole heartedly believe that if there were more PUBLIC warnings about the dangers, and not just a warning sticker on the ATV, the amount of deaths would be drastically reduced. Just as there are TV commercials and ads about the dangers of drinking while driving, texting while driving, cigarettes, guns, etc, there should be TV commercials and more public announcements about the dangers of ATV's so parents are more informed before that make the decision to buy one. In addition, parents who do not know anything about ATV's would be better informed and able to warn thier child about the dangers, just like they can do about guns, cigarettes, drinking and driving, texting and driving, etc. I could only find this information AFTER my child died, through the internet.*

  "The ATV Industry needs to be held accountable for marketing and selling these dangerous machines for children's use."

- *"There must be changes made to these machines so make them safer. So many have been injured and killed already. I would like to call for my leaders to stand up for us and make sure these ATV's are made to adhere to Stricter Safety Standards. And I would like to see more Safety Advertising done in the form of TV and radio ad's etc.. More people need to understand the Dangers of ATV's!"*

- *"I work with a local Atv club and in the spring we go to the local schools and teach 6/7 graders about Atv use and safety. We show them the difference between adult size and kids size atvs we stress the importance of wearing a helmet and how to properly ride an Atv. This year we will be providing helmets to kids who don't have helmets or can't afford them. We also do a hands on training program on the weekends in the spring."*

- "*Despite this epidemic rise in pediatric accidents, the A TV industry has maintained and continues to espouse the longstanding position that adult supervision, helmets, and training classes are the only way to limit youth injuries. Unfortunately, as we have seen, these recommendations have made no substantive impact on reducing pediatric injuries. In fact, ATV industry representatives will attest that even today, up to 90% of all ATV fatalities are the result of warned-against behavior. Despite this clear disconnect, the industry continues to oppose any law that would limit the age of a rider despite growing evidence that such laws effectively prevent injury."*

- *"The public should be educated on the safety in general not just when purchasing one. The ATV companies should air commercials of the horror stories we as parents have to live with everyday."*

- *" If you knock on someone's door today and asked them if they knew the safety rules for an atv, What do you think their answer would be? You do not hand the keys to your 9 year old child to drive the truck alone, because we have laws against it. Most people have very little knowledge when it comes to atv's because they are advertised as* ***family fun*** *for kids of all ages. You don't see the dangers of them until it's too late. ... These are children who have lost their lives way too young because someone did not educate us properly about the safety, or lack thereof, for an ATV."*

- *"Please there needs to be more advertising on the dangers of child size ATV's. ... I don't consider this a toy. People need to be aware of these things yet they consider them as harmless toys, which they are in fact deadly. It needs to be stressed that NO One under the age of 16 should be on these things. The only way is to get people more aware of the dangers of them.That is through advertising saying it has caused many injuries and Deaths. Here is Our Max who lost his life on a Childs Toy."*

- *"Most states in the US have a good amount of public lands on which to ride ATVs, mine doesn't. Texas lands are 97% privately owned. The need for public education on 'Keeping Families Safe on ATVs' is imperative, because while our state has more ATVs than any other, most families are riding them on private land.*

  My program started 3 years ago and has had a wonderful success rate for getting an ATV safety awareness message to the children ofour state. Our biggest issues are children who; ride without a helmet, ride with more than one person on the A TV and ride an A TV than is too large for their age/size. Barring taking the RC, I have found that an ATV Safety Awareness (SA) message is the next best thing. I utilize the ASI 'Golden Rules', safety videos and a Tread Lightly! message in a PPT presentation. I distribute posters, stickers, NOHVCC coloring/activity books and their Adventure Trail interactive CD game.

  In the past two years, I have been able to take this message to over 10,000 children, in more than 33 counties in my state. Working mainly with the 4-H framework of County Extension Agents, I have presented at Progressive Agriculture Safety Days, health fairs, school assemblies and at 4-H clubs and OHV clubs in general. Generally speaking, I reach anywhere from 15 to 375 people at a time, ages 8 and up.

  In order to spread the message even further, I am currently partnering with my Texas Dept of State Health Services, Scott and White Trauma Centers, Texas Parks and Wildlife Dept. Hunters Safety Educators to have many more adult volunteers take my ATV Safety Awareness Training (SAT), a 'train the trainers' course. I have developed a curriculum for teaching these trainers, which includes all the materials needed to present, as well as pre

and post test questions to make sure that the knowledge need is being learned and retained. We are also working on identifying the counties which have the highest accident injury rates and targeting them with PSA's in the radio and TV markets as well as having SATs in those areas.

My program is funded by the Texas Parks and Wildlife Dept., Yamaha Motor Corporation and Tucker Rocky Distributors. The administration is completed by Texas 4-H Foundation and my media materials are supplied by ASI, TL! and NOHVCC. I do print some of my own brochures, posters and my SAT curriculum booklets. My youth model ATV s have been supplied by Polaris Industries and El Campo Cycle Sales and my adult model ATV s by El Campo and Alamo Cycleplex. I also utilize ATV s during my SA presentations for static demonstration, many of which are supplied by local dealerships, most of whieh are members of the Texas Motorcycle Dealers Association. ... When the ATV industry partners with youth groups, recreational agencies, local dealerships, health agencies and hospitals, teachers and school districts as we have - even in my 'private lands' state – we can make a difference. I believe that if each state had an ATV Safety/OHV Education Program, one specifically designed to bring the nationally recognized safety rules to the public, that fewer children would be injured in ATV accidents. I would like to ask that you continue allow the ATV industry to assist and advise you and to work with you to develop methods of education and training to help keep ATV s as safe as possible for families."

- In the section titled, "*Consumer Protection Based upon Injury Prevention Principles*," the writers state that the "*ATV industry stakeholders currently support only educational approaches and this support is generally limited."* As an example, they state that the ATV industry "*supports safety warnings"* as education, but "*safety warnings have been demonstrated to be among the least effective consumer protection tools.*"

- The slides stated: "*the most recent death and injury data from CPSC should be conspicuously provides to consumers in as many places and methods that can increase a consumer's knowledge about the risks they are assuming by operating or allowing their child to operate an ATV*." In addition, the slides stated the position that advertising of ATVs often "*contradicts messages in warning labels and manuals*."

  The following recommendations were made for additions to the warning labels:

  1. "*The general warning labels should include a statement about the inappropriateness and danger to children under 16 riding ATVs that are too large, too fast and too powerful for them.*"

2. "*The language of the warning labels for all ATVs should include the following statement, 'WARNING: Risk of death. ATV's intended for adults should not be used by children*."

- The writer briefly mentions an Australian program to provide posters and handouts to purchasers of ATVs and follow-up surveys done by "*the writer and others"* that found no posters and "*rarely found handouts."* The writer also questioned the effectiveness of awareness if "*engineering changes aren't also introduced."*

  In the third part of the writer's comment, the 2011 paper, the writer details "[*t]he cynicism implied in operator manuals versus quad bike design,"* and notes the differences between the owner's manual, warnings, and use patterns.

State legislation

- *"Please restrict the use of ATVs to individuals who hold a valid driver's license under the laws of their state of residence."*

- *"Many of these rules already exist in California, we suggest a thorough review of existing rules and regulations before any new rules and regulations are considered."*

- "*In mississippi there are no laws preventing this only suggestions there was no charges filed against anyone by the law enforcement or child protective service. the reason they were not charged i was given is that there are no laws here to protect our children.*"

- *"In 2006, a law banning ATV use by children younger than 16 was passed in Quebec. At the same time, a law was enacted in Nova Scotia which limited age of ridership to 14 and older. In the following years, pediatric injuries and deaths decreased by 50 percent."*

- *"I was very involved and active in working on SB101 here in Oregon. We were seeing an increase in child fatalities and were averaging 6-8 per year with the expectation of having 11-12 the next year. Since passage we have had no child fatalities. The law requires Supervision , training for all and hands on for youth, and rider -fit. This has been a successful program and as I understand it a blueprint for other states. It keeps families riding together and our kids safe. It is clearly working here and it would seem a no-brainer to consider it nationwide. Thank you"*

- *"In opposition to another commenter- Please DO NOT restrict the use of ATVs to individuals who hold a valid driver's license under the laws of their state of residence.*

The FEDERAL government should have nothing to do with this. The STATE governments should decide independently what the minimum legal age is for operating an ATV."

- "*Off road vehicles are and have been one of the most enjoyable ways to visit our Great Outdoors. Safety is and should be one of the most important aspects of riding at any age. Here in Oregon we have a 'Rider Fit' law for ATV that has been exceptional law."*

- "*We do have excellent laws for ATV use on public lands, although there are no laws which can impose fines or penalties for the improper use of ATV s or the lack of the most basic of safety initiatives, such as wearing safety gear, on private lands."*

- In response to an abstract in the state legislation panel, the writer stated "*the presence of penalties and enforcement can encourage much higher use of helmets. Hence, the writer would support any program that took this approach as a means of ensuring much higher helmet wearing rates. However, I recognize that there is a difficulty once ATVs/quad bikes are operated off-road*." In response to another abstract, he stated "*This research supports my previous comments – that is that training, promotion of PPE* [personal protective equipment]*, and state laws will have little impact on ATV/quad bike trauma. However, as I've noted previously penalties, combined with enforcement may work towards better outcomes."*

- The writers state that the industry "*opposes some state ATV laws, particularly those related to age restrictions.*" In addition, the writers feel that "*CPSC should continue to encourage strong enforcement and careful evaluation of state policies, and should recommend the ATV safety polices be implemented and enforced on Federal lands."*

Training

- *"Mixed messaging: In a related context, current public messaging is highly confusing. The message an ATV is not a toy is completely lost in advertisements and training videos showing 6 year olds on an ATV. What other than a toy would a 6-year-old ride? Similarly, comparing ATVs to bicycles is no more appropriate than comparing bicycles to automobiles. Catching your child falling off a bike going 2-3 mph is hard enough. How do you catch them rolling over a vehicle going 5-10 mph or more? Another mixed message involves advertisements promoting vehicle speed and power and the message to ride responsibly.*

- *Recommendations: Industry-supported training needs to include messages that truly address risk. Public messages on the dangers of using ATVs and ways to prevent injury should be significantly more visible and widespread."*

- *"No training class or protective gear can substitute for following the AAP recommendation to keep children under 16 off these machines."*

- *"Minnesota could serve as a model of ATV safety training and educational to families with ATVs. Over 900 MN DNR-certified ATV Safety Training Instructors train thousands of youths ages 12 to 15 each year. This successful program has resulted in a dramatic decrease in youth-related accidents. Over 200 DNR-trained Trail Ambassadors ride the trails each weekend, monitoring them, keeping them safe, and providing educational materials to riders."*

- *"I do not have the answer, but I believe more needs to be done to promote and entice the consumer to sign up and participate in the already existing hands on ATV safety training that already exists in this country. I work part- time as a public instructor for the ATV Safety Institute and believe it to be one of the best rounded, hands on training programs out there. The problem exists with getting knowledge of the program and/ or enough incentive for them to show up and participate in a course. I have been told it is law for dealers to explain free training to consumers, but I am still told by many that safety training was not discussed or was downplayed by the dealer at the time of sale. Another problem exists with the incentive program. Most manufacturers offer an incentive up to $100 for completing the course but it is still not enough to entice some. I can personally account for ATV consumers that have seen the benefit of hands on training. Before training they were cautious riders, but didn't have any confidence in riding. After training it made them more confident about their riding ability, which I think helped make them an even safer rider. Indiana has no regulation requiring riders to complete safety training to ride in a riding area. I know that other states do and perhaps that would be one answer to an incentive but could possibly be to extreme and detour some people from riding/owning ATV's."*

- *"As a state licensed, ASI Safety RiderCourse (RC) instructor for the past ten years, I believe that there is no better way to teach a youngster to be safe on an A TV than a RC. The ASI is trying everything than can to get people to take the RC, especially children, and their cost reduction for children is a big incentive. Through my program I have been able to train many kids, the 4-Hers at no cost, thanks to ASI."*

- *"I strongly encourage early involvement of kids in ATV programs. Having suitable sized and powered vehicles for their use improves safety. ... ATV programs should recognize and foster family participation. Classes in basic and advanced riding skills should be readily available at little or no cost to attract as many participants as possible."*

- *"The important thing to note is that the risk of injury is low compared to the years of operation. This has implications for safety initiatives. With training. It is almost impossible to train people in a way that will be effective in preventing the negative outcomes of such low-frequency events. For example training riders in techniques likely to reduce injury in a loss of control event are unlikely to be remembered and put into practice 5 to 10 years after training unless there is constant retraining."*

  The author also notes that friends of children residing on the property where the ATV is present often join in ATV activities without any training.

