



March 13, 2025

Senate Transportation Committee

Department of Transportation & Public Facilities

Highway and Non-Motorized User Safety

Pam Golden, P.E., State Traffic & Safety Engineer

Shannon McCarthy, Communications Director

Dan Smith, Director, Measurement Standards and Commercial Vehicle Compliance



FedEx

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SAFE SYSTEMS APPROACH

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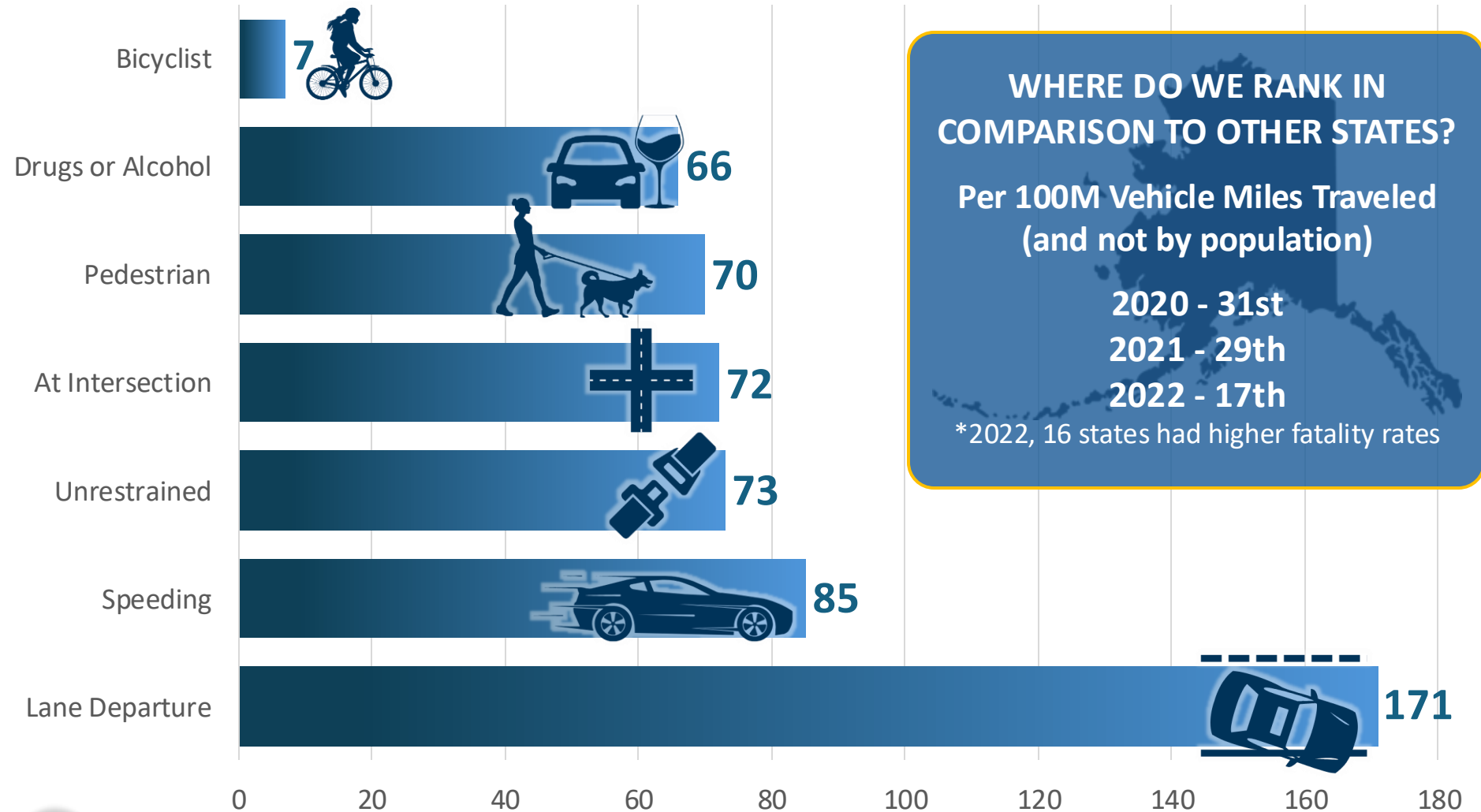
- Death and Serious Injuries are Unacceptable
- Humans Make Mistakes
- Humans Are Vulnerable
- Responsibility is Shared
- Safety is Proactive
- Redundancy is Crucial



