

SAFETY EVALUATION OF STATEWIDE OFF-HIGHWAY VEHICLE USE IN ALASKA

Crash Review, Media Discourse Analysis, and Field Data Collection

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PROBLEM IDENTIFICATION



Salisbury Street, 1960

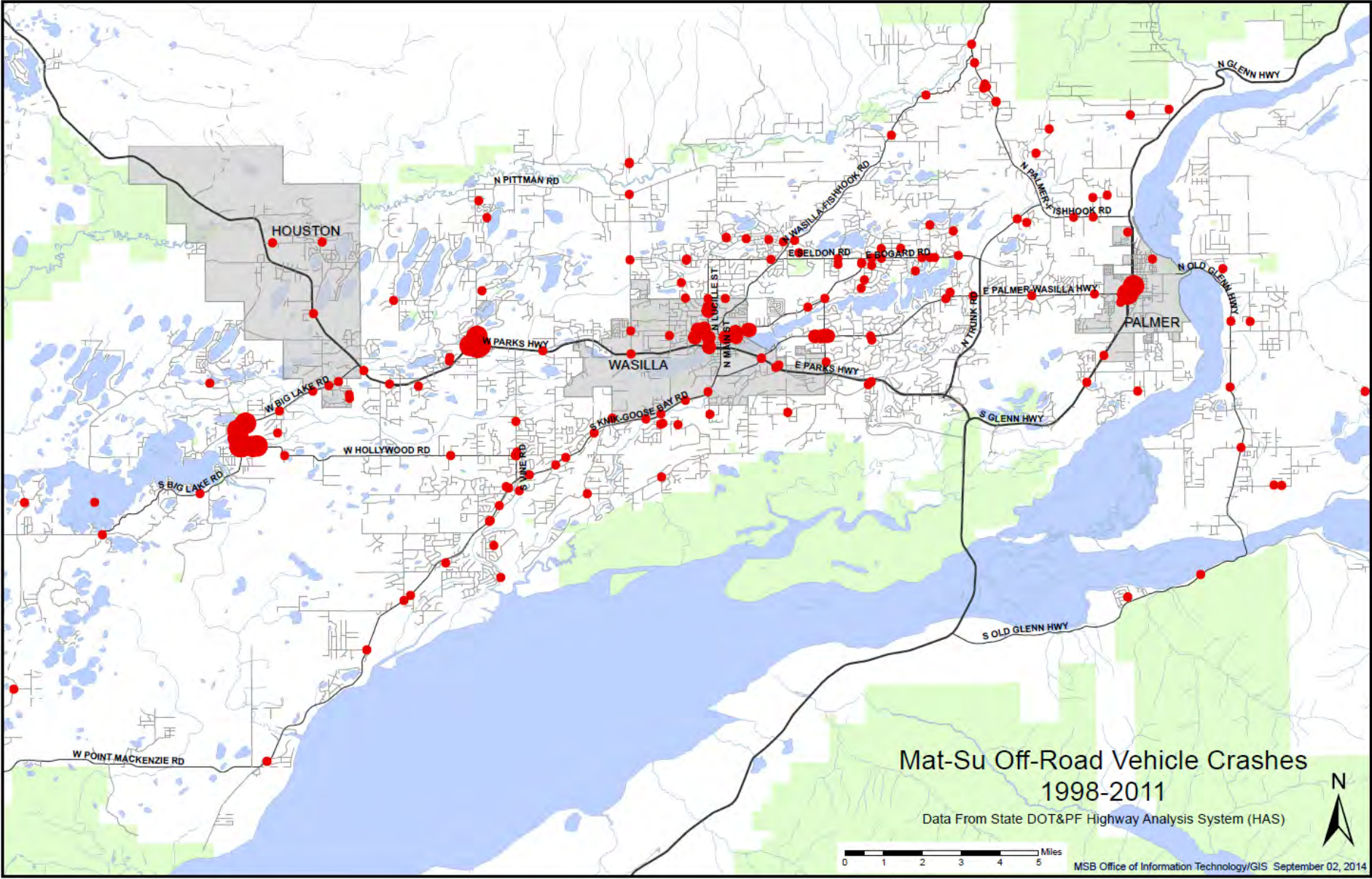
Robert Blomfield

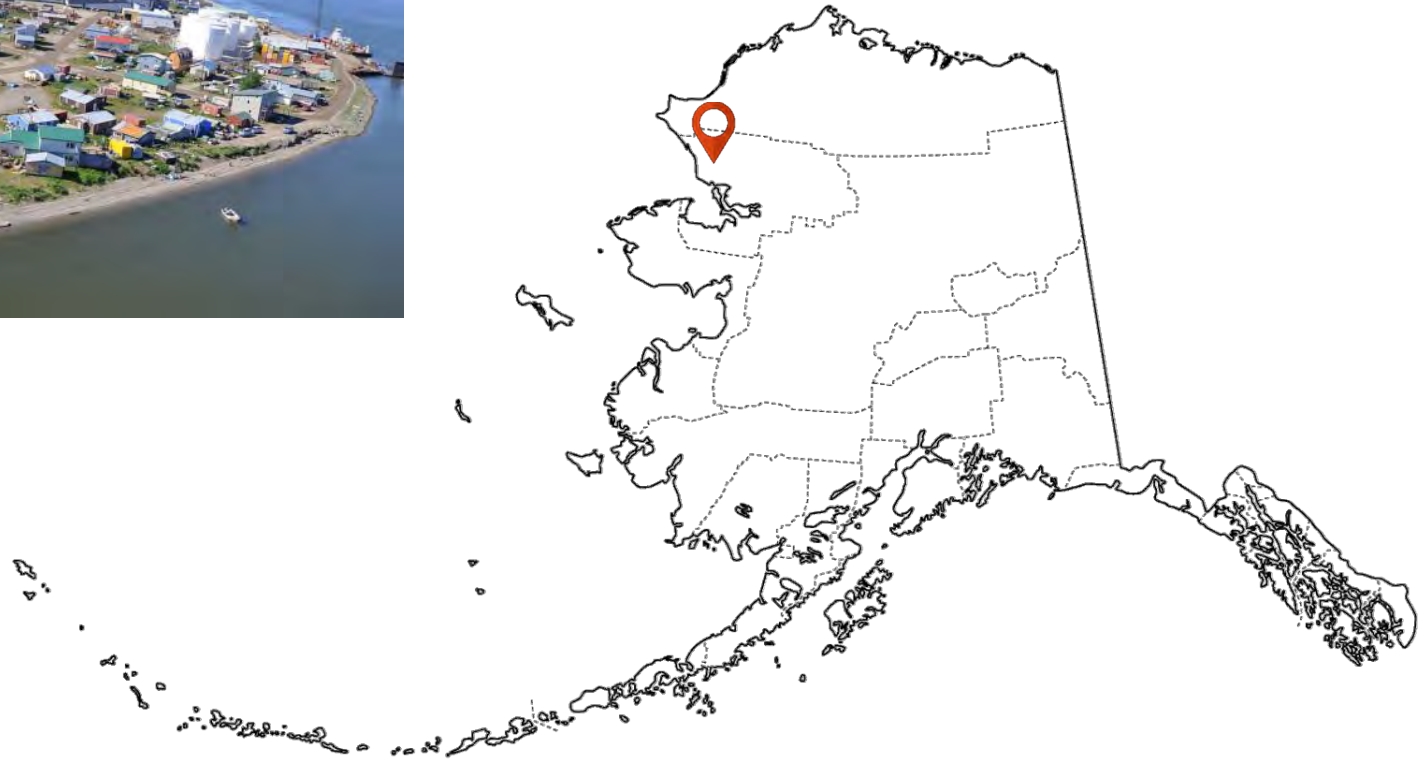
theguardian.com



- ☐ 0 veh
- ☒ 1 veh
- ☐ 2 veh
- ☐ 3+ veh





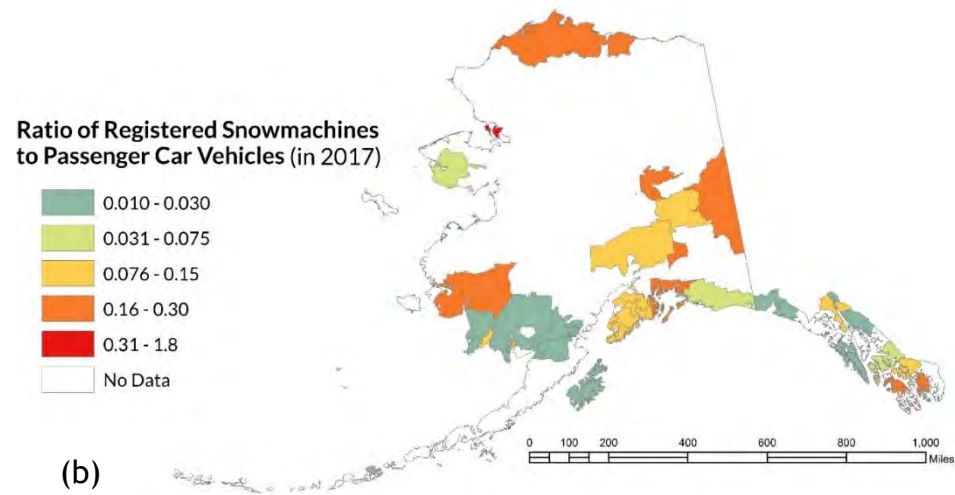
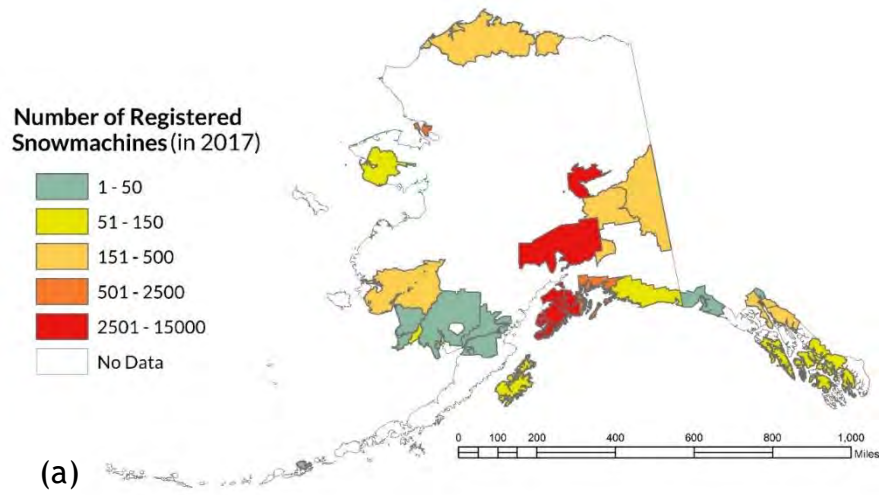


Kotzebue, AK

Village Population = 3,300 (2013)

70% Native Alaskan (Iñupiat Eskimo)

25% of all traffic crashes involved ATVs/snowmachines;
21 crashes in 2013-2017 involved speeding ATVs on village streets.



Registered snowmachines (a) and ratio of registered snowmachines to passenger car vehicles in 2017 (b) in Alaska

Wasilla stops short of ATV ban in approving new rules

Author: [Zaz Hollander](#) Updated: September 28, 2016 Published April 28, 2015

WASILLA -- All-terrain vehicles are still welcome within Wasilla city limits -- provided riders park them by 10 p.m., avoid danger or destruction, and carry a valid driver's license.