  Regarding ATV manuals and labeling, the writer *"knows"* that these have *"little impact on the operation of machinery, including ATV/quad bikes."* Several examples were given to support this statement.

  In his response to the various abstracts submitted to for the Summit, the writer notes, *"The question that remains, however, is to what degree the behavior of youth riders is affected by the course. I know from example that a lot of the research in the road safety education and training area aims to determine awareness of road safety messages and/or key points associated with training. However research into the effectiveness of training shows no net benefit to society at large, even where the ability to recall road safety messages is high,"* and asked *"to what degree is the behavior of riders affected by the program[s]?"*

- The slides recommended that the standard *"require free hands-on training for operators and all riders of ATVs,"* that the training be *"geographically accessible to all ATV operators and riders,"* and that the standard *"set for the requirements for the training class, taking into account riders' different age levels and abilities and ensuring that the training is substantive and improves ATV operator and rider knowledge about safe ATV operation."*

- The writers state that *"the impact of industry-supported training is limited,"* and state that information about the industry-sponsored training is not shared with the public. They also state that the training materials have an *"inappropriately high reading level*." They ask for *"additional study of the impact of education efforts… to ensure that the messages employed adequately convey risk, change behavior, and reach the target audience effectively."*

Vehicle characteristics

Subtopic: Brakes

- Slides stated that the 2007 standard "*weakened existing brake performance standards and the 2010 standard does not fix that problem*," and urged "the mandatory standard to improve brake performance and reduce the risk for serious injury and death that failed brakes create."

- "*Section 1410.7 of the proposal would require the service brake performance test to be conducted with the vehicle carrying its full load capacity of weight. The ANSI/SVIA standard specifies that the service brake performance test be conducted with the full load capacity or a maximum of215lbs. of load, whichever is lower. . . Testing on a high frictional surface with a maximum load above 215 lbs. on an ATV could be hazardous to the test operator. Also, a brake design that would give an appropriate test result for an A TV with a maximum load above 215 lbs. on a paved surface would be inappropriate for normal braking with a light load on an off-road surface.. . . There is no data in the record to show that requiring 200 stops as part of the test procedure is necessary to address an unreasonable risk of injury from the service brakes.. . .In addition, Section 1410.7(b)(5)(i)-(ii) ofthe proposed rule would require that hand lever brake actuation force not be more than 133 N (30 lbf) and that foot pedal brake actuation force not be more than 222 N (50 lbf). The preamble incorrectly stated that these proposed requirements were consistent with the ANSI/SVIA -1-2001 standard and are patterned after FMVSS 122. In fact, these actuation forces are specified in the ANSI/SVIA-1-200 1 standard for youth model A TV s. The actuation forces for all ATV s other than youth models in the ANSIISVIA standard are not more than 245 N (55 lbf) and not more than 400 N (90 lbf), respectively, for hand lever and foot pedal actuation. These are the same values required in FMVSS 122 for motorcycle brake systems, and should be maintained."*

Subtopic: General Design

- The writers content that the "*industry is highly resistant to engineering approaches.*" They also "*urge CPSC to require ATV manufactures to provide engineering solutions to increase product safety.*" They ask that this is done with both industry and non-industry research and analysis and ask that CPSC "*evaluate ATV manufacturer provided solutions.*" Specifically, they state the engineering solutions should include:
    - "*seat design that prohibits multiple riders and makes age-inappropriate use less likely,*"
    - A ban on "*aftermarket devices such as 'storage boxes' which also facilitate carrying passengers,*"
    - "*design changes to reduce over-steering and under-steering and the related risk of rollover,*"
    - "*increased stability and changes to center of gravity to limit the risk of rollover and flipping,*"
    - "*installation of alcohol ignition interlocks,*"
    - "*identifying safe speed limits for adult and youth ATVs,*" based on "*demonstration that the target population can operate the vehicle safety at that speed under real-life conditions."*

- "*The message is for those concerned about ATV safety, is that the manufacturers need to be pressured to take a different approach to the design of ATV/quad bikes. Arguably they are in the same position at car manufacturers were prior to Ralph Nader releasing his book*

'Unsafe at any speed.' As we all know 45 years later there is not one vehicle manufacturer who does not give high priority to designing in high levels of safety with their products."

- In the third part of one comment, a 2011 paper, the writer details design factors that "*can lead to relatively high levels of trauma,*" listed below:
    1. *"Quad bikes have low levels of stability in respect of rollover and tipover because:*
        a. *They have tyres with low side wall strength, operated at low pressure,*
        b. *They have soft suspensions*
        c. *The centre of mass of the rider and other loads is much higher than the centre of mass of the quad bike;*
        d. *As a result of the three factors above, quad bike's lean is much greater than for cars, trucks or tractors, a fact that significantly reduces rollover stability; and*
        e. *Quad bike's can operate on slopes of up 60% or more which dramatically increases the chances of rollover or tipover*
    2. *The ability of quad bikes to negotiate steep slopes is limited by:*
        a. *Friction; and/or*
        b. *The inherent stability of the quad bike, it's rider and its load when travelling up a slope, and/or*
        c. *The inherent stability of the quad bike, its rider and its load when travelling across a slope.*
    3. *The risks of trauma with quad bikes increase with speed due to:*
        a. *Quad bike responses to ruts and other surface irregularities;*
        b. *Lateral acceleration (side forces) on quad bikes increase with the speed ^2 in a turn; and*
        c. *The chance of trauma rapidly increases rapidly with impact speeds."*

  Also in the third part of this writer's comment, a 2011 paper, the writer details the following suggested design changes to the vehicles:
    - "*Redesign of the area of the foot wells to minimise the likelihood of crush injury, lost circulation to limbs leading to death, asphyxiation or drowning in a 90 degree rollover; and*
    - *Fitting dual axis accelerometer based slope warning devices."*

Subtopic: Lighting

- *"headlights that automatically turn on when the engine is started."*

- *"CPSC has not presented any data demonstrating that the absence of a stop lamp presents an unreasonable risk of rear end collisions. Nor has the Commission pointed to any data confirming or even addressing- the safety benefits of requiring a brake light on all ATV s that are used in an off-road environment."*

- "*The ANSI/SVIA standard makes the provision of a brake actuated stop lamp optional on youth (as well as adult) model ATV s. CPSC has presented no data that indicates a safety risk from the absence of a stop lamp on an ATV used in an off-road environment or verifies any safety benefits from requiring stop lamps on youth ATV s. In addition, the electrical systems of some youth models are not adequate to accommodate such a stop lamp. … The ANSIISVIA standard likewise makes the provision of a head lamp or forward facing day-time running lights on a youth A TV optional. Head lamps and day-time running lights can be beneficial by providing conspicuity for the vehicle under certain riding conditions, such as heavy brush, dusty or shaded trials and similar low-light conditions during the day. … CPSC has presented no data or empirical evidence to show that either youth ATV s not equipped with a stop lamp or youth ATVs equipped with a projecting head lamp or forward facing day-time running lights present an unreasonable risk of injury.*"

Subtopic: Rollover Protection/Crush Prevention

- One commenter submitted summary report entitled "ATV Rollover, Operator Response, and Determinates of Injury: Implications for Crush Protection Devices." And overview of this work was presented at the ATV Safety Summit during the session on roll-over protection. The report detailed several non-injury roll-over scenarios taken from videos of ATV rollovers posted on the video hosting site YouTube™. This method was selected because injury and fatality incidents investigations do not include non-injury rollover incidents nor do they contain information regarding ATV-rider dynamics. The report details ways in which a crush protection device (CPD), specifically the QuadBar™ CPD, may interfere with ATV drivers who use an active dismount as a method of avoiding the vehicle in a rollover event.

- 75-page paper entitled "Quad Bike Safety: In search of a good theory." The paper is focused on workplace injuries, as the majority of focus on ATVs (aka quad bikes) in Australia is in their workplace use.

  As an answer to an unstated "Question 2," the author states:

  "The introduction of Crush Protection Devices is the most important single initiative that could be taken.
  Manufacturers have invested heavily in opposing such action and the negativity they have developed against such fitment needs to be counteracted.
  The evidence they have used over many years to support their opposition is conceptually and technically unsound.
  The evidence against their advocacy of training as a control measure is presented.
    - *Retrospective fitment of CPDs is required.*
    - *Footwell should also not allow the legs to be run over by the wheels."*

The author details an October 2010 meeting of the Technical Engineering Group in Sydney where the validation of the computer model used by Dynamic Research Inc (DRI) to simulate ATV incidents was called into question, arguing that 93.5% of its predictions were false. Later in the paper, the author contents that "DRI's 'research' is invalid, does not stand up to scrutiny, and is without merit. No decisions in relations to quad bike safety should be influences by DRI's work." This statement is followed by approximately 20 pages analyzing the simulations and results.

In another section of the paper, there is a discussion on the role of the CPD – "to increase the height and area, i.e. volume, of the protective space," so that the quad bike does not impact the person. Part of this is based on the theory that the rider "reactively cling[s] to the machine unless the handlebar is forced from their grip," and that rider separation during a rollover event happens "comparatively rarely." The writer states that the CPD "will limit some rollovers to 90 degrees and provide protected space under the quad bike at a 180 degree roll."

- One comment recommended equipping all ATVs with seat belts and roll cages, and that standard be created for seat belt integrity and dimensions and minimum forces/weigh withstanding requirements for roll cages.

- In the preamble to the comment, the writer states his "*detail analysis of the DRI [Dynamic Research Inc] research*" and found it *"fails absolutely to comply with the requirements for proper computer simulation based research."* His primary argument for this statement is that it is based on ISO 13232, but "*DRI 'conveniently' ignores the scope.*"

  In the writer's response to each published abstract for the ATV Safety Summit, he states "*The Quad bar Crush protection device… is the best design device currently commercially available anywhere in the world,*" and reports "*injury history to date with the equivalent of 2607 quad bike years of quad bar fitment is such as to support an initial assertion that this particular design has the potential to dramatically reduce deaths and serious injuries.*"

  He also specifically suggested ATV manufacturers "*redesigned ATVs to incorporate a crush protection device mounted at the rear of the vehicle that would be effective in preventing deaths and serious injuries from rollovers where these result in asphyxiation or crush injuries.*"

  In response to an abstract on rollover protection devices, the writer stated "*I have owned ATVs for 34 years. I am well aware of their amenity both three wheeled and four wheeled in the workplace. Based on those years of experience, I am of the strong view that the fitting of rollover protection systems to standard saddle seat style ATV/quad bikes will never gain significant traction. Further, if seatbelts were required with rocks the situation would be even worse because as for tractors seat belt wearing rates would be low. The real gains*

reflecting the entity requirements for ATV/quad bikes, will come from fitting of crush protection devices."