PARTNERS IN SAFETY
ALASKA DOT & PF

ALASKA FATALITIES

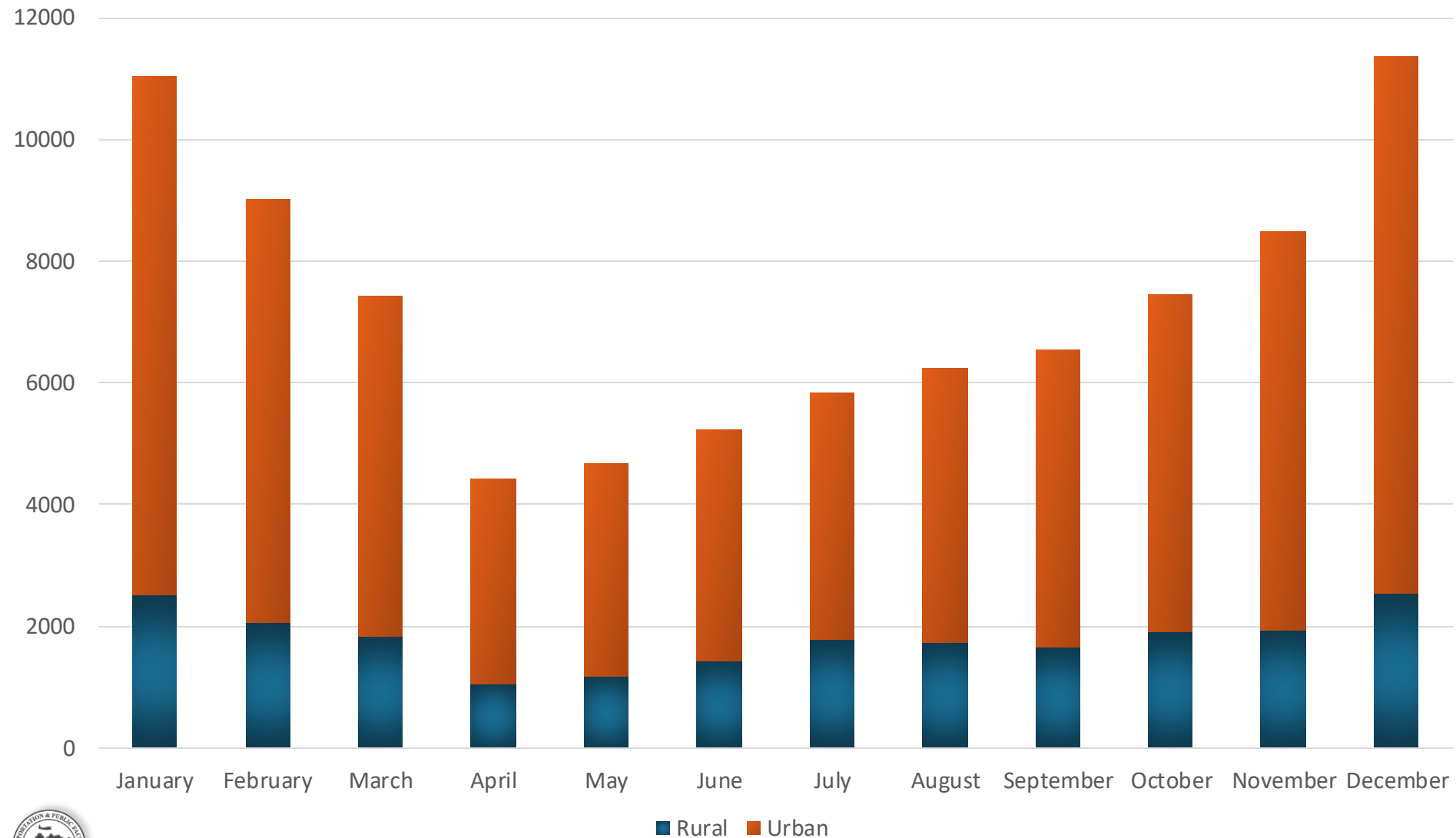
Different Crash Types REQUIRE Different Solutions



(5-years of fatal crash data)