That's a paradigm shift in this still-growing city of about 9,000 where people on snowmachines and four-wheelers were once accustomed to free rein but now trigger complaints about riders speeding, churning up fresh grass or spitting up bike path gravel.

The new ATV regulations, approved by the Wasilla City Council Monday night in a 5-1 vote, represent the city's way of avoiding a total ban.

Dozens of agitated riders came out for public hearings last year after the council floated the idea of prohibiting ATVs altogether. The owner of an ATV rental business near downtown Wasilla said he gathered thousands of signatures opposing a ban, though it wasn't clear how many came from city residents.

None of those people attended Monday night's meeting, which drew a small crowd only because a new downtown overlay district was on the agenda.

The new regulations are based on recommendations of a six-member task force that met four times between January and March after the council put off a decision on a ban. But officials say they still

Wasilla eyes ATV ban in city limits

Jun 28, 2014 23






**Stop the Wasilla
ATV ban**
@keepwasillaatv

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Posts

 **Stop the Wasilla ATV ban**
August 1, 2018 · 🌐

This is the type of behavior that gets people riled up and wanting to ban our Alaskan toys. Please Ride with respect. Wasilla decided to try and ban ATVs because somebody was being inconsiderate on a quad at wonderland park during the governors picnic and somebody complained to somebody that could do something about it.

Send Message

Related pages

-  **Perkup Espresso LLC (2200 E Pa...**
Coffee Shop
-  **Valley Rally Raceway**
Stadium, Arena & Sports Venue
-  **Mat-Su Vintage Snowmachine R...**
Nonprofit Organization
-  **Diversified Tire**
Tire Dealer & Repair Shop
-  **Lone Pine Fabrication**
Automotive, Aircraft & Boat



A man drives an ATV along a city street in downtown Wasilla recently. The ban of ATV use in Wasilla has become a controversial subject.

HEATHER A. RESZ/Frontiersman



Figure 24. All-Terrain Vehicles
Hospitalizations (Three-Year Average and Goal)



Source: Alaska Trauma Registry.

Figure 25. Snow Machines
Hospitalizations (Three-Year Average and Goal)



Source: Alaska Trauma Registry.



Strategy 1: Implement education/awareness practices to enhance off-highway vehicle safety.



ACTION 1.1

Conduct public education and outreach to raise awareness of OHV safety issues

ATVs and snow machines are common forms of transportation, especially in rural Alaska where quite often they are the main or only modes of transportation. These OHVs are often used as work vehicles and vehicles that provide general mobility. While most ATV and snow machine travel occurs off the road, these vehicles also travel within the road rights-of-way (ROW). Snow machines and ATVs are allowed within the State Road ROW, but not on the road surface itself. Data collected by state agencies show that

crashes and injuries are occurring within and outside the highway ROW. The purposes of this strategy are to educate Alaskans about the dangers of OHV use and the importance of safety while using these vehicles.

Objective

Increase safety awareness by educating the public on the dangers of OHVs through public outreach initiatives.

Lead Agency

Alaska Injury Prevention Center

Strategy 2: Implement evaluation programs to enhance off-highway vehicle safety.



ACTION 2.1

Establish a multiagency task force to address OHV safety issues

Background

No one state or public agency has purview over off-highway vehicle (OHV) use or training in Alaska. Crashes involving ATVs and snow machines were identified as a significant safety issue for Alaska during the 2003 Safety-Conscious Planning Summit. The purpose of the multiagency task force would be to further examine this problem and the data available related to this problem; identify potential solutions or strategies that can be implemented at the

local level; study what has been done and what has worked in other states and communities that have significant OHV use; implement effective strategies; and raise the overall visibility of this issue with the public, local governments, and the legislature.

Objective

Greater collaboration among agencies and organizations (public and private) with an interest in OHV use in Alaska.

Lead Agency

Alaska Injury Prevention Center

*“A number of users of Alaska’s highway system are those on vehicles traditionally considered offhighway vehicles (OHVs): all-terrain vehicles (ATVs) and snow machines. Many Alaskans rely on ATVs and snow machines for work, basic transportation, and recreation. While OHVs are not being studied as an emphasis area, this transportation mode has Alaska-specific uses and crash patterns and the users of these vehicles **should therefore be considered as part of the Special Users emphasis area.**”*



Figure 2.16 Bicyclist Serious Injuries, 2011-2016

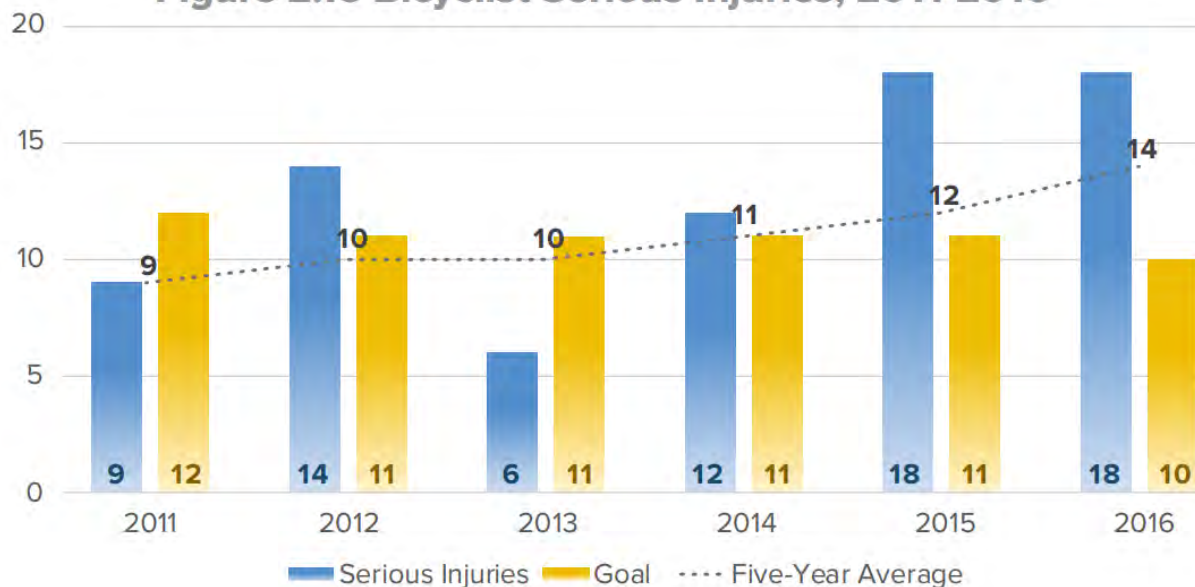
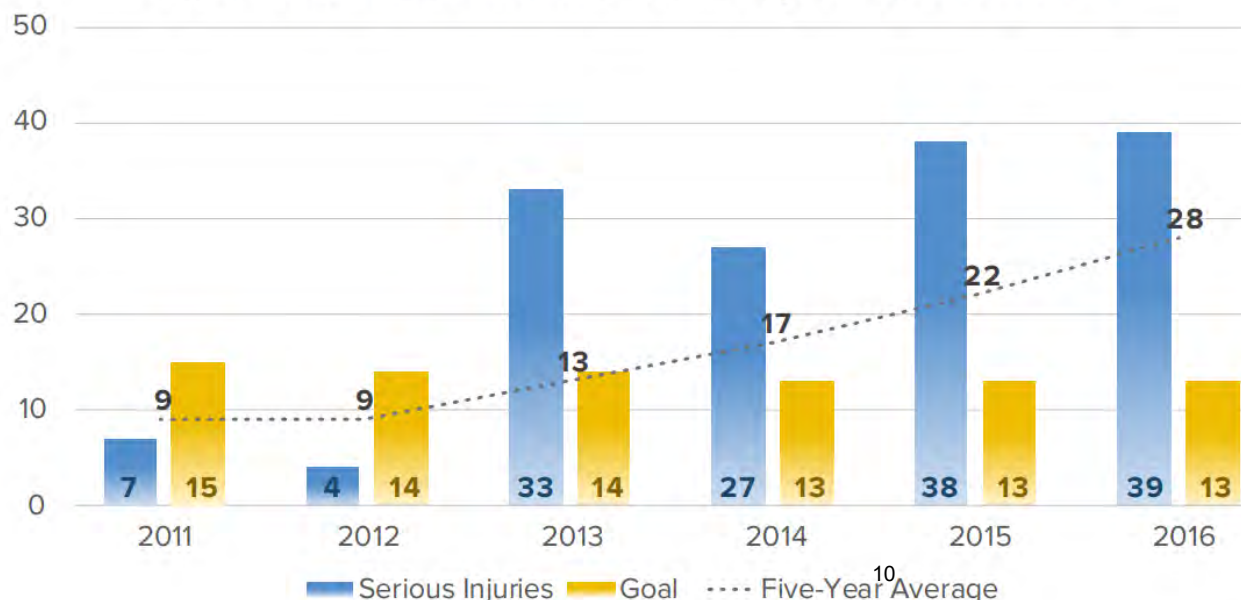


Figure 2.18 Pedestrian Serious Injuries, 2011-2016



2018-2022 STRATEGIC HIGHWAY SAFETY PLAN

Figure 2.21 Off-Road Vehicle Fatalities, 2011-2017

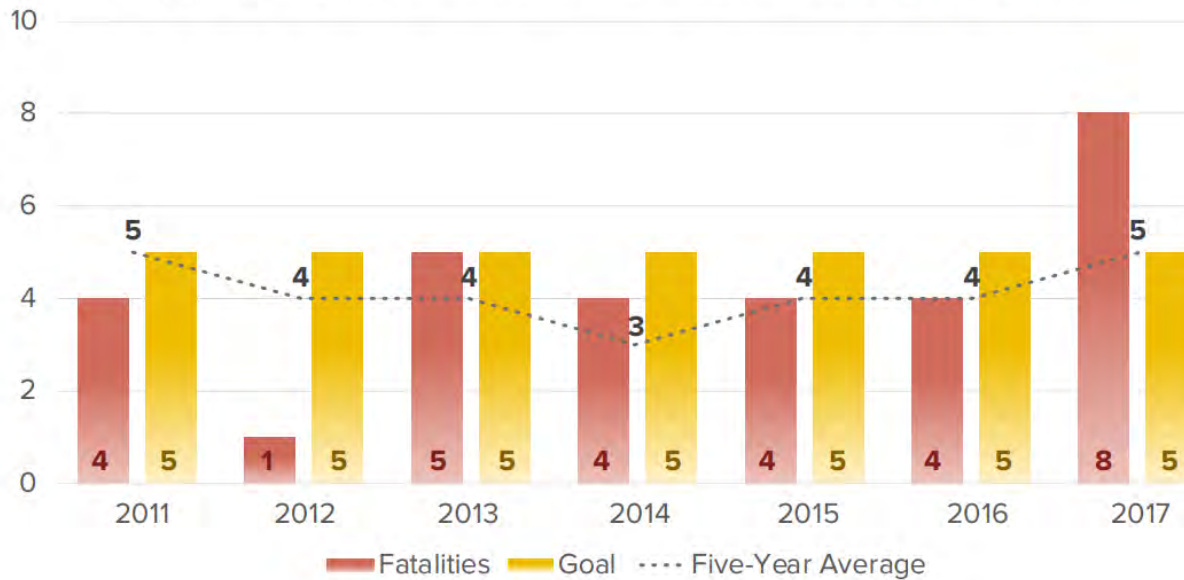
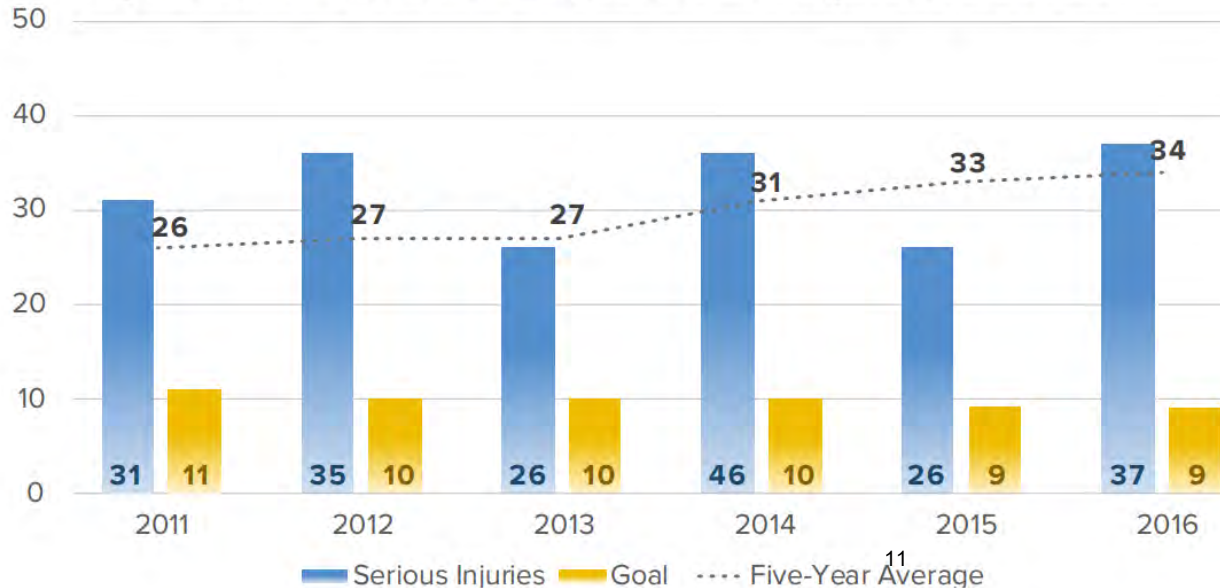