In response to an abstract on the Quadbar ROP device, the writer stated "*The Quad bar Crush protection device, after looking at all safety aspects of that device, and similar devices in the United Kingdom and New Zealand, is the best design device currently commercially available anywhere in the world.*" Additionally, in response to an abstract that used video and laboratory analysis to investigate a ROP, he stated that he "*can report that the injury history to date with the equivalent of 2607 quad bike years of quad bar fitment is such as to support an initial assertion that this particular design has the potential to dramatically reduce deaths and serious injuries."*

In the third part of the writer's comment, the 2011 paper, the writer offers:

- a detailed critique of the 1997 report "Review of ATV Characteristics and Roll Over Protection Systems" by Dynamic Research Inc,
- An analysis of the physical strength requirements needed to extract oneself from an overturned vehicle, and

Also in the third part of the writer's comment, the 2011 paper, the writer details , the writer details the following suggested design changes to the vehicles:

- "*Attachment of a rollover / tipover ameliorating device at the rear of the quad bike to limit the degree of rollover and tipover, and minimise the likelihood of crush injury, lost circulation to limbs leading to death, asphyxiation or drowning;*"

- The commenters stated that

  "Investigation and research into various proposed ROPS for ATVs over more than 20 years has found them to be unsuitable for their intended use. Each such device would raise the center of gravity of the ATV, thereby degrading vehicle stability. These proposed structures may also entail injury risks similar to, or greater in magnitude than, any prospective safety benefits."

  They also provided several arguments against "*these structures*," such as,

  - some structures act as a rigid external projections that can cause impact and crush injuries,
  - some structures transmit large g-forces to the user,
  - some structures "*degrade rider mount/dismount, cargo capacities, and overhead clearance*,"
  - some structures "*conflict with 'rider-active' vehicle operational needs*," and
  - ROVs are a separate category of vehicles that use ROPs and restraints and "*are available for those who want such features*."

Subtopic: Seat length

- *"Why was a passenger on the ATV, why do the seats and racks accomodate passengers,"*

- *"make design changes to the seats and cargo rack's to discourage carrying passengers"*

- The commenters state there is not "*any basis for specifying standardized criteria which limit seat lengths on ATV s given the variety of operator movements and position necessitated by the rider-active nature of these vehicles and the varied terrain and slopes that they traverse*," based on a topic discussed at the ATV Safety Summit. At a later point in the comment, they state the suggestion of limiting the length of the seat "*is flawed because current seat lengths on Type I (single rider) ATVs are necessary and appropriate to accommodate the rider-active behavior necessary for different sized riders to safely ride and maintain control of the A TV on different terrains."* In addition, they state "*The ATV Safety Summit presentation offered no data demonstrating that the current length or placement of seats on Type I ATV s encourages the carrying of passengers or that the multiple on-vehicle warnings mandated by the ANSI/SVIA standard are inadequate to inform riders and potential passengers of the dangers associated with two-up riding on such vehicles*, " and conclude "*There is no basis for specifying standardized criteria which limit seat lengths on ATV s, given the variety of operator movements and position necessitated by the rider-active nature of these vehicles and the varied terrain and slopes that they traverse."* Figures to demonstrate the drive positioning on an ATV seat were provided as an Appendix to the comment.

- *"Seat length: Some single-person ATVs are designed with seats that can accommodate multiple riders while others are not. If the longer seats are required for active riding, then are the shorter seats unsafe? Conversely, if the shorter seats are safe, why are longer seats needed and allowed?*

  Recommendation: Comprehensive studies to identify optimal seat design to reduce carrying of passengers and age-inappropriate operation should be supported and industry standards should be developed based on results from those studies."

- On response to an abstract focused on injury data regarding passengers, the writer stated "*[t]he results of this research are entirely predictable in an engineering sense. ATVs are designed for a second passenger that passenger is invariably located to the rear of the rider and generally higher than the rider. And that position of the passenger destabilises the ATV/quad bike, especially in respect of rearward tip overs."*

  In the third part of the writer's comment, the 2011 paper, the writer details the following suggested design changes to the vehicles:
  - *"Redesign of the seat squab to limit the space to one rider;*
  - *Redesign of the seat squab to limit the space to one rider;*

- *Redesign of the cargo carrying racks at the front and back to prevent them being used for seating passengers;*"

Subtopic: Spark arrester qualification

- "*The ANSI/SVIA standard provides that all A TV s shall have a spark arrester of a type that is qualified according to the USDA Forest Service Standard. CPSC has provided no explanation or justification whatsoever for allowing the use of spark arresters that are alternatively qualified under the SAE 1350 standard."*

Subtopic: Speed

- *Speed: ATVs continue to increase in maximum speed capacity and vehicle weight. What are ATVs that can go 40, 50, even 80 mph designed to do and what does increasing vehicle weight add to their utility? Where does one ride an off-highway vehicle for recreation going 40-50 mph? What work-related tasks require that speed? Where are the results of tests showing that ATVs are safe at highway speeds on any terrain? Epidemiologic and vehicle dynamic studies suggest the opposite.*
  Recommendations: Support should be provided for studies to identify maximum speeds sufficient to the intended uses of the vehicle and still of optimal safety. Industry standards should include prohibiting the sale of vehicles capable of unsafe speeds for which there is no use-based need, and tamper-proof speed limiters should be developed that allow for further speed reduction where desired by the consumer."

- 75-page paper entitled "Quad Bike Safety: In search of a good theory." The paper is focused on workplace injuries, as the majority of focus on ATVs (aka quad bikes) in Australia is in their workplace use.
  A statement at the beginning of the paper says "*To answer this question fully requires detailed investigation of many overturning cases Research on tractor overturnings led to the conclusion that improved stability would have only a marginal effect and that ROPS would be a more effective control measure for fatalities. There may be some scope with quad bikes, but power/weight ratio could be relevant.*" This is provided as an answer to "question 1," but the questions were not provided.

- "*For recreational or workplace situations the writer can see no need for higher speed capabilities above about 50 km/h.*" (note: 50 km/h is approximately 31 mph).

- The commenters state "*There is no basis for establishing a single, uniform limit on the maximum speed capability of all adult-size ATV s given the multiple engineering and design factors that go into determining maximum speed capability*," which appears to be a response to a topic brought up at the ATV Safety Summit. At a later point in the comment, they provide more support for this statement include providing scenarios "*where riding off-highway at speeds greater than 40 mph is both safe and appropriate,*" and state "*CPSC data*

has never shown a significant correlation between high speed per se *and ATV accidents.*" The discussion concludes "*the ATV Companies suggest that CPSC not invest significant time and resources into pursuing possible maximum speed capability limits for adult-size ATVs.*"

- The commenters summarized an ASE report submitted as an NPR comment in 2006 regarding the support for the maximum speed capabilities in the ASNI/SVIA standard and concluded "*CPSC should not make any changes in the maximum speed capability provisions in the ANSI/SVIA standard."*

Subtopic: Stability

- *"The last issue is Stability. The ATV Industry must be made accountable for the dismal safety rating of All Terrain Vehicles. ATV's roll over with punishing regularity. If a certain make of an automobile rolled over as frequently as an ATV it would be recalled until made safer. Why hasn't this been done for all ATV's? It was stated at the summit that 65% of all ATV deaths were caused by rollovers. The number is even higher when it comes to children. Yet now the industry is being allowed to make bigger/heavier models of ATV's for children without fixing the stability problems first. The manufactures and others have studied, talked and collected data for over 30 years yet no meaningful design changes have occurred. Again, this makes no sense. The prescription for the future is more data collection, ineffective labels and training and supervision. All methods with no proven benefits, while the deaths and injuries continue to climb."*

- The commenter stated that that ATVs (and ROVs/UTVs, which were not the subject of this FR notice) "*have a problem with pitch stability,*" and that the low-pressure tires act as a "*undamped spring,*" causing the suspension to reach its harmonic frequency at relatively low speeds while traversing "*whoop-de-doos*." He provided two technical papers published by SAE International® to support his conclusion that the uncontrolled pitching could be controlled by:
    1) Stiffening the tire by pressurizing it to 10 psi, so as to use the vehicle suspension rather than the tires,
    2) Tuning the front and rear suspensions to a "*harmonic frequency of about 1,*" and
    3) Tuning the shock absorbers "*to control the vertical motions of the front and rear to allow the vehicle to leave a bump in a practically level attitude*"

- The writer suggests "*undertaking tests with an 80 kg weight located so its centre of mass was about 100mm above the top of the seat*" to measure the relative stability of ATVs. He also specifically suggested ATV manufacturers "*make design changes to the tyres and wheels and suspensions to reduce the hazards associated with operating ATVs on*

pavements (there are hundreds of millions of four wheeled vehicles that operate perfectly safely on paved roads)"

- In response to an abstract related to an ATV simulator study, the writer commented that when ATVs are "*used in the workplace or being used in a business, the operation of these vehicles at speeds/around curves/on slopes where active riding is required would in most cases be considered to be irresponsible riding. This is because of the risk of death and serious injuries when operating ATVs close to the limits.*"

- In the third part of the comment, a 2011 paper, the writer details an analysis of active riding, which concludes "*active riding will not normally be a benefit with responsible riders"*

- The comment expressed a position that "i*nherent instability of ATVs is a serious problem that must be addressed,*" that "*the pitch stability equation must be improved*," and that a lateral stability test, "*which would include both static and dynamic rollover test, such as the test the National Highway Traffic Safety Administration (NHTSA) used for motor vehicles, and a comparative analysis of vehicle performance*" must be included.

- "*Section 141 0.9(a) of the proposal provides that the pitch stability test shall be conducted with tire pressure inflated to the highest recommended pressure setting if more than one pressure is specified. The ANSIISVIA standard provides instead that the lowest recommended pressure setting shall be used. … A slight increase in tire pressure does not significantly increase the tire circumference or raise the center of gravity height for the vehicle. CPSC has presented no data showing that the ANSI/SVIA test method results in the vehicles presenting an unreasonable risk of injury or that its proposed change would actually reduce ATV - related injuries."*

- "*Section 1410. 9(b)(2) appears to require the use of a tilt table test method as an additional test for pitch stability. Although the preamble discusses this additional test method as "optional," the proposed regulation seems to mandate it. … No evidence has been presented indicating that vehicles which use the current measurement method to meet the standard present an unreasonable risk of injury, or that use of the tilt table test method would reduce any such risk. In addition, to include an additional method would be redundant and lead to additional testing and expense for no purpose."*

Subtopic: Steering

- The writer states that "*problems exist with both the handling of ATV's.*" He further states that his testing of "*many ATVs and UTVs*" (UTVs, aka ROVs, are were not the subject of this FR notice) "*illustrates a severed understeer to oversteer characteristic that transitions at about 0.3 g's to oversteer*." He offered to provide the technical data that supports this statement, and said it was based on a SAE J266 standard circle test. Furthermore, he states he was successful in eliminating "*these very bad characteristics*" without using a differential by adjusting "*the roll stiffness of the front and rear.*" The modified vehicle "*demonstrates*

understeer out to the lateral limit of the vehicle." He provided a link to a blog that summarized his finding.