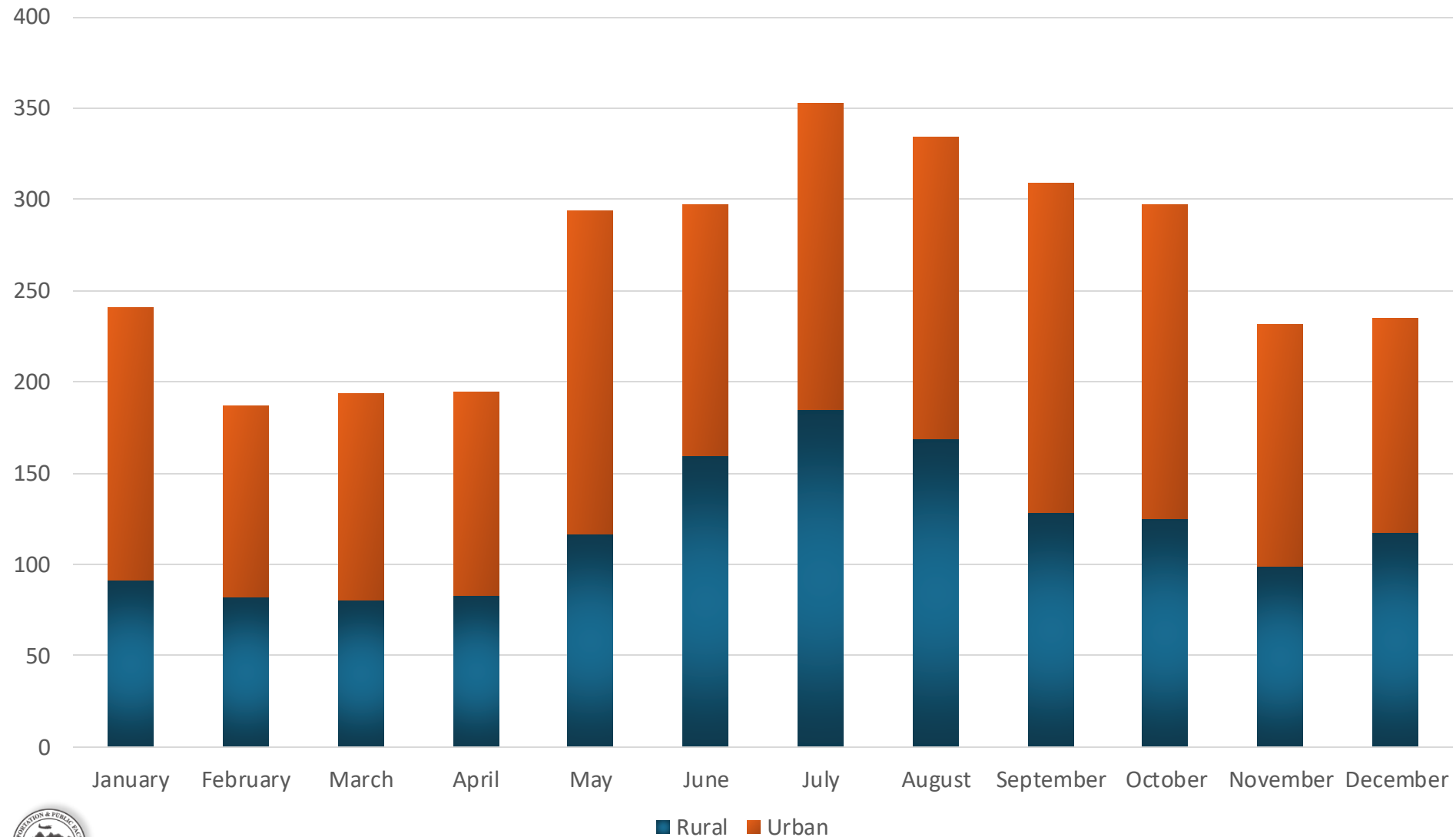
URBAN VS RURAL: OVERALL CRASHES

All Crash Severities, 2014-2023



URBAN VS RURAL: SERIOUS INJURIES & FATALITIES

Serious Injury and Fatal Crashes, 2014-2023



PROBLEM:

Pedestrians are Over-Represented in Alaska Fatality Counts

National Ranking Pedestrian Fatality Rate/100,000 population

source: NHTSA Fatality Analysis Reporting System

	2020	2021	2022	2023*	2024*
# of pedestrian fatalities	13	17	13	12 ped, 0 bike	15 ped, 1 bike
Ranking	21 st	18 th	27 th		

Because of our smaller population and fewer number of overall crashes, Alaska hovers between 15-20% of pedestrians in all crash fatalities.