Figure 2.22 Off-Road Vehicle Serious Injuries, 2011-2016



2018-2022 STRATEGIC HIGHWAY SAFETY PLAN

Informal OHV networks that are (a) proximal, (b) adjacent and (c) coincident with the road



(a)



(b)



(c)







February 25th, 2021 | Danby St. and Wembley Ave.



February 25th, 2021 | CHS Rd. and Steese Hwy Roundabouts







June 8th, 2020 | Central Ave. and Aurora Dr.



February 8th, 2020 | College Rd. and Deborah Ave.



February 18th, 2021 | Chena Ridge Rd. and Chena Pump Rd.



February 16th, 2021 | College Rd. and University Ave.



December 8th, 2020 | University Ave. and Rewak²² Dr.



December 8th, 2020 | Airport Way and Sportsmans Way





July 7th, 2018 | Petersville Rd.



Deaths of ATV riders on public roads have increased dramatically since 1982, the first year they were explicitly identified in FARS.

Seventy-three percent of fatally injured ATV riders were killed in crashes involving no other vehicles in 2019, compared with 44 percent of passenger vehicle occupants killed in crashes.

Among ATV riders killed in single-vehicle crashes in 2019, 66 percent involved the ATV rolling over during the crash. This was comparable with SUVs and large trucks, but higher than cars (41 percent).

In 2019, 46 percent of fatally injured ATV drivers on public roads had BACs at or above 0.08 percent. Impairment was highest at 72 percent among fatally injured ATV drivers ages 40-49.

Seventy-seven percent of ATV riders killed on public roads in 2019 were on rural roads. Of those, 90 percent were on minor roads.



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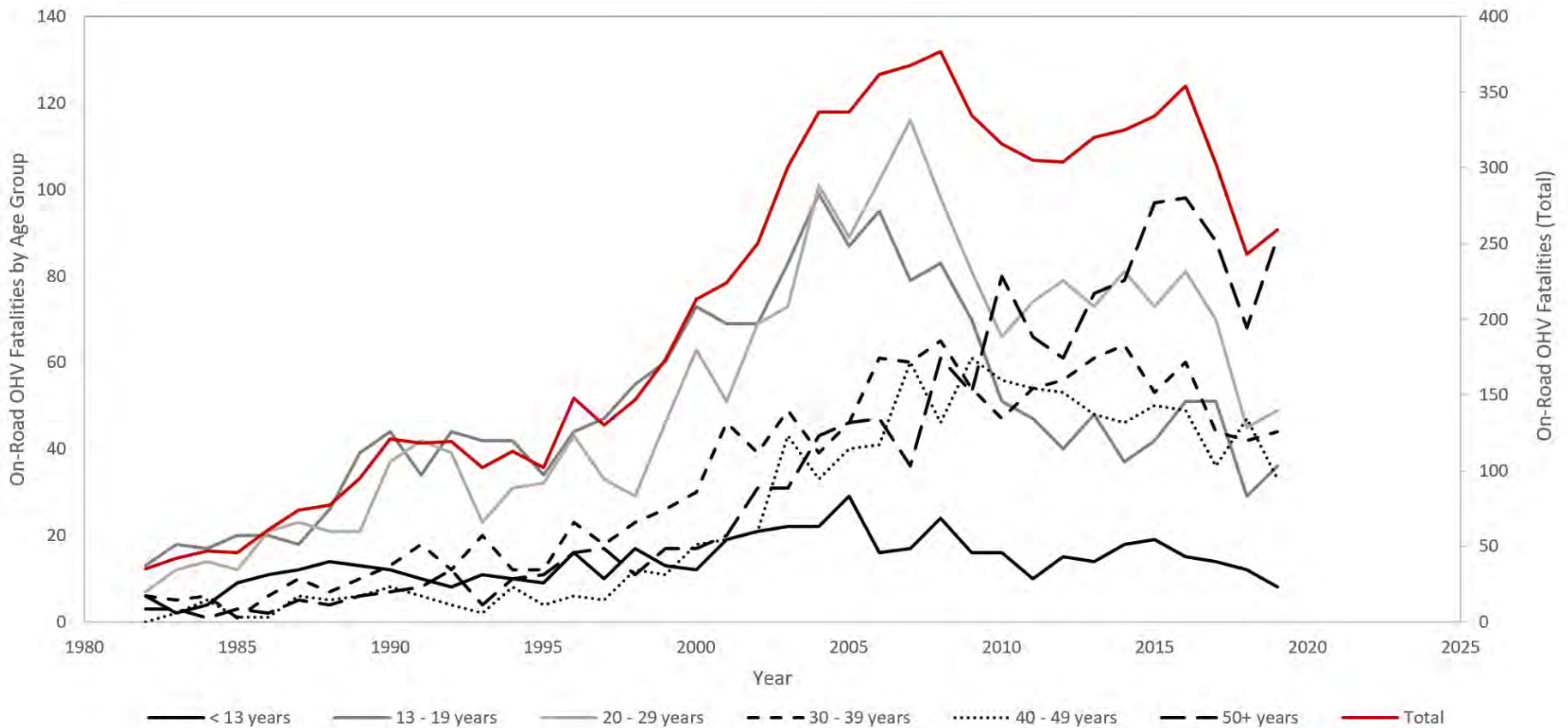
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OHV rider fatalities on public roads by age (1982 – 2019)



Data Source: FARS

OBJECTIVE

The objective was to develop a holistic framework that considers what data currently exists, what data is needed, and what the status of conflict and safety concerns exist for OHVs on and near to roads, highways, and other transportation infrastructure. This research addresses the need for both safety and travel demand data in rural areas where the frequency of off-highway roadside users are generally considered to be negligible, un-reported, or non-existent. The results and deliverables of this research contribute significant knowledge for this specific special user group.

APPROACH

APPROACH PT. 1

Review and summarize relevant state, borough, and city-level policies regarding use of OHVs and snowmobiles on roads in Alaska.

Alaska State Policies on OHV Use on Public Roads and ROW

State	Policy	Allowed to cross state roads?	Allowed on state roads?	Allowed on city roads?	User Requirements	Vehicle Requirements	Speed Limit	Time Restrictions	Other Notes
Alaska	Yes	Yes	No*	No*	AS 28.39 and 13 AAC 02.430 through 13 AAC 02.455	13 AAC 04.400 through 13 AAC 04.420	N/A	N/A	All laws pertaining to snowmachines and ATVs at the state level are included in the Alaska State Legislature (2017 - 2018)

Alaska Borough Policies on OHV Use on Public Roads and ROW

Borough	Policy	Allowed to cross state roads?	Allowed on state roads?	Allowed on city roads?	User Requirements	Vehicle Requirements	Speed Limit	Time Restrictions	Other Notes	
Aleutians East Borough	No	Default to State Provisions								
Anchorage	Yes	Yes	No*	No*	Must wear helmet meeting Snell Foundation requirements with proof attached, must have license or licensed individual riding on same machine	Red light only 500'	N/A	Shall not operate from 10 PM to 7 AM	Operations on private property requires express consent of owner on paper. Can't operate within 500' of ice rink, skiing establishment, etc. Can't operate on lands not owned if destruction of soil or undergrowth is likely.	
Bristol Bay Borough	No	Default to State Provisions								
Denali Borough	No	Default to State Provisions								
Fairbanks North Star Borough	No	Default to State Provisions								
Haines Borough	Yes	Yes	No*	No*	16 years or older. Valid driver's license. Proof of insurance. Hand signals when turning.	Default to State Provisions	<25 mph on borough streets	Shall not operate from 9 PM to 9 AM at Tlingit Park or Seward parade grounds		
Juneau	Yes	No	No	No	N/A					
Kenai Peninsula Borough	No	Default to State Provisions								
Ketchikan Gateway Borough	No	Default to State Provisions								
Kodiak Island Borough	No	Default to State Provisions								All road surfaces are gravel
Lake and Peninsula Borough	No	Default to State Provisions								
Matanuska-Susitna Borough	No	Default to State Provisions								
North Slope Borough	No	Default to State Provisions								
Northwest Arctic Borough	No	Default to State Provisions								
Petersburg Borough	No	Default to State Provisions								Local provisions submitted for approval in October 2016
Sitka	No	Default to State Provisions								
Skagway	Yes	Yes	No*	Yes	ATV: if under 16 years old requires parent/guardin, if under 18 requires helmet, see city ordinances for designated and restricted steets of use. Snowmachines: requires driver license, travel in single file on streets and alleys, may only tow passengers via a sled and skid, cannot operate on schoolgrounds or municipal streets designated by borough assembly	ATV: requires noise suppression muffler, liability insurance, trailers during daylight hours only	ATV: <15 mph, except on Yakutania Point and Pat Moore Bridges <5 mph Snowmachine: <20 mph in municipality		Must travel single file along street or alley	
Wrangell	Yes**	Yes	No*	Yes	Default to State Provisions	Snowmobile: Borough registration valid for 3 years. Forward light that reveals at least to 100'.	Default to State Provisions		ROW permitted for use changes based on decision of council, consult website and local authorities for currently approved areas	
Yakutat	Yes	Yes	No*	Yes	Requires valid driver's license, approved safety helmets worn by operators and passengers, must be 16 or older, if under 16 valid license required.	Lights must be on at all times of operation,mufflers and tail pipes shall be sealed and operational	<15 mph	can't 10 PM to 6 AM		

* Special provision exists

** Policy on snowmachines only; ATVs categorized as snowmachines because of low-pressure tires

Note: compiled by Gabriel Fulton, MS Civil Engineering 2019, University of Alaska Fairbanks