Subtopic: VIN sequence

- "*This proposed requirement is at odds with the YIN number sequencing systems currently used by several of the ATV Companies. This would necessitate the development of new YIN number sequences which would be costly, burdensome and create confusion because of their divergence from prior sequences for earlier years of similar models. It would also disrupt and impede YIN reporting to state agencies, which is based on the current systems of the ATV Companies. CPSC has not identified any risk of injury or safety benefit associated with this proposed provision."*

Subtopic: Youth ATVs transmission

- *"CPSC has presented no data to support the contention that the current transmission shifting task on non-fully automatic transmission youth models presents an unreasonable risk of injury to younger riders. Indeed, CPSC's own 'Age Determination Guidelines' state that 9 through 12 year-old children generally can operate a motorized vehicle that has gear shifting and does not exceed 10 miles per hour. … Many youth model motorcycles, go-karts and other motorized vehicles with higher speeds use manual clutches and are successfully operated by youth riders. Finally, a changeover in these youth models to fully automatic transmissions would involve significant expense, both to the manufacturer and to the consumer, without any verified accompanying safety benefit."*

Other

- *"An ATV is not a toy. We often read in the news about adults and children injured or killed while riding ATVs. An ATV is a dangerous vehicle both to the person riding it and to others in the vicinity who may be hit by someone else's vehicle. ATVs also commit damage to lands, waters or wildlife habitat when they are driven in sensitive areas."*

- *"It was a pleasure attending the first ever ATV Safety Summit in Bethesda, MD. We at Concerned Families for ATV Safety found it to be very informative, however very concerning as well since the topics and discussions were ones we have heard for the past several years. It saddens us that the only thing that seems to have changed is the mounting deaths and injuries from people, many of them children, involved in All Terrain Vehicles Crashes. ... Enough of the studies, it's time for meaningful action on the part of Honda, Yamaha, Polaris, Arctic Cat, Kawasaki, Suzuki, KYMCO and the rest of the ATV manufactures doing business in the United States and abroad. We are upset and very disappointed that we continue to see children being maimed and killed due to these unsafe machines that aren't being regulated to the standards they should be."*

- *"1. In the case of product safety, the ATV industry should seek to better understand the principles of injury prevention and partner with experts to improve safety using many approaches in addition to education/training. The Consumer Product Safety Commission could greatly benefit the consumer by facilitating these partnerships and where necessary mandating effective injury prevention efforts.*

  The ATV industry values the role of training and education but does not see the problem in the full context of injury prevention. Engineering changes do not always reflect risk reduction and opposition to any age restrictions does not reflect an understanding of the most effective preventive approaches.

  In addition, the burden of proof and identification of the most effective injury prevention approaches has rested far too much on the user, healthcare providers, and the injury prevention community. These groups have relatively few resources and at the same time their findings are held to a very high standard of proof. Evidential findings are often dismissed by the industry and industry-related individuals, as well meaning as they may be, have been allowed to dominate the conversation without providing evidence to support their beliefs.

  Persons in the industry no doubt believe what they claim, but it is well documented that when we have a vested interest in a belief (e.g., desire to sell vehicles), we lose objectivity. When we lose objectivity, we can accept illogical arguments, ignore evidence, and even try to suppress evidence that challenges our belief.

  Consider the following. The ATV industry supports training and helmet laws (neither would reduce and the former may even increase sales) but opposes evidence-based age restrictions and mandated vehicle re-design (both could negatively impact sales). Is it fair to the consumer that the industry gets to pick and choose injury prevention approaches based on industry profit not consumer protection? The idea that the industry itself will set consumer protection as its highest priority ignores the reality of business. Consumer protection agencies and advocates must play that role.

  Here are areas for consideration and problem solving. The ATV industry should be required to help support these activities."

- *"Important point with respect to understanding ATV death and injury prevention for youth, the appropriate comparison for an ATV is an automobile/motorcycle/etc., not a bicycle."*

- *"The California Off-Road Vehicle Association (CORVA) was formed as an advocacy organization to protect public land access for all those who want to enjoy motorized recreation, or who use motorized vehicles for any use, including hunting fishing, kayaking and rock-hounding. All Terrain Vehicles are critical to the continued ability of these enthusiasts to access public lands and enjoy these activities with their families."*

- *"I watched the ATV Safety Summit on the live webcast. Thanks for this opportunity to comment. I was impressed with the mostly positive dialogue of participants. It was, however, disheartening to witness vitriolic comments from some (example: "we must stop the slaughter"), without being discouraged by the CPSC."*

- *"The fact sheet 'ATV Safety at Work' (NIOSH Publication Number 2012-167) that provides employers and workers with safety recommendations to use ATV safely in their jobs. It can be found at http://www.cdc.gov/niosh/docs/2012-167/."*

- *"The NIOSH Science Blog featured ATV safety and work this week. As ATV use in the workplace increases so has the risk of death and injury related to the use of these vehicles. For more information including how to protect workers visit the NIOSH Science Blog at http://blogs.cdc.gov/niosh-science-blog/2012/10/atv/"*

- *"that is why i am submitting this today i believe they are unsafe for any age and should have manditory safety requirements and that only then will the deaths stop i personnally know 3 people that have died on them young and old and i have had two adult members severly injured on atv's."*

- *"I am writing you today to ask that you place stronger restrictions on the ATV Manufactures when it comes to the Safety of Children."*

- *"As a pediatric emergency medicine physician at Children's Hospital Boston and a pediatric trauma surgeon at the Massachusetts General Hospital, we are hopeful that all of the stake holders who have come here to testify in this session can join together to enable the passage of meaningful legislation which would include training, safety and legitimate age restrictions that have been now shown to reduce injuries and deaths in now three places (Quebec, Nova Scotia and Massachusetts). We are thankful that the CPSC has recognized the need for further discussion about A TV s and the safety of children, and we appreciate your consideration of our testimony."*

- *"There is no rules and regulations concerning these "loaded guns" just build them and sell them."*

- *"Is this really necessary??? Maybe people should just slow down."*

- *"It frustrates me that we have professional men and women, parents, grandparents , aunts and uncles that sit on this committee that have to even second guess the importance of rulemaking for atv's."*

- *"It's simple, if ATV riders don't have safe public riding areas, then they will ride on illegal riding areas that are significantly more dangerous. Those illegal areas are not checked or maintanined to be safe and they are not checked for environmental affects. Please, provide areas that have public backing to ensure riding areas are available and they are maintained to ensure environmental and safety issues are in check."*

- *"OHV outings are an excellent source of family activities and provide lots of learning experiences applicable to all aspects of life. … Riders should be encouraged or even incentivised to join local clubs where they can learn from experienced riders and develop good OHV citizenship habits. Our Utah Trail Machine Association (www.utma.net) promotes Conservation, Courtesy, and Safety."*

- 75-page paper entitled "Quad Bike Safety: In search of a good theory." The paper is focused on workplace injuries, as the majority of focus on ATVs (aka quad bikes) in Australia is in their workplace use.
  The paper includes detailed discussions on topics such as arousal, signal detection, visual perception/acuity/processing, attention, information processing, memory (short and long term), decision making, multitasking and its effect on attention (e.g. cognitive distraction), and emotion as "*factors a quad bike designer needs to allow for*."

  A statement at the beginning of the paper says "*The requirements for avoiding passenger carrying are as valid as they were for tractors. The challenge is to overcome the ingenuity of the end users of the machine and of their friends. If there are consistent needs for passenger carrying, a diffident machine e.g. a 'side by side' should be used.*" This is provided as an answer to "question 4," but the questions were not provided.

- In the preamble, the writer compares helmet wearing to seat belt wearing and bicycle helmet wearing and concludes that it is "*highly likely with ATV/quad bikes used off road that helmet wearing rated will be only on the order of 35%. And note that the people wearing helmets are likely to be the more responsible ATV/quad bike riders, so the reduction in overall head trauma will be significantly less than 35%.*"

- "*research any computer simulation that does not have the ability to use simulate active riding will never give guidance in relation to ATV design. The reason that ISO 13232 is limited to upright motorcycle crashes - vehicles travelling in a straight line, is that that is the only situation in which the position of the motorcycle and the rider manikin can be*

guaranteed to reflect real-life. As the DRI research showed, simulation based on a passive manikin produces results which are not worth the paper they are written on."

- The writer's response to the SVIA abstracts published in the program that are not otherwise included in this document are included below:

  "*Disappointing – no mention of any consideration of redesigning ATV/quad bikes to make them inherently safer. As is the case with motorcycle manufacturers generally, and their representatives, the pressure from them is always associated with personal protective equipment, including helmets, and training. If they are the ones who have the power to change the design of their vehicles to improve safety.*"

  "*Once again, I'm disappointed – the ATV safety Institute makes no mention of any consideration of redesigning ATVs to make them inherently safer. See my comments in relation to SVIA.*"

- The writers state that the ATV industry has "*been allowed to dominate the conversation without requiring evidence to support their conclusions,*" while other stakeholders' findings "a*re held to a very high standard and are often dismissed by ATV manufactures [sic] and other industry-sponsored stakeholders"*

- *"ATV manufacturers may 'strive to constantly improve and innovate their vehicles' however, I've seen no evidence of them taking a serious approach to innovations in safety. Like the rest of the motorcycle industry most innovation relates to performance. – speed and ability to handle rough and rugged conditions. It's time that safety was given the same importance as performance.*"

- One comment consisted of a two page cover letter explaining the content of the seven exhibits (A-G) included with the comment.
    - Exhibits A and B were the slides presented by the commenter and a colleague at the ATV Safety Summit.
    - Exhibits C and D were copies of proceedings papers from the 2007 HFES Annual Meeting in Baltimore, MD
        - The papers are summations of report ASE submitted in response to the NPR public comment period
    - Exhibit E was copies of slides presented by the commenter to CPSC staff at a public meeting 9 March 2007
    - Exhibit F was a resubmission of comments ASE submitted to the 2005 ANPR
    - Exhibit G was a resubmission of comments ASE submitted to the 2006 NPR

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

Fatalities in Traffic Crashes Involving All-Terrain Vehicles (Department of Transportation)

1 message

peter_[redacted] Wed, Mar 3, 2021 at 10:21 PM
To: Jennifer Uebelher <jennifer.uebelher@state.co.us>, Herman Stockinger <herman.stockinger@state.co.us>

Herman and Jennifer,

I discovered another document that should be shared with the Commissioners. This one comes from the Department of Transportation (DOT). It is categorized as a "Summary of Statistical Findings" and delves into ATV deaths and injuries across the nation.

It is interesting to compare ATV deaths in Colorado with other States that grant OHVs and ATVs greater access to public roads and highways – deaths in those States are significantly higher.

If the Department of Transportation is concerned about ATV deaths, why are CDOT and the Transportation Commission pushing to expand OHV and ATV access on our State highways?