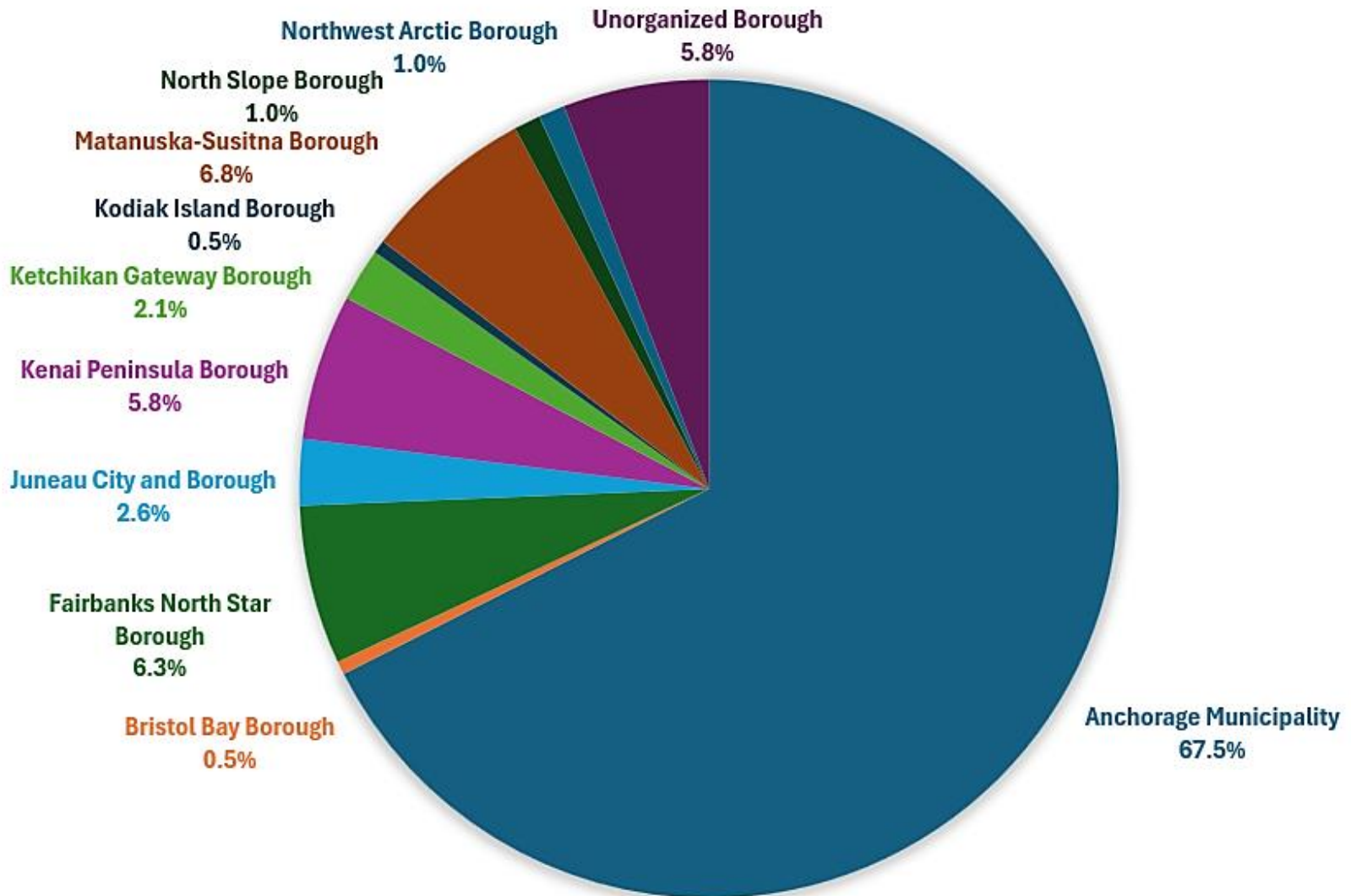
15%
to
20%

*unofficial results

NHTSA – National Highway Traffic Safety Administration

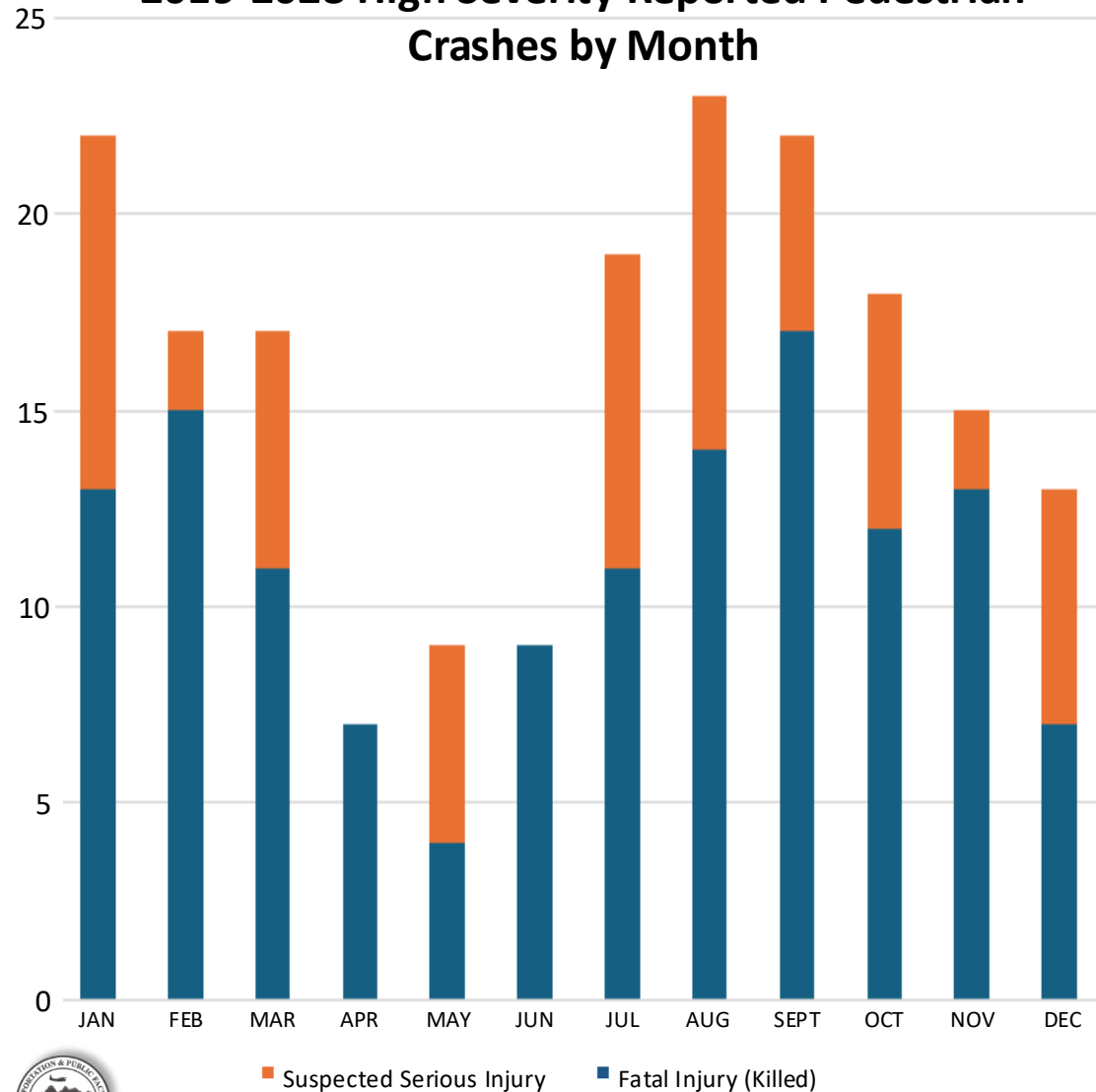
PEDESTRIAN CRASHES

2019-2023 REPORTED FATAL AND SERIOUS INJURY PEDESTRIAN CRASHES BY BOROUGH



PEDESTRIAN CRASHES

2019-2023 High Severity Reported Pedestrian Crashes by Month