Alaska City Policies on OHV Use on Public Roads and ROW

City	Census Area	Policy	Allowed to cross state roads?	Allowed on state roads?	Allowed on city roads?	User Requirements	Vehicle Requirements	Speed Limit	Time Restrictions	Other Notes	
Unalaska	Aleutians West	No	Default to State Provisions								
Bethel	Bethel Census Area	Yes	Yes	No*	Yes	ALL: If under 18 requires a driver's license or be within 100' of 21 year old who is supervising and has a valid driver's license, minors must wear helmets and travel shortest reasonable distance along city roads ATV: liability insurance, proof of insurance, valid driver's license, may not pass other moving vehicles or weave in traffic Snowmachine: proof of registration displayed, liability insurance, proof of insurance, may not pass other moving vehicles or weave	ATV: must be under 1500 pounds	Low-speed vehicle: <25 mph ATV: <15 mph city road, <5 mph parking lot or congested with pedestrians Snowmachines: <15 mph on city road, <5 mph parking lot or congested with pedestrians	N/A	Definitions: ATV = 3 or more low-pressure tires, Low-speed vehicle = motor vehicle with 4 wheels that reaches minimum speed of 20 mph, Snow machine = motorized vehicle under 1300 lbs propelled by a track system over snow/ice	
Dillingham	Dillingham	Yes	Yes	No*	Yes	OHV/ATV: 14 or older and possess a valid driver's license, 18 or younger requires helmet, cannot be operated within business district (see extra), allowed on ROW of all roads as long as 3' or more from edge of shoulder, operation after dark requires same direction of roadway motor traffic Snowmobiles: Show proficiency of knowledge of rules of the road, under 18 must wear helmet, after dark operation remanded to right side of a designated snowmobile route and in same direction as roadway traffic, cannot be operated	OHV/ATV: Cannot be modified to make more noise than when manufactured Snowmobile: headlight illuminated at all times, visibly display valid state snowmobile registration	<20 mph	OTV/ATV: prohibited to operate between 12 AM and 5 AM from Sept 1st until June 1st		
Haines	Haines	Yes	Yes	No*	Yes	16 years or older, valid driver's license, proof of insurance, must display hand signals while making turns if machine not equipped with turn signals	Equipment originally installed shall be in good working order, lighted headlight and taillight at all times	<25 mph	no snow machine or ATV use within confines of Tlingit Park or the Fort Seward parade grounds between 9		
Homer	Kenai Peninsula	Yes	Yes	No*	No*	Default to State Provisions				Beach is open for atv use and travel	
Hoonah	Hoonah-Angoon	Yes	Yes	No*	Yes	Must have driver's license, be 16 years or older, vehicle must obtain permit, must wear protective head gear	Protective shield over all moving parts, reflectors on sides of cowling	N/A	Operation allowed between 6 AM and 9 PM except Fridays and Saturdays where they may be		
Hooper Bay	Kusilvak	Yes	Yes	No*	Yes	Default to State Provisions					
Nome	Nome	Yes	Yes	No*	Yes	If under 16 must be under direct supervision of adult, valid drivers license, must drive on far right of roadway and on shoulder if available, must wear helmet		<20 mph	N/A	If an alternative route is available that will not violate regulations it must be taken; Local police implied they do not enforce on local roads.	
Craig	Prince of Wales-Hyder	No	Default to State Provisions								
Delta Junction	Southeast Fairbanks	No	Default to State Provisions								State troopers said ATV/snowmachine use is predominant; enforcement is lax unless user is blatantly speeding
Valdez	Valdez-Cordova	Yes**	Yes	No*	Yes	Motor vehicle operator's license, hard protective head gear	Default to State Provisions	N/A	Operation allowed between 6 AM and 11 PM, except Friday and Saturday allowed until midnight	No policy on ATV; In or within 100' of ski area or within 100' of ice rinks	
Wasilla	Matanuska-Susitna	Yes	Yes	No*	No*	Valid driver's license, carry proof of registration, liability insurance, carry proof of insurance, wear DOT approved crash helmets, 16 or older unless supervised by adult	Red light mounted on rear visible at 500',	10 mph or less on right of way, 5 mph in congested areas or parking lots	Operation allowed 8 AM to 10 PM within city limits	Allowed on right of way of all roads, not allowed within 20' of railroad track unless crossing	
Fort Yukon	Yukon-Koyukuk	Yes**	Yes	No*	Yes	City permit & 14 or older	Default to State Provisions	<15 mph	N/A	Local police indicated that snowmachine regulations apply to ATVs	

* Special provision exists

** Policy on snowmachines only; ATVs categorized as snowmachines because of low-pressure tires

Note: compiled by Gabriel Fulton, MS Civil Engineering 2019, University of Alaska Fairbanks

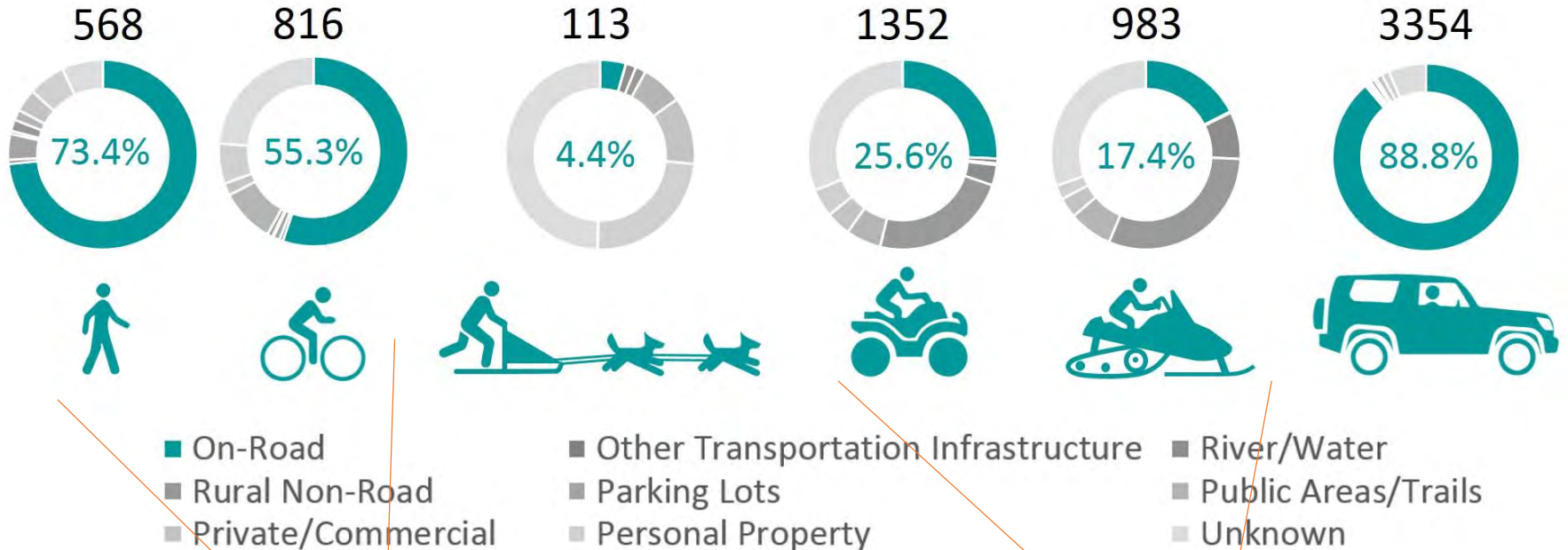
APPROACH PT. 2

Review crash data, specifically the injury data published by the Alaska eHealth network to supplement previous analysis of the Alaska State Motor Vehicle Crash Database and the Alaska Vital Statistics Trauma Registry with consideration of:

- a. Crashes occurring on/near public roads and public facilities (e.g., pedestrian or multi-use)
- b. Crashes involving ATVs/OHVs occurring on the traveled way
- c. Crashes involving ATVs/OHVs occurring off the traveled way but within ROW of the highway corridor; and
- d. Crashes resulting from crossing a public facility to get to a non-traveled way trail versus crashes resulting from using the traveled way.