Thank you,

Peter [redacted]

DOT – Fatalities in Traffic Crashes Involving All-Terrain Vehicles.pdf
588K

U.S. Department of Transportation
National Highway Traffic Safety Administration

TRAFFIC SAFETY FACTS
Research Note

NHTSA
www.nhtsa.gov

DOT HS 812 193 | Summary of Statistical Findings | September 2015

Fatalities in Traffic Crashes Involving All-Terrain Vehicles

Summary

Traffic fatalities related to on-road all-terrain vehicles (ATVs) represented 1 percent of total motor vehicle traffic fatalities each year from 2004 to 2013. The yearly ATV-related fatality counts from 2004 to 2013 ranged from a low of 307 in 2012 to a high of 381 in 2008.

- Most of these ATV-related fatalities were ATV occupants who were (in no particular order and mutually exclusive): ATV operators (drivers), unhelmeted, killed in single-vehicle crashes, male, killed in rural areas, killed during the weekend, killed during nighttime, and killed between May and September.
- The majority of ATV occupant fatalities (operators and passengers) were 15 to 24 years old.
- From 2004 to 2013, an estimated 39 percent of ATV operators involved in fatal crashes were legally alcohol-impaired with blood alcohol concentrations (BACs) of .08 grams per deciliter (g/dL) or higher, compared to 28 percent for motorcycle operators, 23 percent for passenger car drivers, and 22 percent for light-truck drivers.
- The States with the highest number of ATV occupant fatalities from 2004 to 2013 were West Virginia, Kentucky, Pennsylvania, Florida, and Texas.

Introduction

ATVs are defined as off-road recreational vehicles that may or may not be permitted for use on public roadways depending on a wide range of State regulations. An ATV generally has three or more low-pressure tires, a straddle seat, a handlebar for steering, and hand controls for braking and acceleration. As with any vehicle, proper training and education are important when operating an ATV. Because licensing requirements for on-road use of ATVs vary widely across States and because ATVs are manufactured in various sizes for both children and adults, the National Highway Traffic Safety Administration believes that education about ATV crashes is vital for safety even if they represented only 1 percent of all motor vehicle traffic fatalities from 2004 to 2013. This research note uses data from NHTSA's Fatality Analysis Reporting System (FARS) to analyze the crash characteristics and factors associated with many of the ATV-related fatalities, such as alcohol use, not wearing helmets, and unsafe ATV-driving behaviors.

ATVs are not intended for on-road usage; however, they are ridden on public roads illegally in some jurisdictions and legally in others. FARS captures data on all fatal motor vehicle traffic crashes, including on-road ATV fatal crashes. FARS does *not* capture ATV-related fatal crashes that occur off-road. However, the Consumer Product Safety Commission reports annually on any ATV-related fatalities and injuries, including both on-road and off-road incidents.[1]

FARS Data and Limitations

FARS is a census of fatal traffic crashes in the 50 States, the District of Columbia, and Puerto Rico. To be included in FARS, a crash must involve a motor vehicle traveling on a roadway and must result in the death of at least one person (a vehicle occupant (operator or passenger) or a nonoccupant (pedestrian, bicyclist, or other)) within 30 days of the crash. The FARS final files from 2004 to 2012 and the FARS annual report file (ARF) for 2013 were used for this research note. Beginning with 2012, the FARS ATV body type attribute excludes side-by-side ATVs (ATVs with steering wheels and automobile-type seats).

BAC test results are not known for all operators involved in ATV-related fatal crashes. Missing data can result for a number of reasons – the most frequent is that operators are not always tested for alcohol. Each State or local jurisdiction has its own guidelines of when to administer BAC tests in fatal crashes. To address the missing data issue, NHTSA uses a statistical model called "multiple imputation" to estimate the BAC of the operator at the time

[1] www.cpsc.gov/en/Safety-Education/Safety-Education-Centers/ATV-Safety-Information-Center/

of the crash. For more information on multiple imputation, see NHTSA's Technical Report (DOT HS 809 403, www-nrd.nhtsa.dot.gov/Pubs/809-403.pdf), "Transitioning to Multiple Imputation – A New Method to Impute Missing Blood Alcohol Concentration (BAC) Values in FARS." The statistical model was developed at the national level using all available known data and applied to each individual operator with missing or unknown BAC test results.

This research note focuses on ATV-related fatalities that occurred on public roadways; any ATV-related fatalities that occurred off-road were excluded.

Analysis Discussion

ATV-Related Fatalities

Table 1 presents a yearly distribution of fatalities in motor vehicle traffic crashes that involved an ATV by person type (ATV occupants (operators and passengers), other vehicle occupants, and nonoccupants (pedestrians, pedalcyclists, and others)) from 2004 to 2013. Of the 3,411 ATV-related fatalities between 2004 and 2013, a total of 3,360 (98.5%) were ATV occupants, 36 (1.1%) were other vehicle occupants, and 15 (0.4%) were nonoccupants.

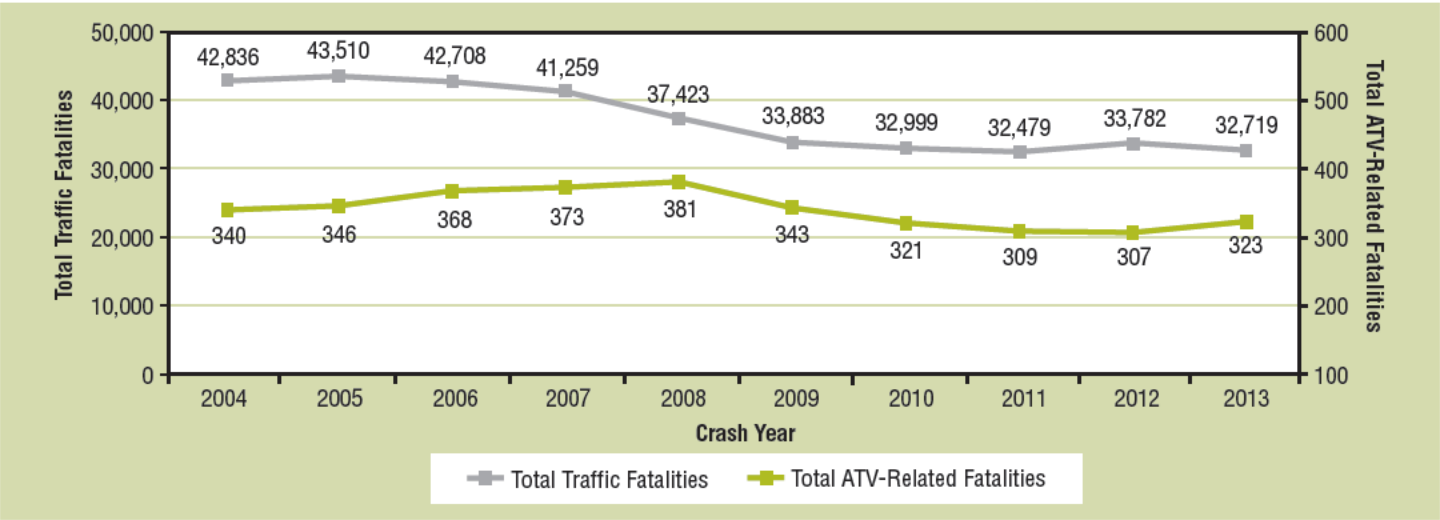
Table 1
Fatalities in Traffic Crashes That Involved an ATV, by Crash Year and Person Type, 2004–2013

	Person Type						Total ATV-Related Fatalities
	ATV Occupants		Other Vehicle Occupants		Nonoccupants		
Crash Year	Number	Percent	Number	Percent	Number	Percent	
2004	337	99.1%	2	0.6%	1	0.3%	340
2005	337	97.4%	8	2.3%	1	0.3%	346
2006	362	98.4%	4	1.1%	2	0.5%	368
2007	368	98.7%	3	0.8%	2	0.5%	373
2008	377	99.0%	4	1.0%	0	0.0%	381
2009	335	97.7%	7	2.0%	1	0.3%	343
2010	316	98.4%	4	1.2%	1	0.3%	321
2011	305	98.7%	1	0.3%	3	1.0%	309
2012	304	99.0%	1	0.3%	2	0.7%	307
2013	319	98.8%	2	0.6%	2	0.6%	323
2004–2013	3,360	98.5%	36	1.1%	15	0.4%	3,411

Source: FARS 2004–2012 Final File, 2013 ARF

Figure 1 displays the 10-year trends of total traffic fatalities and total ATV-related fatalities from 2004 to 2013. The number of total ATV-related fatalities increased by 12 percent from 340 fatalities in 2004 to 381 in 2008, decreased by 19 percent from 381 fatalities in 2008 to 307 in 2012, and increased by 5 percent from 307 fatalities in 2012 to 323 in 2013.

Figure 1
Total Traffic Fatalities and Total ATV-Related Fatalities in Motor Vehicle Traffic Crashes, 2004–2013



Source: FARS 2004–2012 Final File, 2013 ARF

ATV Operators and Alcohol

Table 2 presents the alcohol involvement of ATV operators involved in fatal traffic crashes from 2004 to 2013.

- Of the 3,472 ATV operators *involved* in fatal crashes, an estimated 1,632 operators (47%) had some alcohol in their systems (.01+ g/dL) and an estimated 1,364 operators (39%) were legally alcohol-impaired with BACs of .08 g/dL or higher. Eighty-four percent of ATV operators involved with some alcohol in their systems (1,364 of 1,632) had BACs of .08 g/dL or higher.
- Of the 2,918 ATV operators *killed* in fatal crashes, an estimated 1,426 operators (49%) had some alcohol in their systems (.01+ g/dL) and an estimated 1,220 operators (42%) were legally alcohol-impaired with BACs of .08 g/dL or higher. Of these 1,426 ATV operators killed with some alcohol in their systems, 86 percent (1,220) had BACs of .08 g/dL or higher.
- Of the 554 ATV operators who *survived* in fatal crashes, an estimated 206 operators (37%) had some alcohol in their systems (.01+ g/dL) and an estimated 144 operators (26%) were legally alcohol impaired with BACs of .08 g/dL or higher. Of these 206 ATV operators who survived with some alcohol in their systems, 70 percent (144) had BACs of .08 g/dL or higher.

From 2004 to 2013, an estimated 39 percent of ATV operators involved in fatal crashes were legally alcohol-impaired with BACs of .08 g/dL or higher, compared to 28 percent for motorcycle operators, 23 percent for passenger car drivers, and 22 percent for light-truck drivers.

Table 2
Alcohol Involvement of ATV Operators Involved in Fatal Crashes, by Operator Status, 2004–2013

Operator Status	Number of ATV Operators	BAC = .00 g/dL		BAC = .01+ g/dL		BAC = .08+ g/dL	
		Number	Percent	Number	Percent	Number	Percent
Survived	554	349	63%	206	37%	144	26%
Killed	2,918	1,492	51%	1,426	49%	1,220	42%
Total Involved	3,472	1,841	53%	1,632	47%	1,364	39%

Source: FARS 2004–2012 Final File, 2013 ARF

Table 3 presents the distribution of alcohol involvement of ATV operators involved in fatal traffic crashes by age group from 2004 to 2013. The 35-to-44 age group had the highest percentage of ATV operators involved in fatal traffic crashes with BACs of .08 g/dL or higher at 62 percent, followed by the 45-to-54 age group (59%), the 25-to-34 age group (53%), and the 21-to-24 age group (42%).

From 2004 to 2013, the 35-to-44 age group had the highest percentage of legally impaired ATV operators involved in fatal crashes with BACs of .08 g/dL or higher at 62 percent, compared with the 35-to-44 age group for motorcycle operators (37%), the 25-to-34 age group for passenger car drivers (33%), and the 25-to-34 age group for light-truck drivers (29%).