WHAT DO WE KNOW ABOUT ALASKA'S PEDESTRIAN CRASHES?

Overrepresented in Alaska's pedestrian fatalities:

Dark / Low-light



Fall-Winter

Rain, Snow, Ice



4-7 PM

Similar Injury Profile



BICYCLIST: DIFFERENT CRASH PROBLEM

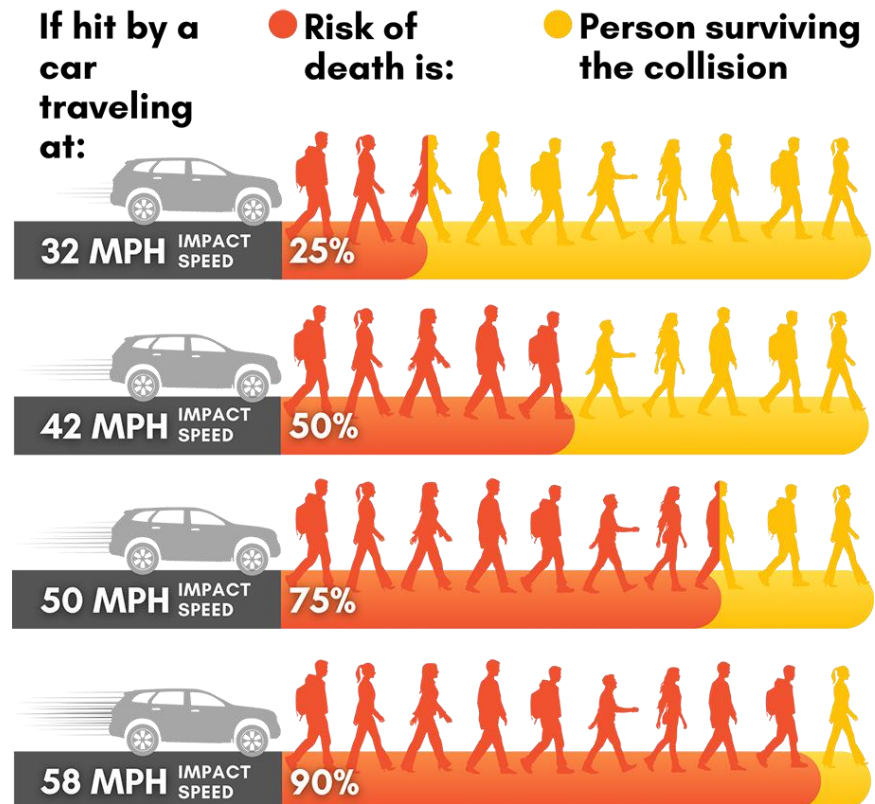
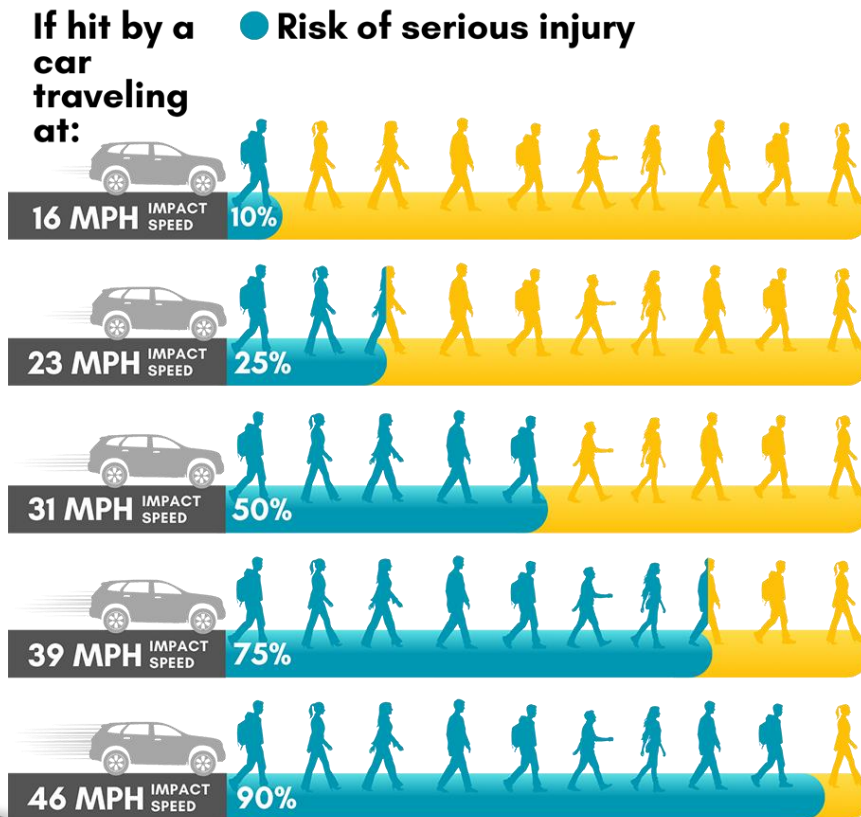
Reported Crashes 2019-2023