ALASKA TRAUMA REGISTRY TOTALS 2009 - 2014

with percent of records occurring on roads or within right-of-way

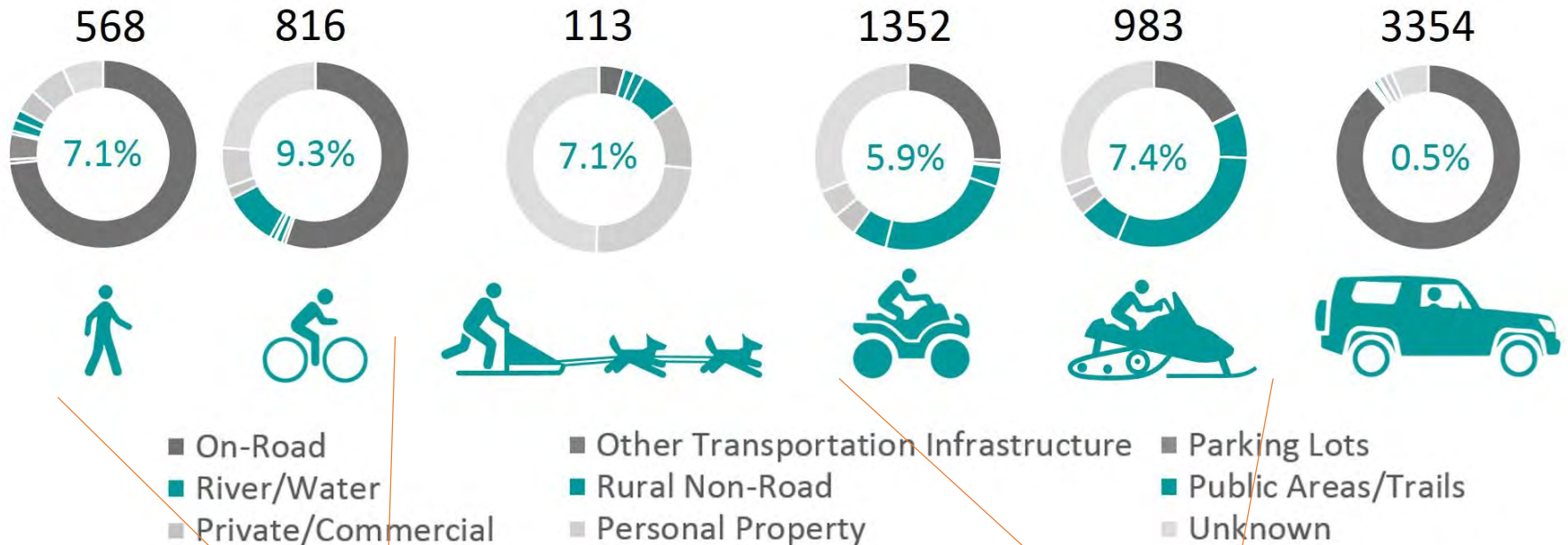


$$(568 \times 0.734) + (816 \times 0.553) = 869$$

$$(1352 \times 0.256) + (983 \times 0.174) = 518$$

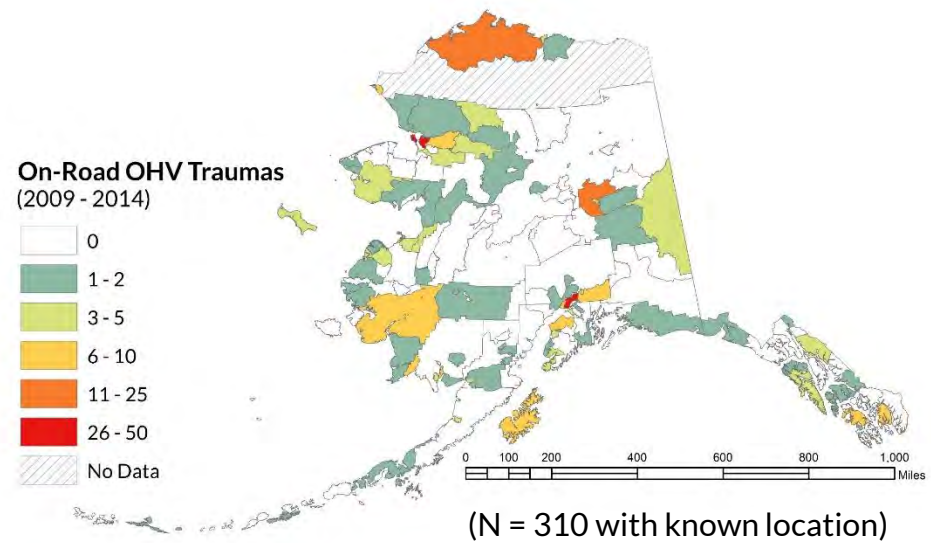
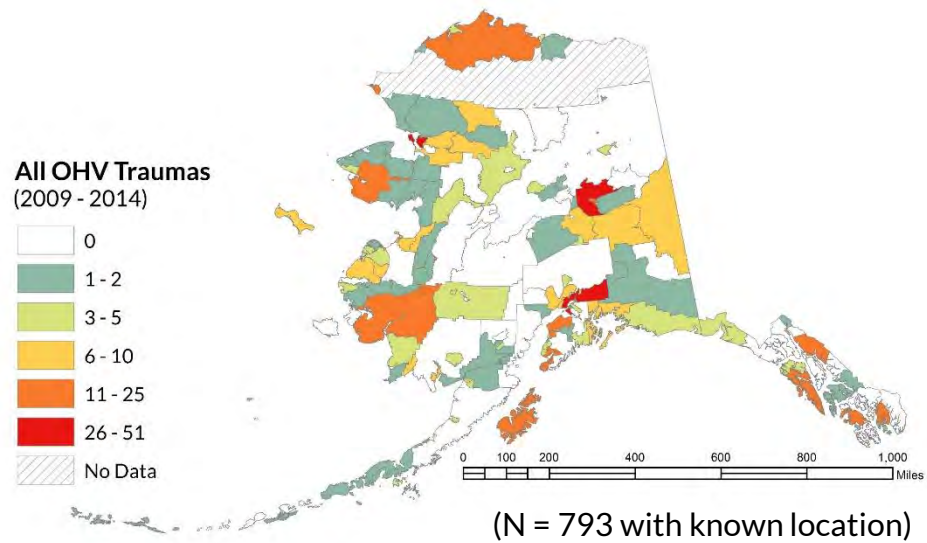
ALASKA TRAUMA REGISTRY TOTALS 2009 - 2014

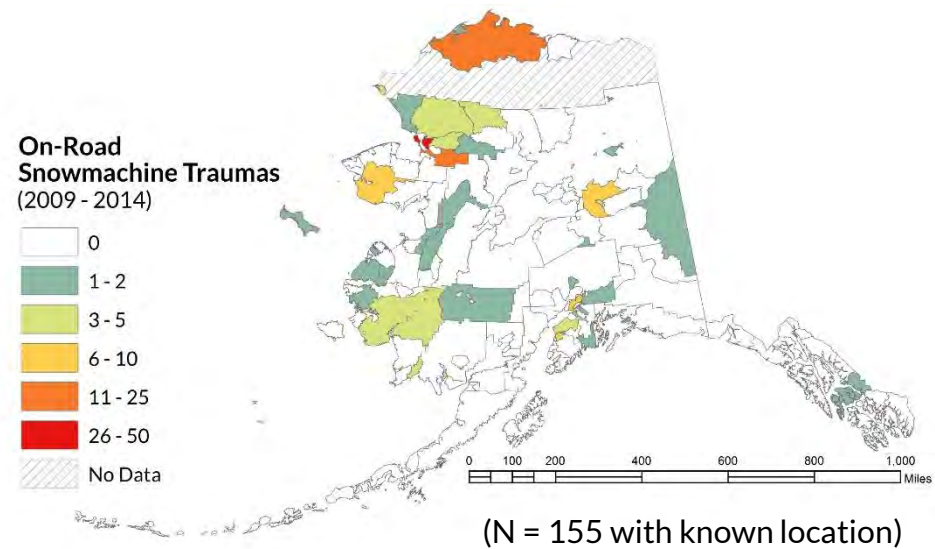
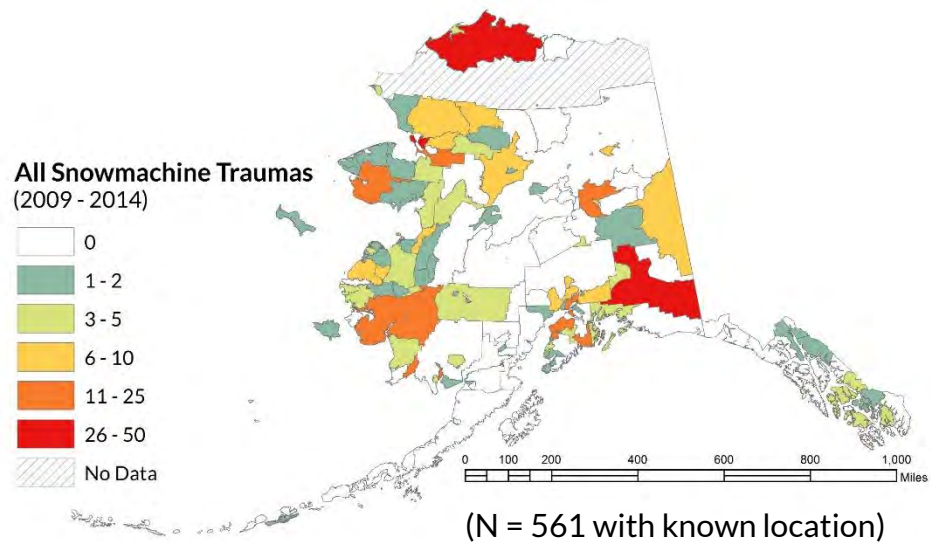
with percent of records occurring on river/water, wilderness, or in public areas/trails



$$(568 \times 0.071) + (816 \times 0.093) = 117$$

$$(1352 \times 0.256) + (983 \times 0.174) = 153$$





OHV Crash Summary Statistics (2013 – 2017)

Crash Severity	N	%	Junction Type	N	%
No Apparent Injury	44	19.5	Non-Junction	116	51.3
Possible Injury	17	7.5	Shared-Use Path or Trail	9	4.0
Suspected Minor Injury	70	31.0	Median, Shoulder or Roadside	0	0.0
Suspected Serious Injury	66	29.2	Intersection-Related	11	4.9
Fatal Injury (Killed)	24	10.6	Through Roadway	3	1.3
<i>Null value</i>	5	2.2	Driveway Access Related	5	2.2
			Intersection	65	28.8
			Driveway Access	4	1.8
			<i>Unknown</i>	7	3.1

First Harmful Event	N	%	Alcohol Suspected	N	%
Motor Vehicle In-Transport	82	36.3	Yes	51	22.6
Parked Motor Vehicle	6	2.7	No	132	58.4
Overturn/Rollover	53	23.5	<i>Unknown</i>	24	10.6
Pedestrian	10	4.4	<i>Null Value</i>	19	8.4
Pedalcycle	5	2.2			
Live Animal	2	0.9			
Snow Bank	6	2.7			
Curb	1	0.4			
<i>Not all events included here</i>					

from DMV Crash Records

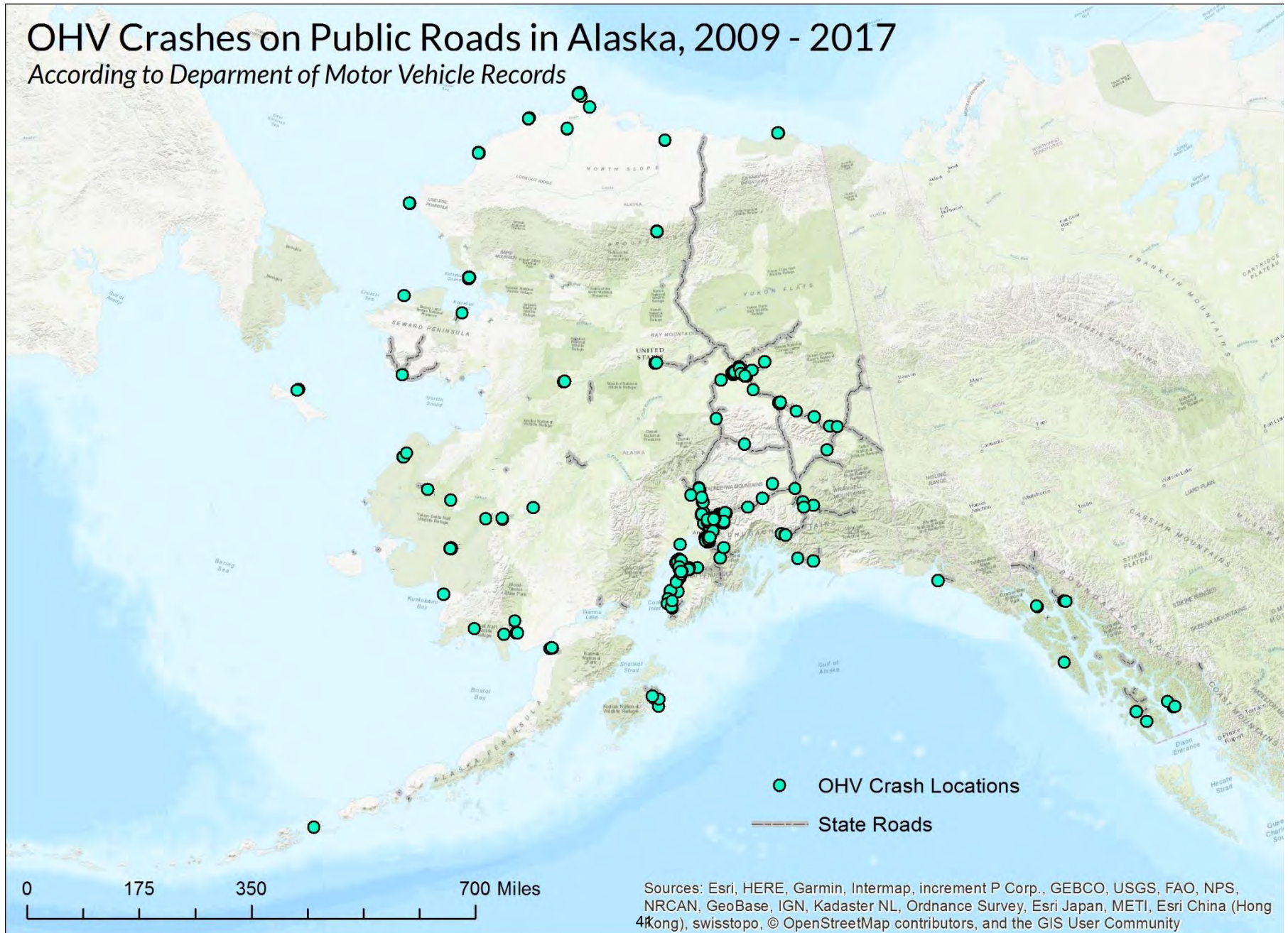
OHV Crash Summary Statistics (2013 – 2017)