Table 3
Alcohol Involvement of ATV Operators Involved in Fatal Crashes, by Age Group, 2004–2013

Age Group	Number of ATV Operators	BAC = .00 g/dL		BAC = .01+ g/dL		BAC = .08+ g/dL	
		Number	Percent	Number	Percent	Number	Percent
<15	279	259	93%	20	7%	12	4%
15–24	1,144	748	65%	396	35%	300	26%
15–20	*705*	*544*	*77%*	*161*	*23%*	*117*	*17%*
21–24	*439*	*204*	*47%*	*235*	*53%*	*183*	*42%*
25–34	698	256	37%	442	63%	370	53%
35–44	559	171	31%	388	69%	348	62%
45–54	372	124	33%	248	67%	219	59%
55–64	211	112	53%	99	47%	83	39%
65–74	114	82	72%	32	28%	28	24%
75+	87	80	92%	7	8%	5	6%
Unknown	8	7	89%	1	11%	0	5%
Total Involved	3,472	1,841	53%	1,632	47%	1,364	39%

Source: FARS 2004–2012 Final File, 2013 ARF

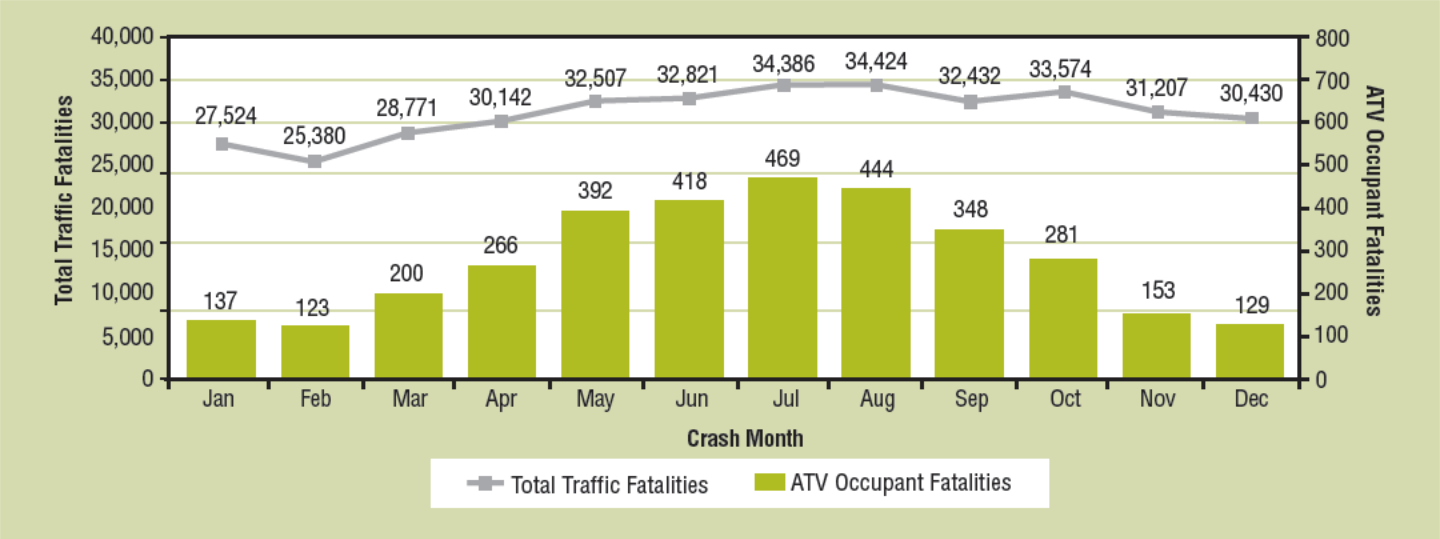
ATV Occupant Fatalities

From 2004 to 2013, a total of 3,360 people were ATV occupant fatalities. Of these fatalities:

- 2,918 (87%) were operators and 442 (13%) were passengers.
- 405 (12%) were helmeted, 2,847 (85%) were unhelmeted, and 108 (3%) were unknown. Some States have laws for requiring helmet use for operating ATVs.[2]
- 2,476 (74%) were killed in single-vehicle crashes and 884 (26%) were killed in multiple-vehicle crashes.
- 2,859 (85%) were male occupants and 501 (15%) were female occupants.
  - Of the male occupants, 2,647 (93%) were operators and 212 (7%) were passengers.
  - Of the female occupants, 271 (54%) were operators and 230 (46%) were passengers.
- 2,895 (86%) were killed in rural areas, 443 (13%) were killed in urban areas, and 22 (1%) were killed in unknown areas.[3]
- 1,920 (57%) were killed during the weekend (from 6 p.m. Friday to 5:59 a.m. Monday), 1,431 (43%) were killed during the weekday (6 a.m. Monday to 5:59 p.m. Friday), and 9 (<1%) were unknowns.
- 1,809 (54%) were killed during nighttime (from 6 p.m. to 5:59 a.m.), 1,481 (44%) were killed during daytime (from 6 a.m. to 5:59 p.m.), and 70 (2%) were unknowns.
  - Of the 1,809 nighttime fatalities, 1,186 (66%) were weekend fatalities and 623 (34%) were weekday fatalities.
  - Of the 1,481 daytime fatalities, 790 (53%) were weekday fatalities and 691 (47%) were weekend fatalities.

Figure 2 displays the distributions of total traffic fatalities and ATV occupant fatalities by crash month from 2004 to 2013. The month with the highest number of ATV occupant fatalities was July (469), followed by August (444), June (418), May (392), and September (348). In short, more ATV occupant fatalities occurred in warmer months than colder months.

Figure 2
Total Traffic Fatalities and ATV Occupant Fatalities in Traffic Crashes, by Crash Month, 2004–2013



Source: FARS 2004–2012 Final File, 2013 ARF

[2] www.cpsc.gov/en/Safety-Education/Safety-Education-Centers/ATV-Safety-Information-Center/State-ATV-Information/
[3] See the U.S. Census Bureau link to define urban and rural areas: www.census.gov/geo/reference/ua/urban-rural-2010.html.

Table 4 presents a distribution of ATV occupant fatalities by age group and person type (operator or passenger) from 2004 to 2013. The 15-to-24 age group had the largest percentage of ATV occupant fatalities (31%), followed by the 25-to-34 age group (19%) and the 35-to-44 age group (16%).

Table 4
ATV Occupant Fatalities in Traffic Crashes, by Age Group and Person Type, 2004–2013

Age Group	Person Type			Percentage of Overall Total
	Operators	Passengers	Total	
<15	204	118	322	10%
15–24	883	172	1,055	31%
15–20	*531*	*126*	*657*	*20%*
21–24	*352*	*46*	*398*	*12%*
25–34	593	62	655	19%
35–44	500	43	543	16%
45–54	346	30	376	11%
55–64	195	10	205	6%
65–74	113	6	119	4%
75+	84	1	85	3%
Overall Total	2,918	442	3,360	100%

Source: FARS 2004–2012 Final File, 2013 ARF

For each State, the District of Columbia, and Puerto Rico, Table 5 presents the number of ATV occupant fatalities for each year from 2004 to 2013. Puerto Rico is not included in the overall U.S. total. The States with the highest number of ATV occupant fatalities from 2004 to 2013 were West Virginia (209), Kentucky (204), Pennsylvania (189), Florida (182), and Texas (172).

Suggested APA format citation for this report:

National Center for Statistics and Analysis. (2015, September). Fatalities in traffic crashes involving all-terrain vehicles (Research Note. Report No. HS 812 193). Washington, DC: National Highway Traffic Safety Administration.

U.S. Department of Transportation
National Highway Traffic Safety Administration

This research note and other general information on highway traffic safety may be accessed by Internet users at: www-nrd.nhtsa.dot.gov/CATS/index.aspx

Table 5
ATV Occupant Fatalities in Motor Vehicle Traffic Crashes, by State and Crash Year, 2004–2013

State	Crash Year										
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2004–2013
Alabama	5	7	8	12	11	20	6	6	10	6	91
Alaska	5	4	4	2	3	4	1	0	1	5	29
Arizona	7	9	12	11	17	7	4	13	6	6	92
Arkansas	10	7	11	8	15	7	10	10	14	11	103
California	10	14	21	20	24	16	7	12	5	10	139
Colorado	2	1	0	0	0	1	1	0	0	1	6
Connecticut	4	1	2	1	1	0	1	2	0	0	12
Delaware	0	2	0	1	0	0	1	0	0	0	4
District of Columbia	0	0	0	0	0	0	0	0	0	0	0
Florida	26	23	26	27	14	12	12	9	16	17	182
Georgia	13	16	10	7	19	12	13	11	14	12	127
Hawaii	0	1	2	1	1	1	1	0	1	0	8
Idaho	3	1	3	4	5	6	5	8	7	5	47
Illinois	8	6	11	11	7	7	8	6	9	8	81
Indiana	6	8	3	3	1	4	2	2	5	8	42
Iowa	5	5	4	3	3	4	6	10	3	2	45
Kansas	2	7	6	0	3	7	3	6	1	4	39
Kentucky	16	21	20	29	26	18	21	28	15	10	204
Louisiana	5	9	7	7	13	7	8	5	13	12	86
Maine	6	4	4	3	1	5	3	4	4	3	37
Maryland	2	3	2	3	3	1	0	2	4	2	22
Massachusetts	4	1	1	0	0	2	0	0	0	0	8
Michigan	14	8	12	7	11	9	16	9	7	7	100
Minnesota	4	7	3	4	9	9	8	8	8	7	67
Mississippi	4	12	9	11	17	9	6	4	7	4	83
Missouri	13	17	14	12	14	19	18	6	8	20	141
Montana	5	3	1	3	5	6	3	6	2	5	39
Nebraska	4	0	5	4	1	5	3	4	1	3	30
Nevada	2	0	0	0	1	1	0	2	1	1	8
New Hampshire	1	1	0	0	0	0	0	0	0	2	4
New Jersey	2	5	2	2	3	3	3	2	3	1	26
New Mexico	3	4	3	1	3	6	1	2	2	5	30
New York	14	16	18	15	10	8	13	12	15	13	134
North Carolina	6	3	2	3	3	10	9	4	10	9	59
North Dakota	0	4	3	2	2	3	0	3	3	3	23
Ohio	18	3	20	10	16	13	13	13	15	12	133
Oklahoma	7	7	9	9	8	3	8	5	5	7	68
Oregon	5	5	3	6	5	5	2	1	2	1	35
Pennsylvania	20	19	18	17	20	17	20	23	18	17	189
Rhode Island	1	0	0	1	0	0	0	0	0	0	2
South Carolina	2	0	1	1	5	0	2	0	0	1	12
South Dakota	2	2	2	1	2	0	1	1	4	1	16
Tennessee	15	12	14	12	20	12	11	12	10	15	133
Texas	13	16	16	23	20	22	17	13	16	16	172
Utah	1	0	1	2	3	1	10	4	3	3	28
Vermont	2	2	1	7	1	2	1	0	1	4	21
Virginia	8	5	9	2	4	5	3	3	3	1	43
Washington	5	8	3	8	5	3	4	4	0	8	48
West Virginia	17	18	30	32	10	16	18	20	27	21	209
Wisconsin	9	8	4	13	10	5	8	7	4	9	77
Wyoming	1	2	2	7	2	2	5	3	1	1	26
U.S. Total	337	337	362	368	377	335	316	305	304	319	3,360
Puerto Rico	2	0	0	0	0	6	0	0	4	3	15

Source: FARS 2004–2012 Final File, 2013 ARF

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

Hwy. 149 Pilot Program/Helmet Handout

1 message

David [redacted] Thu, Mar 4, 2021 at 4:35 PM
To: CDOT Director Shoshana Lew <Shoshana.Lew@state.co.us>, CDOT Region 3 Manager Michael Goolsby <michael.goolsby@state.co.us>, "CDOT Engineer Jason C. Smith" <jasonc.smith@state.co.us>, CDOT Program Manager Zane Znamenacek <zane.znamenacek@state.co.us>
[redacted]

Dear Officials: I am informed that Hinsdale County Commissioner Robert Hurd told you that 600 helmets (I believe that's the number used) were handed out to OHV'ers this past summer. I know that helmets were handed out and I believe the Alpine Outdoor Association (and possibly others) provided them. They may have been bicycle helmets, not DOT approved helmets. A quick Amazon search revealed that the cheapest DOT approved helmet sells for $14.95. Even if a bulk order reduced the cost to $7.00, that's a lot of money. If you are truly interested in safety, you will request Commissioner Hurd to provide the invoices so you can learn what type of helmets were dispensed and whether this effort effectively addresses the safety of OHV occupants.