- ~95 crashes/year
- 77% are in Anchorage
- 81% injury
- 2.5 in 100 of all statewide fatal crashes
- Trend: total crashes declining while fatalities are increasing again
- 88% at intersections or driveways



SPEED LIMITS AND PHYSICS

- Speed plays a role in every crash
- Higher speed crashes are typically more severe
- Lowering speed limits without changing the context of the roadway typically results in a 2-3 mph change in operating speed, unless there is regular enforcement



According to a study by the AAA Foundation for Traffic Safety

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ALASKA HIGHWAY SAFETY OFFICE

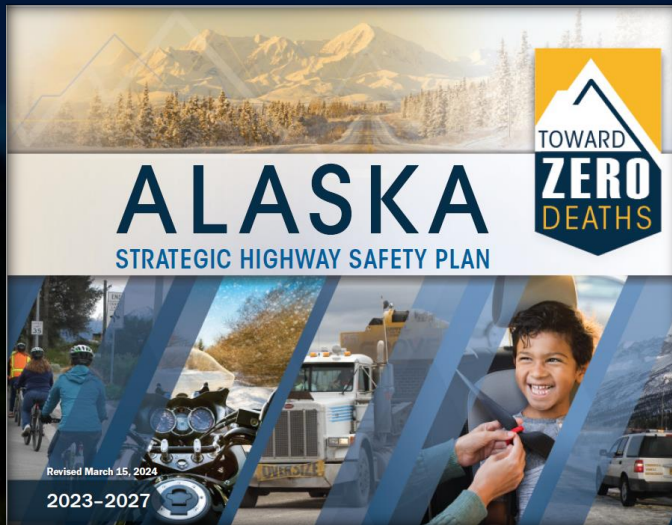
Improving Behaviors

High-Visibility Enforcement
Car Seat/CarFit Checks
Impaired Driving Education
Pedestrian and Bicycle Safety Education
Seat Belt Education

HIGHWAY SAFETY IMPROVEMENT PROGRAM

Improving Roadways

Road Safety Audits
Signals and Signs
Crosswalk Markings/Crosswalk
Enhancements
Guardrail and Crash Cushions
Intersection Improvements



PROVEN SAFETY COUNTERMEASURES SAVE LIVES AND ARE UNDERUTILIZED

Solutions with Significant Crash-reduction Potential



Source: Fatality Analysis Reporting System (FARS) 2021 Annual Report File; Federal Highway Administration (FHWA) Proven Safety Countermeasure:
<https://highways.dot.gov/safety/proven-safety-countermeasures>

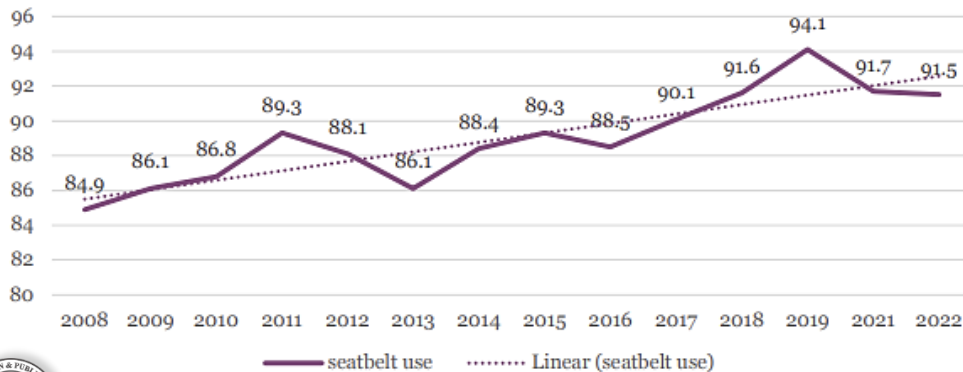
% 2021 Fatalities	Crash Type	Proven Safety Countermeasures can reduce crashes by
50%	Roadway Departures	Median Barriers: 97% Rumble Strips: 51-64%
27%	Intersections	Roundabouts: 82% Managing Corridor Access: 31%
29%	Speeding	Variable Speed Limits: 51%
30%	Pedestrians & Cyclists	Sidewalks: 89% Adding Bike Lanes: 49%