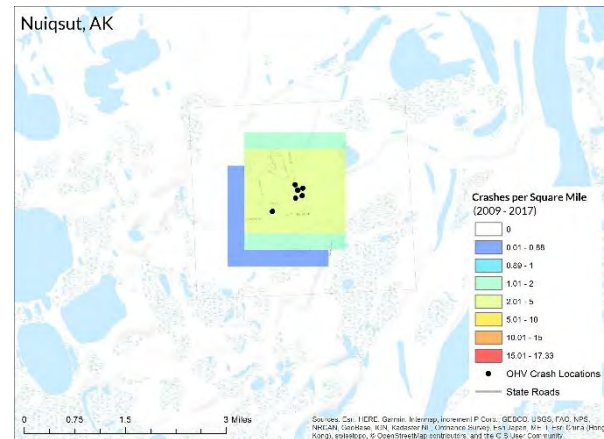
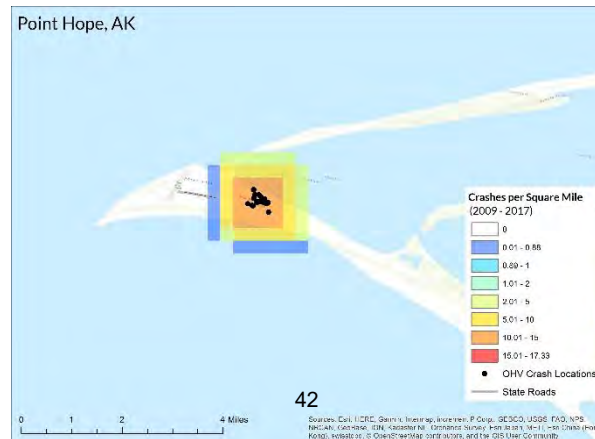
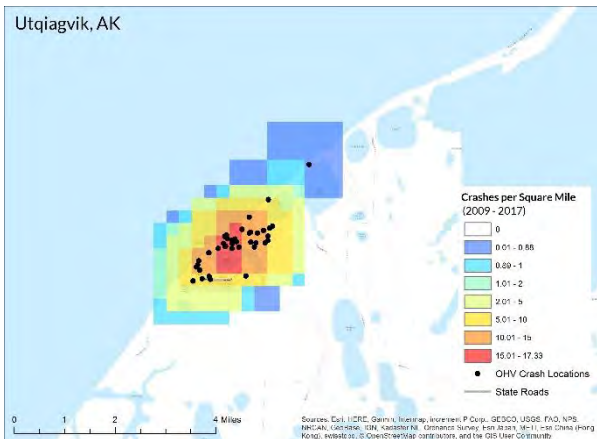
County	N	%	Sex	N	%	Age	N	%
North Slope Borough	71	31.4	Male	130	57.5	< 16	46	20.4
Fairbanks North Star Borough	27	11.9	Female	59	26.1	16 - 25	69	30.5
Unorganized Borough	38	16.8	Unknown	18	8.0	26 - 35	33	14.6
Bristol Bay Borough	3	1.3	Null Value	19	8.4	36 - 45	21	9.3
Matanuska-Susitna Borough	35	15.5				46 - 55	23	10.2
Kenai Peninsula Borough	18	8.0				55+	7	3.1
Anchorage Municipality	17	7.5				Null	27	11.9
Denali Borough	1	0.4						
Northwest Arctic Borough	11	4.9						
Aleutians East Borough	1	0.4						
Kodiak Island Borough	3	1.3						
Ketchikan Gateway Borough	1	0.4						

Surface Condition	N	%	Safety Accoutrements	N	%
Ice/Frost	43	19.0	No Restraint System Used	22	9.7%
Snow	35	15.5	No Helmet	94	41.6%
Slush	1	0.4	No Safety Equipment Used	9	4.0%
Dry (pavement)	73	32.3	Helmet (not DOT-Compliant)	3	1.3%
Wet (pavement)	12	5.3	Helmet (DOT-Compliant)	6	2.7%
Mud/Dirt/Gravel	44	19.5	Unknown	36	15.9%
Other	14	6.2	Null value	37	16.4%
Unknown	3	1.3			

OHV Crashes on Public Roads in Alaska, 2009 - 2017

According to Department of Motor Vehicle Records





APPROACH PT 3.

Conduct media discourse analyses (i.e., critical evaluation and distillation of news and media) to identify trends and issues in the United States related to OHV/ATV use on public facilities.

15-Year-Old Arrested After ATV Crash on Sunrise Highway

Between 20 and 30 people were riding dirt bikes and ATVs on the highway Monday evening, police say.

By Ryan Bonner (Patch National Staff) - October 11, 2016 7:40 pm ET | P

Like 748 Share

Rural Alaska

Sudden crackdown on four-wheelers quiets Bethel streets and upsets residents

Author: [Lisa Demer](#) Updated: October 10, 2016 Published October 10, 2016

Akiachak woman dies when struck by ATV

Author: [Chris Klint](#) Updated: October 3, 2016 Published October 3, 2016

A 76-year-old pedestrian was killed in the Western Alaska village of Akiachak late Friday when she was struck by an all-terrain vehicle, Alaska State Troopers said.

Anchorage man killed in ATV crash on Denali Highway

Author: [Michelle Theriault Boots](#) Updated: August 27 Published August 27

An Anchorage man was killed in an ATV crash on the Denali Highway Saturday, the Alaska State Troopers said.

Troopers seek driver involved in ATV crash on Geist Road on Tuesday

Dorothy Chomicz, dchomicz@newsminer.com May 6, 2020 Updated Sep 1, 2020



Wasilla stops short of ATV ban in approving new rules

Author: [Zaz Hollander](#) Updated: September 28, 2016 Published April 28, 2015

WASILLA -- All-terrain vehicles are still welcome within Wasilla city limits -- provided riders park them by 10 p.m., avoid danger or destruction, and carry a valid driver's license.

That's a paradigm shift in this still-growing city of about 9,000 where people on snowmachines and four-wheelers were once accustomed to free rein but now trigger complaints about riders speeding, churning ~~40~~ fresh grass or spitting up bike path gravel.

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Detroit, MI



Washington, DC



Bridgeport, CT



Philadelphia, PA

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National media was tracked for the period of July 1, 2017, through June 30, 2018; and

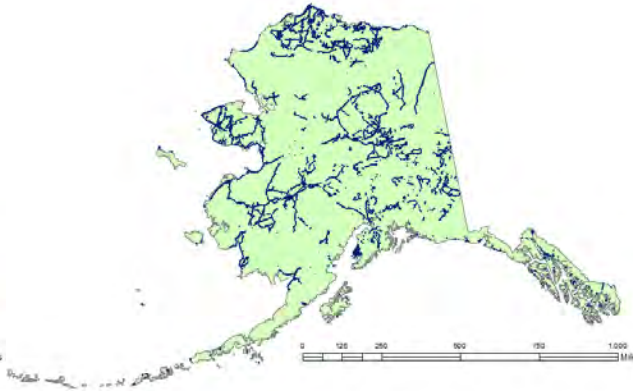
- The analysis yielded 1,327 articles in total, **812 (61.2%) of which dealt with on-road OHV use** and 18 of which were from Alaska; and
- 482 articles covered on-road incidents that resulted in severe injury or fatality, 297 articles covered issues related to on-road policies, and 33 articles discussed issues related to education about on-road use; and
- **10 of the articles from Alaska (55%) involved OHV fatalities.**

APPROACH PT 4.

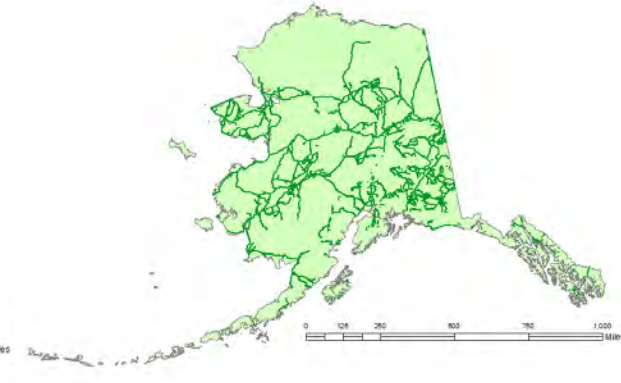
Identifying connectivity and extent of OHV user routes using a GIS platform with consideration of trip generators and destinations, roadway system vs. non-roadway system locations, and formal and informal networks.



Streets: 31,692 mi

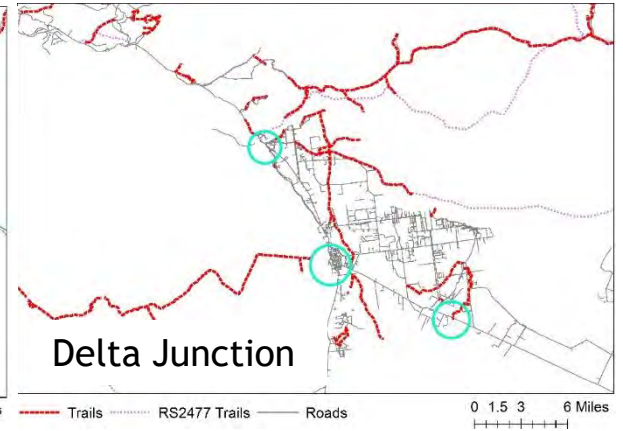
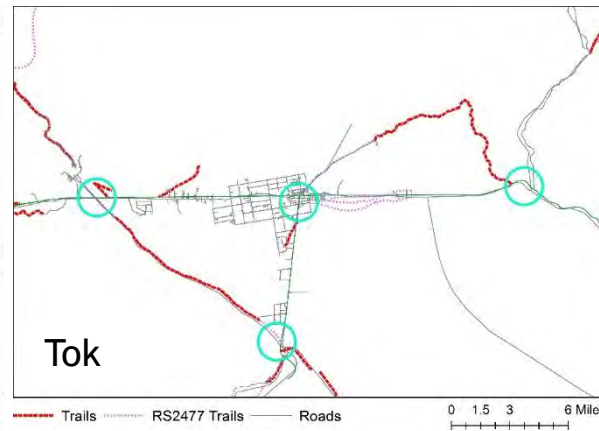
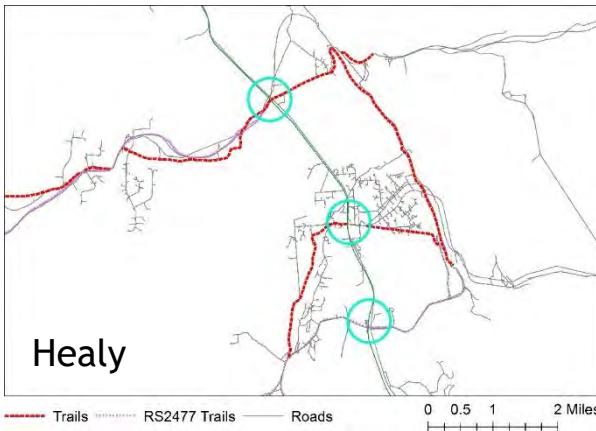
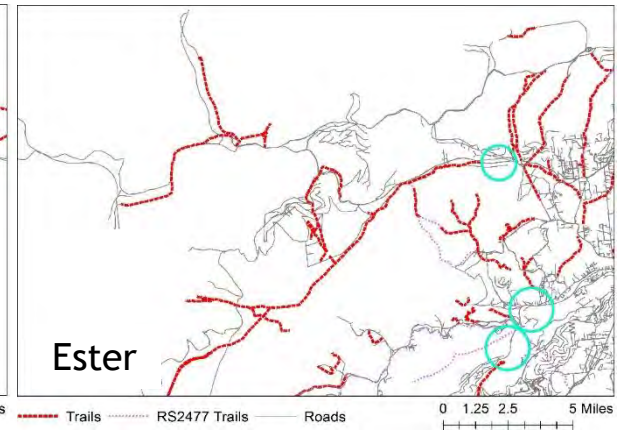
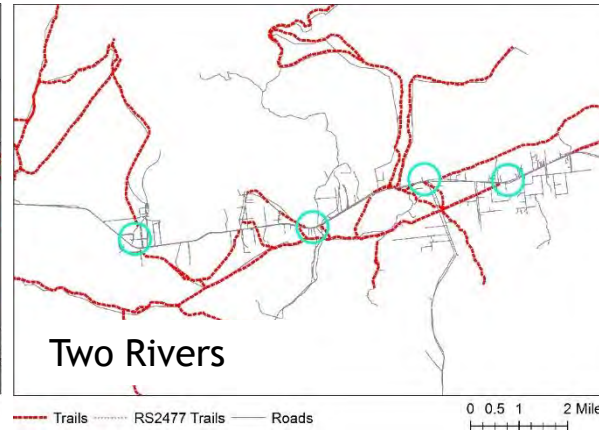
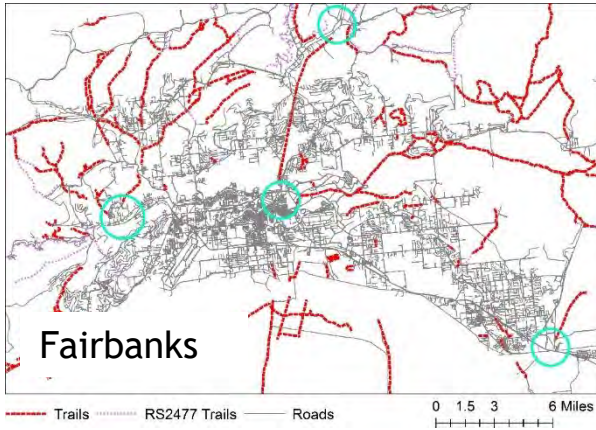