Thank you for your consideration.

David [redacted]

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

CO149 OHV Pilot Project

1 message

Debra [redacted] Mon, Mar 8, 2021 at 4:29 PM
To: "michael.goolsby@state.co.us" <michael.goolsby@state.co.us>, "zane.znamenacek@state.co.us" <zane.znamenacek@state.co.us>, "shoshana.lew@state.co.us" <shoshana.lew@state.co.us>, "herman.stockinger@state.co.us" <herman.stockinger@state.co.us>, "jennifer.uebelher@state.co.us" <jennifer.uebelher@state.co.us>

I am writing today as I have been made aware that the Transportation Commission is researching concerns about SAFETY and ECONOMIC IMPACT of the OHV Pilot Program on State Highway 149 at Lake City, Colorado.

I own **The Matterhorn Motel** in Lake City. The Motel maintains #1 consumer ratings in the area and has been a successful accommodations business since 1949. As Owner of this long-standing business and as a resident of Lake City, I ask that you consider the following.

ECONOMIC IMPACT
Existing Visitor Base Impact: I have included the results from a Guest Survey that I administered with guests who were the first to experience this newly opened OHV access. Twice as many visitors express that OHV's had a **negative** impact on their visit as those who said it was positive.
See the survey results here http://www.matterhornmotel.com/ohv-survey.html **You will see that the noise, dust and safety had a significant negative impact on the existing tourism base to the area. I have experienced a 48% decrease in Loyal Visitors since the inception of the Pilot Program and introduction of OHV traffic within the town. The common comment when I've spoken with disgruntled guests, "Well, it looks like we've got to find another place to go for peace and quiet". I've had a guest come back from downtown literally CRYING from her experience of what she called Thunderdome.**
No Increase in Lodging Revenue: Lake City has reached 100% capacity in lodging for many, many summers with visitors arriving for hiking, fishing, jeeping, boating, etc. Therefore, any increase in Motorsports tourism can ONLY serve to displace the existing visitor base. There simply cannot be any incremental increase in overnight visitors. Further, the Motorsports (OHV) visitor has proven nationally to spend less per day than other visitor types. Additionally, the damage to the roads, parking lots, and even my Motel rooms by the vehicles and dust/dirt covered drivers increases expenses for the community and my business.
No increase in tax revenue / Existing business closures: The Town and County are unable to provide data that shows that this onslaught of noise, dust, and danger has increased revenue in the area. Why not? The Town has anecdotally reported that any tax revenue increases are the result of a new online business in town. In the meantime, we have watched gallery after gallery close. In fact, in our downtown district there are roughly 25 retail storefronts, with over 30% CLOSED since the introduction of OHVs to our town. The decline in available shopping has been cited to me by MANY guests as a serious drawback to visiting Lake City. The many, many vacant storefronts are an eyesore and blight on what used to be a very pleasant mountain town experience.

SAFETY
Proven Unsafe: I am aware that you have been provided with the manufacturer and consumer safety agencies' data proving that operating these vehicles on ROADS is unsafe. Yet, the Town, County and perhaps the State are opening up our families, pets, visitors to to this deadly threat with no tangible, measurable data to back this decision.
Pandora's Box: How does the Transportation Commission intend to limit OHV access to other State Highways once this pilot program precedent has been set? Your decision is not limited to allowing this significant safety risk just to the residents and visitors of Lake City. You will take our entire state down this slippery slope of unwarranted threats resulting in serious injuries and many deaths while KNOWING the scientific data warnis you against allowing this traffic.

I STRONGLY OPPOSE the OHV Pilot Program on Highway 149. For me, the safety concerns make it a non-starter, but the lack of factual economic benefit (the primary argument for inflicting this upon us) is simply negligent and very, very telling.

I hope for human and animal safety and the future economic viability of Lake City that the Commission will sincerely consider making the responsible decision to discontinue this dangerous and unwarranted practice on our state highway. Visitors who wish to travel the full Alpine Loop can do so as many thousands before them, in a legal, safe automotive vehicle.

With my sincere regards,
Debra [redacted]

[redacted]

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

Document(s) request (CO149 Pilot Project)

7 messages

peter_ [redacted] Mon, Mar 8, 2021 at 2:13 PM
To: Herman Stockinger <herman.stockinger@state.co.us>, Jennifer Uebelher <jennifer.uebelher@state.co.us>
Cc: Shoshana Lew <Shoshana.Lew@state.co.us>, Michael Goolsby <michael.goolsby@state.co.us>, Zane Znamenacek [redacted]

Herman and Jennifer,

I would like to review and comment on the proposed safety “solution" that your office devised while working with the Town of Lake City, Hinsdale County, the Hinsdale County Sheriff’s Office and any other individual or group with regards to renewing the CO149 OHV Pilot Project.

Several Transportation Commissioners expressed concern with the “slippery slope” of approving the CO149 Pilot Project, and several Commissioners had significant concerns with OHVs expanding and operating on Colorado State Highways.

As a citizen who has been actively involved in opposing the CO149 Pilot Project, as well as any effort to expand OHV access to Colorado State Highways, I am requesting access to view and comment on any proposals or revisions that will be presented to the Transportation Commission for discussion and vote.

In the interest of transparency, I believe it is important for this information to be shared in advance of next week’s discussion and vote. It is also important for the public to have adequate time to offer comment to the Transportation Commission and their staff.

Please let me know if you are unable to comply with this request.

Thank you,

Peter [redacted]

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us> Mon, Mar 8, 2021 at 2:16 PM
To: Peter [redacted]
Cc: Herman Stockinger <herman.stockinger@state.co.us>, Shoshana Lew <Shoshana.Lew@state.co.us>, Michael Goolsby [redacted]

Hi Mr. [redacted]

I am still waiting for final materials so that the packet can be compiled. The final TC materials will be posted to the website no less than 24 hours prior to the meeting. You will be able to access the documents

here: https://www.codot.gov/about/transportation-commission/meeting-agenda.html.

Kind Regards,

Jennifer Uebelher
Transportation Commission Liaison
Office of Policy and Government Relations

P 303.757.9025
2829 W. Howard Place, Denver, CO 80204
Jennifer.Uebelher@state.co.us | www.codot.gov | www.cotrip.org

Please consider the environment before printing this email.

[Quoted text hidden]

[redacted] Mon, 8 Mar 2021 14:16:49 -0700
Subject: Re: Document(s) request (CO149 Pilot Project)
Hi Mr[redacted]

I am still waiting for final materials so that the packet can be compiled. The final TC materials will be posted to the website no less than 24 hours prior to the meeting. You will be able to access the documents

here: https://www.codot.gov/about/transportation-commission/meeting-agenda.html.

Kind Regards,

Jennifer Uebelher
Transportation Commission Liaison
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Jennifer.Uebelher@state.co.us | www.codot.gov | www.cotrip.org

COLORADO
Department of Transportation
Office of Policy and Government Relations

Please consider the environment before printing this email.

On Mon, Mar 8, 2021 at 2:13 PM <peter_[redacted] wrote:

> Herman and Jennifer,
>
> I would like to review and comment on the proposed safety "solution" that your office devised while working with the Town of Lake City, Hinsdale County, the Hinsdale County Sheriff's Office and any other individual or group with regards to renewing the CO149 OHV Pilot Project.
>
> Several Transportation Commissioners expressed concern with the "slippery slope" of approving the CO149 Pilot Project, and several Commissioners had significant concerns with OHVs expanding and operating on Colorado State Highways.
>
> As a citizen who has been actively involved in opposing the CO149 Pilot Project, as well as any effort to expand OHV access to Colorado State Highways, I am requesting access to view and comment on any proposals or revisions that will be presented to the Transportation Commission for discussion and vote.
>
> In the interest of transparency, I believe it is important for this information to be shared in advance of next week's discussion and vote. It is also important for the public to have adequate time to offer comment to the Transportation Commission and their staff.
>
> Please let me know if you are unable to comply with this request.
>
> Thank you,
>
> Peter [redacted]

[redacted] Mon, 8 Mar 2021 14:18:18 -0700
from oit-pp04.state.co.us [127.0.0.1]

[redacted] state.co.us> via localhost, to

Action: failed

[redacted]

Kind Regards,

Jennifer Uebelher
Transportation Commission Liaison
Office of Policy and Government Relations

P 303.757.9025
2829 W. Howard Place, Denver, CO 80204
Jennifer.Uebelher@state.co.us | www.codot.gov | www.cotrip.org

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Department of Transportation
Office of Policy and Government Relations

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On Mon, Mar 8, 2021 at 2:13 PM <peter[redacted] wrote:

> Herman and Jennifer,
>
> I would like to review and comment on the proposed safety "solution" that your office devised while working with the Town of Lake City, Hinsdale County, the Hinsdale County Sheriff's Office and any other individual or group with regards to renewing the CO149 OHV Pilot Project.

[redacted]

[redacted]

[redacted] Mon, 8 Mar 2021 14:16:49 -0700
Subject: Re: Document(s) request (CO149 Pilot Project)
Hi [redacted]

Thank you for the prompt response.

I will look for the packet materials as the meeting date approaches, but would certainly appreciate an advance copy if you are allowed to share it.

Thank you,

Peter [redacted]

[Quoted text hidden]

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us> Tue, Mar 9, 2021 at 9:08 AM
To: Peter [redacted]

You're welcome. I post the materials as soon as they are available. I have not received the final materials yet so unfortunately I can't share them with you. I expect to have the packet ready by Friday, Monday at the latest, unless there are unexpected delays. I will send you a notice when it is posted.