IMPROVING SAFETY IN ALASKA: SEAT BELT USE

Borough	2016	2017	2018	2019	2021	2021	2022	2023	2024
Anchorage	89.4	90.1	93.5	96.5	94.9	94.9	93.7	98.3	93.8
Fairbanks	89	88.5	84.9	91.2	93.5	93.5	91.4	94.4	92.6
Juneau	86.9	86.6	89.4	84.7	81.5	81.5	97.6	96.4	80.3
Kenai	81.3	90.7	90.6	96.8	85	85	85.9	85.2	94.3
Mat-Su	95	93.4	97.6	91.6	85.1	85.1	85	88.5	85.7

Weighted seatbelt use by year (percent)



IMPROVING SAFETY IN ALASKA: INTERSECTIONS

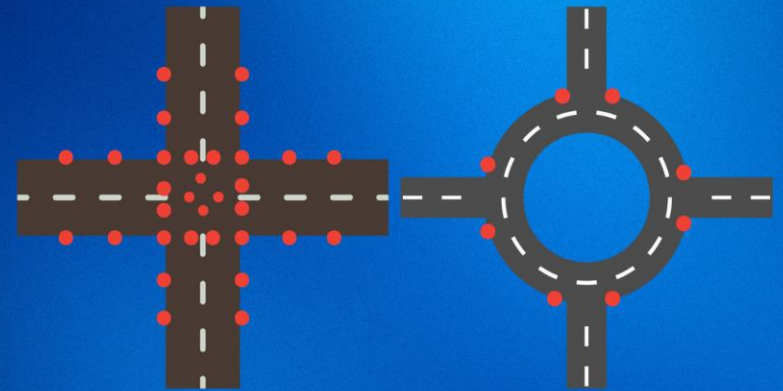
- Signal conspicuity (upgrading to have signal head for each approaching lane)
- Steps to implement leading pedestrian intervals: Anchorage and Fairbanks
- Technologies to support law enforcement and Emergency Medical Services
- Roundabouts first
- Retroreflective backplates



TRADITIONAL INTERSECTION

32

Possible opportunities for a collision. Many of those are dangerous, high speed, head-on, or angle collisions.



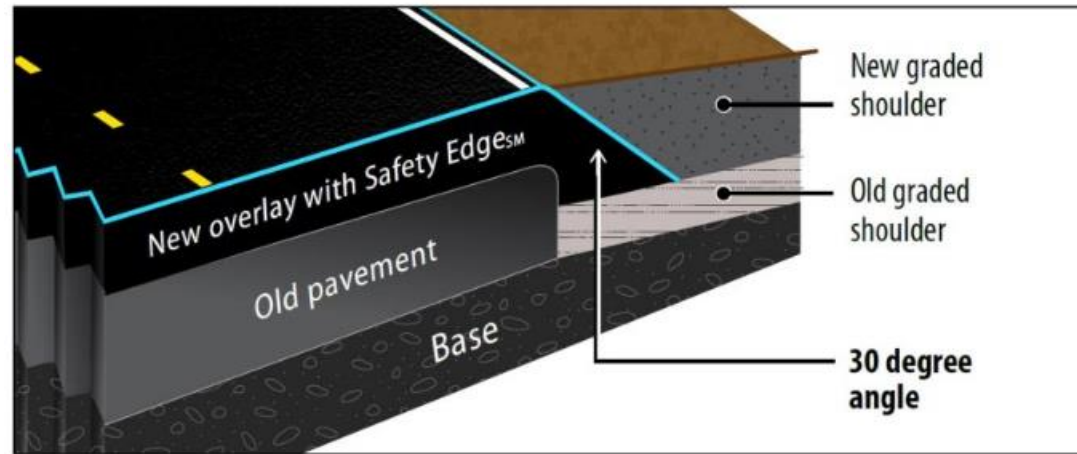
ROUNDBOUT INTERSECTION

8

Possible opportunities for a collision. Plus the collisions that do happen are slower and less serious.

IMPROVING SAFETY IN ALASKA: RURAL 2-LANE

- Guardrail Upgrades
- Passing Lanes
- Curve Warning Signs
- Rumble/Mumble Strips and Stripes
- SafetyEdgeSM
- Improved Traveler Info



Cross-section view of an overlay with the SafetyEdgeSM.

Source: FHWA-SA-17-044



IMPROVING SAFETY IN ALASKA: ROAD SAFETY AUDITS (RSA)

Road Safety Audits are conducted by independent, multi-disciplinary teams

- Identify safety concerns to road users including those that may be under different circumstances
- Identify near, mid, and long-term opportunities that eliminate or mitigate the identified safety concerns