Trails: 23,191 mi



RS2477: 20,428 mi

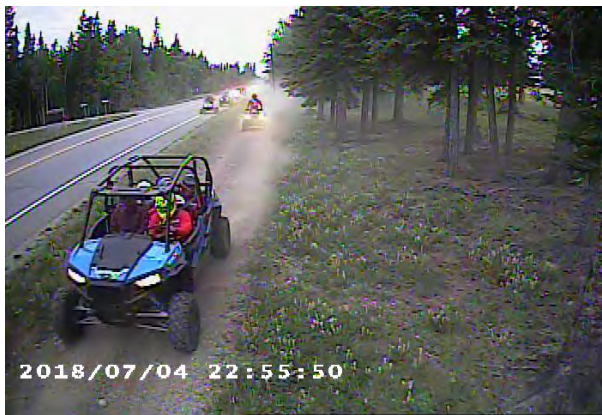
Right-of-way for the construction of roads/trails
over public lands, not reserved for public uses

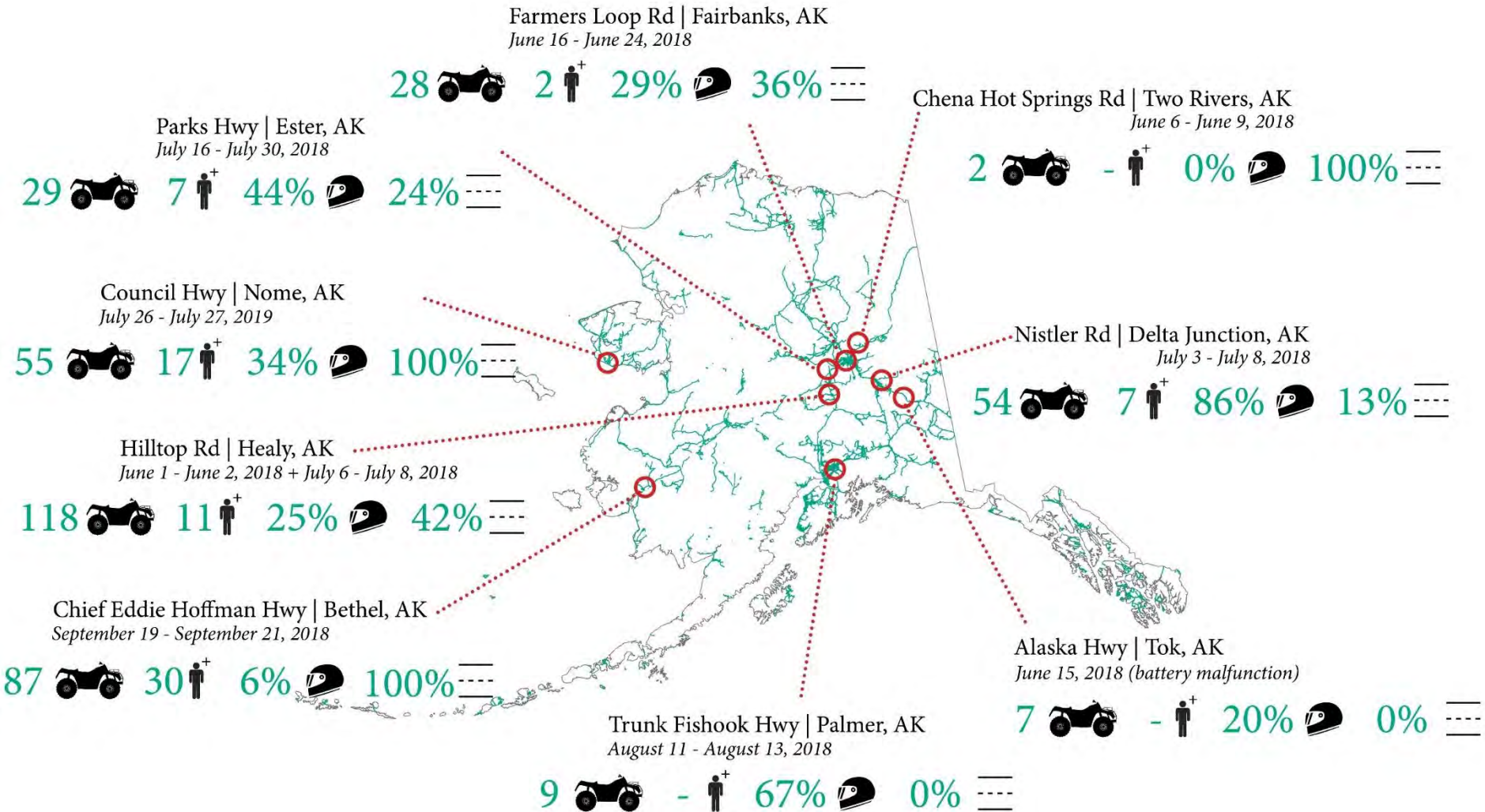


Select locations for OHV Counts

APPROACH PT 5.

Conduct field counts of OHV use to assess conflicts and level of safety concerns for OHVs within the public Rights-of-Way for staff to review and consider countermeasures





Phase 1 + 2.

Phase 1 + 2. Amount of Traffic

	Road Camera Facing	Town	Dates Collected	Weather	Total Observation Time (Hours)	Raw Count	ADT	Percent with Passengers	Percent with Passengers ⁽¹⁾ (normalized)	Percent with Unlawful Passengers ⁽¹⁾	Helmet Use ⁽²⁾ (%)	On-Road Total (%)	Unlawfully On-Road ⁽³⁾ (%)
Phase 1 (2018)	Nistler Road	Delta Junction	7/3 - 7/8	Sunny	116.6	54	11.1	14.8	16.0	10.0	86.2	100.0	13.0
	Parks Highway	Ester	7/16 - 7/23 & 7/26 - 7/30 ⁽⁴⁾	Partly Cloudy Rain 7/26-7/27	269.3	29	2.6	24.1	24.1	24.1	44.0	100.0	24.1
	Farmers Loop Road ⁽⁵⁾	Fairbanks	6/16 - 6/24	Partly Cloudy Rain 6/22	178.0	28	3.8	14.3	14.3	7.1	29.6	53.6	35.7
	Parks Highway ⁽⁶⁾	Fairbanks	5/23 - 5/30	Rain 5/23-5/24 Partly Cloudy 5/25-5/30	170.0	9	1.3	22.2	22.2	22.2	45.5	77.8	77.8
	Parks Highway	Healy	6/1 - 6/2 & 7/06-7/08	Sunny Cloudy 7/8	69.6	118	40.7	16.9	21.3	8.5	24.8	75.4	41.5
	Alaska Highway	Tok	6/15	Partly Cloudy	9.5 ⁽⁷⁾	7	17.7	0.0	0.0	0.0	20.0	0.0	0.0
	Chena Hot Springs Road	Two Rivers	6/6 - 6/9	Partly Cloudy	77.4	2	0.6	0.0	0.0	0.0	100.0	100.0	100.0
Phase 2 (2019)	Sterling Highway	Anchor Point	8/16 - 8/17	Partly Cloudy	63.0	0	0.0	0.0	N/A	N/A	N/A	N/A	N/A
	Chief Eddie Hoffman Highway	Bethel*	9/19 - 9/21	Partly Cloudy	44.8	87	46.6	33.3	34.5	34.5	6.3	100.0	100.0
	Ridgecrest Drive	Bethel*	9/19 - 9/21	Partly Cloudy	43.6	11	6.1	45.5	50.0	50.0	10.0	100.0	100.0
	1st Avenue ⁽⁸⁾	Bethel*	9/20	Partly Cloudy	5.4	38	N/A	62.5	62.5	NA	0.0	100.0	0.0
	Council Highway	Nome*	7/26 - 7/27	Partly Cloudy 7/26 Rain 7/27	27.4	55	48.2	18.2	30.3	30.3	34.1	100.0	100.0
	Teller Highway	Nome*	7/26 - 7/27	Partly Cloudy 7/26 Rain 7/27	27.4	0	0.0	N/A	N/A	N/A	N/A	N/A	N/A
	Trunk Fishhook Highway	Palmer	8/11 - 8/13	Partly Cloudy	43.1	9	5.0	0.0	0.0	0.0	66.7	100.0	0.0

Notes: (1) Percentage based upon vehicles with discernable number of passengers; (2) Cases where helmet use was not discernable were excluded from the analysis; (3) Excludes OHVs crossing roads as described in Alaska Statute 13 AAC 02.455; (4) Image masking excluded sidewalk in first collection period; (5) Roadwork near collection site during collection period; (6) Data collected over two separate periods due to time constraints; (7) Battery malfunction resulted in abbreviated test period; (8) On-road use legal in this location, manual observations used during abbreviated period: 2:35 - 8:00pm; *Off-Highway vehicles allowed on roadways per local jurisdiction