Kind Regards,

Jennifer Uebelher
Transportation Commission Liaison
Office of Policy and Government Relations

P 303.757.9025
2829 W. Howard Place, Denver, CO 80204
Jennifer.Uebelher@state.co.us | www.codot.gov | www.cotrip.org

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[Quoted text hidden]

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

Hwy 149 Pilot Program/OHV Court Case

2 messages

David [redacted] Tue, Mar 9, 2021 at 9:57 AM
To: CDOT Director Shoshana Lew <Shoshana.Lew@state.co.us>, CDOT Region 3 Manager Michael Goolsby <michael.goolsby@state.co.us>, "CDOT Engineer Jason C. Smith" <jasonc.smith@state.co.us>, CDOT Program Manager Zane Znamenacek <zane.znamenacek@state.co.us>
[redacted]

Dear Officials: I understand a question was raised at the February Transportation Committee meeting regarding the status of the law regarding OHVs on Colorado highways, due to court rulings. I am familiar with the cases in question. Here's a short explanation.

On August 22, 2018. Ouray County District Judge Yoder, in a case on appeal from the Ouray Municipal Court (City of Ouray vs. Fred R. Walton, Case Number 2018CV30008) , issued an "Order On Appeal' clearly stating that OHVs, whether licensed in another state, or bearing no license, are not permitted to operate on highways in Colorado under Colorado law. Judge Yoder's order explained why a 2002 order by Judge Patrick (wrongly interpreted and expanded in Hinsdale County, in my opinion) does not reflect Colorado law.

Judge Yoder's order caused great consternation in Hinsdale County and the then Sheriff, Justin Casey, resisted following it. In the spring of 2019, the District Attorney for the 7th Judicial District held a meeting of all law enforcement in the 7th District and advised that Judge Yoder's ruling was the current state of the law and was to be followed.

I will provide you with a copy of Judge Yoder's order, if you wish.

David [redacted]

[redacted]

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us> Tue, Mar 9, 2021 at 10:04 AM
To: David [redacted]
Cc: CDOT Director Shoshana Lew <Shoshana.Lew@state.co.us>, CDOT Region 3 Manager Michael Goolsby <michael.goolsby@state.co.us>, "CDOT Engineer Jason C. Smith" <jasonc.smith@state.co.us>, CDOT Program Manager [redacted]

Thank you for the information.

Kind Regards,

Jennifer Uebelher
Transportation Commission Liaison
Office of Policy and Government Relations

P 303.757.9025
2829 W. Howard Place, Denver, CO 80204
Jennifer.Uebelher@state.co.us | www.codot.gov | www.cotrip.org

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[Quoted text hidden]

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

Hinsdale CDOT Program

1 message

Richard [redacted] Tue, Mar 9, 2021 at 7:56 PM
To: Commissioner.Thiebaut@state.co.us

March 9, 2021

Richard [redacted]

Dear Representative,

This comes as a final letter to you prior to the momentous decision that the Transportation Committee will be making regarding the extension of the CDOT OHV Pilot Program in Hinsdale County.

I have corresponded previously and addressed any number of issues as to why the turn in Lake City and Hinsdale County to motor sports and OHV's in particular, (promoted by and somewhat as a result of the CDOT Pilot Program) has had and is having most negative ramifications on our community.

The threatened viability of our pristine wilderness areas, devastation of alternative wildness recreation forms (equestrian, fly fishing, backpacking, trail biking, hiking etc.) the peace and solace of the community, dust/noise creation, overburdening of county resources (road maintenance and public law enforcement) and of course public safety have all previously been cited as the results of the reorientation of the community aided and abetted by the CDOT OHV Pilot Program. The weakness and leadership failures of our elected officials in the town and county has also been related to you.

Since many of these most detrimental impacts carry with them an element of anecdotal experience and or the impacts are in some cases longer term in identification, this writing will solely focus on one issue that is simply irrefutable and that is SAFETY.

Attached is a comprehensive list of private, quasi government and government entities that uniformly speak to the most negative aspects of allowing OHV's on hard surfaced public roadways. My guess is you have seen this list previously however the impact that these safety issues should have had on the decision simply amazes me. As a public agency, there just cannot be ANY ignoring of overwhelming safety issues emanating from nearly all "corners" including the manufacturers of said vehicles.

I have been an aircraft pilot for nearly 40 years and I can attest to the fact that in aviation (and governmental aviation safety enforcement) there has never been an acceptance and or ignoring of life impacting safety issues (particularly when identified by the equipment manufacturers themselves). I would strongly recommend and refer even a cursory review of the underlying goals and orientations of the FAA and the NTSB. Under NO CIRCUMSTANCES are public safety issues superseded by a sellout to a relatively small number of directly impacted businesses. Such a sellout of public safety would and is unconscionable.

Why would the CDOT even consider ignoring public safety and a host of safety data because a small county and its "leadership" simply wants to assist certain businesses. Taking on such action in the face of overwhelming safety issues in my opinion is a huge deviation from the trust and faith that the public has granted but also opens the town/county and CDOT to liability in the event of a devastating accident or series of accidents. The safety evidence is overwhelming...and is far from anecdotal or emotional.

Thank you for the ability to express my opinions and for taking the additional time to thoroughly evaluate the real circumstances regarding this critical decision.

Most respectfully,
Richard [redacted]

ATTACHMENT:

- **Americans for Responsible Recreational Access (ARRA)** (Safety group)
- **Arctic Cat** (OHV Manufacturer)
- **ATV Safety Institute (ATVSI)** (Safety group)
- **Can-Am** (OHV Manufacturer)
- **CFMoto** (OHV Manufacturer)
- **Coleman Power Sports** (OHV Manufacturer)
- **EGL Moto** (OHV Manufacturer)
- **HISUN Motors** (OHV Manufacturer)
- **Honda** (OHV Manufacturer)
- **Jingling ATV** (OHV Manufacturer)
- **Kawasaki** (OHV Manufacturer)
- **KYMCO** (OHV Manufacturer)
- **MSF Dirt Bike School** (Safety group)
- **National Off-Highway Vehicle Conservation Council (NOHVCC)**
- **Peace Sports** (OHV Manufacturer)
- **Polaris** (OHV Manufacturer)
- **Recreational Off-Highway Vehicle Association (ROHVA)** (Advocacy group)
- **Ricky Power Sports** (OHV Manufacturer)
- **Sunlight** (OHV Manufacturer)
- **Suzuki** (OHV Manufacturer)
- **Textron Off-Road** (OHV Manufacturer)
- **Yamaha** (OHV Manufacturer)
- **Yamazuki** (OHV Manufacturer)

Sent from my iPad

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

Hwy 149 Pilot Program/Updated Sales Tax #'s

1 message

David [redacted] Wed, Mar 10, 2021 at 1:11 PM
To: Herman Stockinger <herman.stockinger@state.co.us>, Jennifer Uebelher <jennifer.uebelher@state.co.us>, Eula Adams

[redacted]

Dear Officials: You are entitled to facts. We now have the town and county sales tax data for June, 2020 necessary to accurately compare the OHV/Tourist months of June-September sales tax data for 2020 with 2018 and 2019.

The gross 2020 sales tax totals include a sales tax category not collected before October of 2019: tax from sales made over the internet (such as by Amazon). A calculation is required, using a percentage supplied by the county, to remove those taxes from the 2020 totals in order to make a valid comparison with prior years. It appears the town and county did not do this.

The state and county label sales made locally to people on the ground in the town/county at the time of the sale as “physical” sales. Sales made over the internet by outside vendors and shipped into the town/county are labeled “non-physical” sales.

Following are the “physical” sales tax revenues for the OHV/Tourist months of June-September in 2018, 2019 and 2020, and the comparable percentage differences, year to year:

Town: 2018: $258,090.65;

2019: $272,952.76, a 5.87% increase over 2018;

2020: $273,251.09, a 5.87% increase over 2018 and a .0011% increase over 2019.

County: 2018: $188,344.85;

2019: $194,129.56, a 3.07% increase over 2018;

2020: $143,637.80, a 23.74% **decrease** from 2018 and a 26.01% **decrease** from 2019.

Comparing only the years used in the application, 2018 and 2020, the combined town and county total “physical”, sales tax revenue for the OHV/Tourist months of June-September reflects the following:

Combined Town & County: 2018: $446,435.50

2020: $416.888.89, a 6.62% **decrease**, comparing only the two years used in the application.

Taking another step, combined town and county 2019 “physical”, sales tax revenue increased 4.67% over 2018, **BUT decreased** 10.7% in 2020 from 2019.

The sales tax data do not support a claim that the Pilot Program has been an economic boost for the town and county.

I respectfully submit that while you may have other reasons that lead you to support the Pilot Program, increased economic activity cannot be a justification.

I will be happy to provide the data supplied by the county and my calculations if you wish. And, I welcome anyone to point out any errors in my calculations and conclusions.

Thank you for your consideration.

David [redacted]

[redacted]

STATE OF COLORADO

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>

Hwy. 149 Pilot Program Comments

3 messages

David [redacted] Wed, Mar 10, 2021 at 3:04 PM
To: Jennifer Uebelher <jennifer.uebelher@state.co.us>

Dear Ms. Uebelher: Are emails and other communications sent to the Commission about the Hwy. 149 Pilot Program posted where I can access them on line?

Thank you,

David [redacted]

Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us> Wed, Mar 10, 2021 at 3:21 PM
To: David [redacted]

Hello Mr. [redacted]-

The links to the comments provided last month were attached to the presentation materials. You can access them on our website until I change the materials over for March and I have included the links here:

Hinsdale County comments: https://hinsdalecounty.colorado.gov/off-highway-vehicles

CDOT comments: https://www.codot.gov/about/transportation-commission/documents/2021-supporting-documents-1/february-2021/linked-docs/ohv-comments-compiled-excluding-hinsdale-co.pdf

Late comments (prior to meeting but after Feb. Materials went out): https://www.codot.gov/about/transportation-commission/documents/2021-supporting-documents-1/february-2021/linked-docs/ohv-comments-received-after-packet-creation/view

I am in the process of uploading all of the documents to the website for February and am compiling the packet for March which will have a link to anything received after the February meeting through 3pm today when I began the packet

compiling process. The March materials will be made available no later than 24 hours prior to the commission workshops and will be able to be accessed here: https://www.codot.gov/about/transportation-commission/meeting-agenda.html

Kind Regards,

Jennifer Uebelher
Transportation Commission Liaison
Office of Policy and Government Relations

P 303.757.9025
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COLORADO
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[redacted]state.co.us>

Thank you!

David [redacted]

[redacted]

From: Uebelher - CDOT, Jennifer <jennifer.uebelher@state.co.us>
Sent: Wednesday, March 10, 2021 4:21 PM
To: David [redacted]
Subject: Re: Hwy. 149 Pilot Program Comments

Hello Mr. [redacted]

The links to the comments provided last month were attached to the presentation materials. You can access them on our website until I change the materials over for March and I have included the links here:

Hinsdale County comments: https://hinsdalecounty.colorado.gov/off-highway-vehicles

CDOT comments: https://www.codot.gov/about/transportation-commission/documents/2021-supporting-documents-1/february-2021/linked-docs/ohv-comments-compiled-excluding-hinsdale-co.pdf

Late comments (prior to meeting but after Feb. Materials went out): https://www.codot.gov/about/transportation-commission/documents/2021-supporting-documents-1/february-2021/linked-docs/ohv-comments-received-after-packet-creation/view

I am in the process of uploading all of the documents to the website for February and am compiling the packet for March which will have a link to anything received after the February meeting through 3pm today when I began the packet compiling process. The March materials will be made available no later than 24 hours prior to the commission workshops and will be able to be accessed here: https://www.codot.gov/about/transportation-commission/meeting-agenda.html

Kind Regards,

Jennifer Uebelher

Transportation Commission Liaison

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