Phase 1 + 2. Risk Tolerant Behaviors - “Unlawful” Passengers

	Road Camera Facing	Town	Dates Collected	Weather	Total Observation Time (Hours)	Raw Count	ADT	Percent with Passengers	Percent with Passengers ⁽¹⁾ (normalized)	Percent with Unlawful Passengers ⁽¹⁾	Helmet Use ⁽²⁾ (%)	On-Road Total (%)	Unlawfully On-Road ⁽³⁾ (%)
Phase 1 (2018)	Nistler Road	Delta Junction	7/3 - 7/8	Sunny	116.6	54	11.1	14.8	16.0	10.0	86.2	100.0	13.0
	Parks Highway	Ester	7/16 - 7/23 & 7/26 - 7/30 ⁽⁴⁾	Partly Cloudy Rain 7/26-7/27	269.3	29	2.6	24.1	24.1	24.1	44.0	100.0	24.1
	Farmers Loop Road ⁽⁵⁾	Fairbanks	6/16 - 6/24	Partly Cloudy Rain 6/22	178.0	28	3.8	14.3	14.3	7.1	29.6	53.6	35.7
	Parks Highway ⁽⁶⁾	Fairbanks	5/23 - 5/30	Rain 5/23-5/24 Partly Cloudy 5/25-5/30	170.0	9	1.3	22.2	22.2	22.2	45.5	77.8	77.8
	Parks Highway	Healy	6/1 - 6/2 & 7/06-7/08	Sunny Cloudy 7/8	69.6	118	40.7	16.9	21.3	8.5	24.8	75.4	41.5
	Alaska Highway	Tok	6/15	Partly Cloudy	9.5 ⁽⁷⁾	7	17.7	0.0	0.0	0.0	20.0	0.0	0.0
	Chena Hot Springs Road	Two Rivers	6/6 - 6/9	Partly Cloudy	77.4	2	0.6	0.0	0.0	0.0	100.0	100.0	100.0
Phase 2 (2019)	Sterling Highway	Anchor Point	8/16 - 8/17	Partly Cloudy	63.0	0	0.0	0.0	N/A	N/A	N/A	N/A	N/A
	Chief Eddie Hoffman Highway	Bethel*	9/19 - 9/21	Partly Cloudy	44.8	87	46.6	33.3	34.5	34.5	6.3	100.0	100.0
	Ridgecrest Drive	Bethel*	9/19 - 9/21	Partly Cloudy	43.6	11	6.1	45.5	50.0	50.0	10.0	100.0	100.0
	1st Avenue ⁽⁸⁾	Bethel*	9/20	Partly Cloudy	5.4	38	N/A	62.5	62.5	NA	0.0	100.0	0.0
	Council Highway	Nome*	7/26 - 7/27	Partly Cloudy 7/26 Rain 7/27	27.4	55	48.2	18.2	30.3	30.3	34.1	100.0	100.0
	Teller Highway	Nome*	7/26 - 7/27	Partly Cloudy 7/26 Rain 7/27	27.4	0	0.0	N/A	N/A	N/A	N/A	N/A	N/A
	Trunk Fishhook Highway	Palmer	8/11 - 8/13	Partly Cloudy	43.1	9	5.0	0.0	0.0	0.0	66.7	100.0	0.0

Notes: (1) Percentage based upon vehicles with discernable number of passengers; (2) Cases where helmet use was not discernable were excluded from the analysis; (3) Excludes OHVs crossing roads as described in Alaska Statute 13 AAC 02.455; (4) Image masking excluded sidewalk in first collection period; (5) Roadwork near collection site during collection period; (6) Data collected over two separate periods due to time constraints; (7) Battery malfunction resulted in abbreviated test period; (8) On-road use legal in this location, manual observations used during abbreviated period: 2:35 - 8:00pm; *Off-Highway vehicles allowed on roadways per local jurisdiction

Phase 1 + 2. Risk Tolerant Behaviors – No Helmets

	Road Camera Facing	Town	Dates Collected	Weather	Total Observation Time (Hours)	Raw Count	ADT	Percent with Passengers	Percent with Passengers ⁽¹⁾ (normalized)	Percent with Unlawful Passengers ⁽¹⁾	Helmet Use ⁽²⁾ (%)	On-Road Total (%)	Unlawfully On-Road ⁽³⁾ (%)
Phase 1 (2018)	Nistler Road	Delta Junction	7/3 - 7/8	Sunny	116.6	54	11.1	14.8	16.0	10.0	86.2	100.0	13.0
	Parks Highway	Ester	7/16 - 7/23 & 7/26 - 7/30 ⁽⁴⁾	Partly Cloudy Rain 7/26-7/27	269.3	29	2.6	24.1	24.1	24.1	44.0	100.0	24.1
	Farmers Loop Road ⁽⁵⁾	Fairbanks	6/16 - 6/24	Partly Cloudy Rain 6/22	178.0	28	3.8	14.3	14.3	7.1	29.6	53.6	35.7
	Parks Highway ⁽⁶⁾	Fairbanks	5/23 - 5/30	Rain 5/23-5/24 Partly Cloudy 5/25-5/30	170.0	9	1.3	22.2	22.2	22.2	45.5	77.8	77.8
	Parks Highway	Healy	6/1 - 6/2 & 7/06-7/08	Sunny Cloudy 7/8	69.6	118	40.7	16.9	21.3	8.5	24.8	75.4	41.5
	Alaska Highway	Tok	6/15	Partly Cloudy	9.5 ⁽⁷⁾	7	17.7	0.0	0.0	0.0	20.0	0.0	0.0
	Chena Hot Springs Road	Two Rivers	6/6 - 6/9	Partly Cloudy	77.4	2	0.6	0.0	0.0	0.0	100.0	100.0	100.0
Phase 2 (2019)	Sterling Highway	Anchor Point	8/16 - 8/17	Partly Cloudy	63.0	0	0.0	0.0	N/A	N/A	N/A	N/A	N/A
	Chief Eddie Hoffman Highway	Bethel*	9/19 - 9/21	Partly Cloudy	44.8	87	46.6	33.3	34.5	34.5	6.3	100.0	100.0
	Ridgecrest Drive	Bethel*	9/19 - 9/21	Partly Cloudy	43.6	11	6.1	45.5	50.0	50.0	10.0	100.0	100.0
	1st Avenue ⁽⁸⁾	Bethel*	9/20	Partly Cloudy	5.4	38	N/A	62.5	62.5	NA	0.0	100.0	0.0
	Council Highway	Nome*	7/26 - 7/27	Partly Cloudy 7/26 Rain 7/27	27.4	55	48.2	18.2	30.3	30.3	34.1	100.0	100.0
	Teller Highway	Nome*	7/26 - 7/27	Partly Cloudy 7/26 Rain 7/27	27.4	0	0.0	N/A	N/A	N/A	N/A	N/A	N/A
	Trunk Fishhook Highway	Palmer	8/11 - 8/13	Partly Cloudy	43.1	9	5.0	0.0	0.0	0.0	66.7	100.0	0.0

Notes: (1) Percentage based upon vehicles with discernable number of passengers; (2) Cases where helmet use was not discernable were excluded from the analysis; (3) Excludes OHVs crossing roads as described in Alaska Statute 13 AAC 02.455; (4) Image masking excluded sidewalk in first collection period; (5) Roadwork near collection site during collection period; (6) Data collected over two separate periods due to time constraints; (7) Battery malfunction resulted in abbreviated test period; (8) On-road use legal in this location, manual observations used during abbreviated period: 2:35 - 8:00pm; *Off-Highway vehicles allowed on roadways per local jurisdiction

Phase 1 + 2. Risk Tolerant Behaviors – On Road/Highway

	Road Camera Facing	Town	Dates Collected	Weather	Total Observation Time (Hours)	Raw Count	ADT	Percent with Passengers	Percent with Passengers ⁽¹⁾ (normalized)	Percent with Unlawful Passengers ⁽¹⁾	Helmet Use ⁽²⁾ (%)	On-Road Total (%)	Unlawfully On-Road ⁽³⁾ (%)
Phase 1 (2018)	Nistler Road	Delta Junction	7/3 - 7/8	Sunny	116.6	54	11.1	14.8	16.0	10.0	86.2	100.0	13.0
	Parks Highway	Ester	7/16 - 7/23 & 7/26 - 7/30 ⁽⁴⁾	Partly Cloudy Rain 7/26-7/27	269.3	29	2.6	24.1	24.1	24.1	44.0	100.0	24.1
	Farmers Loop Road ⁽⁵⁾	Fairbanks	6/16 - 6/24	Partly Cloudy Rain 6/22	178.0	28	3.8	14.3	14.3	7.1	29.6	53.6	35.7
	Parks Highway ⁽⁶⁾	Fairbanks	5/23 - 5/30	Rain 5/23-5/24 Partly Cloudy 5/25-5/30	170.0	9	1.3	22.2	22.2	22.2	45.5	77.8	77.8
	Parks Highway	Healy	6/1 - 6/2 & 7/06-7/08	Sunny Cloudy 7/8	69.6	118	40.7	16.9	21.3	8.5	24.8	75.4	41.5
	Alaska Highway	Tok	6/15	Partly Cloudy	9.5 ⁽⁷⁾	7	17.7	0.0	0.0	0.0	20.0	0.0	0.0
	Chena Hot Springs Road	Two Rivers	6/6 - 6/9	Partly Cloudy	77.4	2	0.6	0.0	0.0	0.0	100.0	100.0	100.0
Phase 2 (2019)	Sterling Highway	Anchor Point	8/16 - 8/17	Partly Cloudy	63.0	0	0.0	0.0	N/A	N/A	N/A	N/A	N/A
	Chief Eddie Hoffman Highway	Bethel*	9/19 - 9/21	Partly Cloudy	44.8	87	46.6	33.3	34.5	34.5	6.3	100.0	100.0
	Ridgecrest Drive	Bethel*	9/19 - 9/21	Partly Cloudy	43.6	11	6.1	45.5	50.0	50.0	10.0	100.0	100.0
	1st Avenue ⁽⁸⁾	Bethel*	9/20	Partly Cloudy	5.4	38	N/A	62.5	62.5	NA	0.0	100.0	0.0
	Council Highway	Nome*	7/26 - 7/27	Partly Cloudy 7/26 Rain 7/27	27.4	55	48.2	18.2	30.3	30.3	34.1	100.0	100.0
	Teller Highway	Nome*	7/26 - 7/27	Partly Cloudy 7/26 Rain 7/27	27.4	0	0.0	N/A	N/A	N/A	N/A	N/A	N/A
	Trunk Fishhook Highway	Palmer	8/11 - 8/13	Partly Cloudy	43.1	9	5.0	0.0	0.0	0.0	66.7	100.0	0.0

Notes: (1) Percentage based upon vehicles with discernable number of passengers; (2) Cases where helmet use was not discernable were excluded from the analysis; (3) Excludes OHVs crossing roads as described in Alaska Statute 13 AAC 02.455; (4) Image masking excluded sidewalk in first collection period; (5) Roadwork near collection site during collection period; (6) Data collected over two separate periods due to time constraints; (7) Battery malfunction resulted in abbreviated test period; (8) On-road use legal in this location, manual observations used during abbreviated period: 2:35 - 8:00pm; *Off-Highway vehicles allowed on roadways per local jurisdiction

Moving Forward. POLICY EDUCATION DESIGN

Parting Thoughts.

The U.S. Consumer Product Safety Commission **warns against operating ATVs on public roads.**

The Specialty Vehicle Institute of America states that **“ATVs are intended for off-road use only. Never operate an ATV on public roads, and always avoid paved surfaces. ATVs are not designed for use on public roads ...”**

Consumer Federation of America (CSA) coalition members have signed onto over 230 letters in 26 states since 2014 advocating against legislations to allow OHVs on roads as they **“are not designed for roadway use and therefore should not be allowed on public roads.”**

Thanks for listening.

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