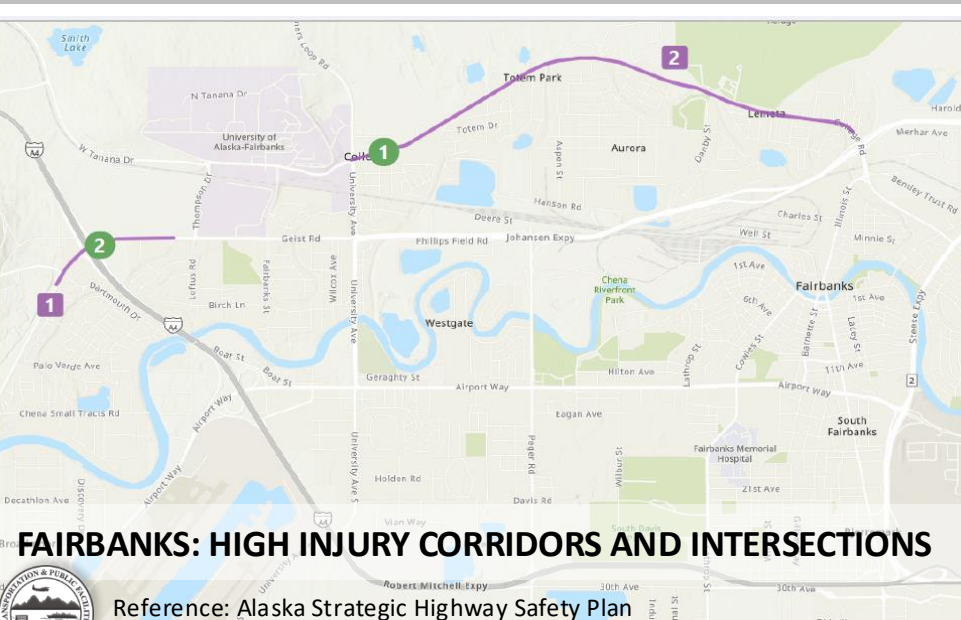
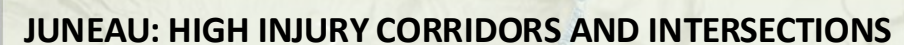
Three packages of Safety Audits kicking off in 2025

- Rural and Remote School Safety Audits
- Statewide Road Safety Audits
- Vulnerable Road User Safety Audits



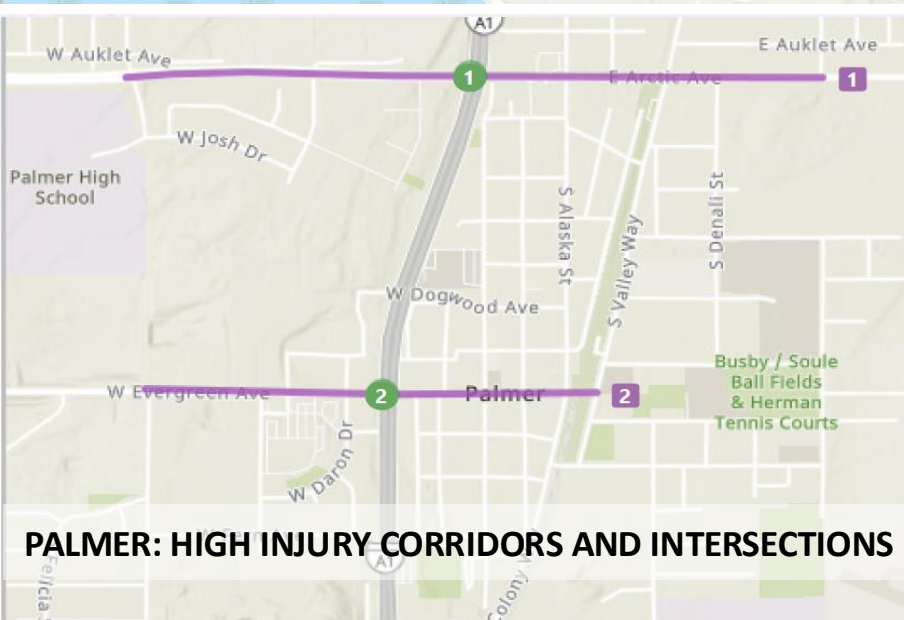
2015 Badger Rd RSA Team

ANCHORAGE: HIGH INJURY CORRIDORS AND INTERSECTIONS



FAIRBANKS: HIGH INJURY CORRIDORS AND INTERSECTIONS

Reference: Alaska Strategic Highway Safety Plan



PALMER: HIGH INJURY CORRIDORS AND INTERSECTIONS

IMPROVING SAFETY IN ALASKA: NEW WAYS OF WORKING TO SUPPORT SAFETY



- Complete Streets Policy Under Development
- Alaska Traffic Manual – Update Alaska's With New National Manual
- Updating Speed Limit Policy
- Urban Safety Corridor Selection Criteria
- Highway Preconstruction Manual
- Adding Accessible Pedestrian Signal Technology (Leading Pedestrian Signals)
- Focus on Cruise Ship Communities/Cruise Ship Docks – Safety Measures for Significant Influx of Pedestrians (Sitka, Hoonah)

IMPROVING SAFETY IN ALASKA: SAFETY CORRIDORS

- **Designated Safety Corridors**
 - Seward Highway Milepost 90-117 (May 2006)
 - Parks Highway Milepost 44-52.5 (October 2007)
 - Knik Goose Bay Road Milepost 0.6-17.2 (July 2009)
 - Sterling Highway Milepost 83-93 (July 2009)
- **Rural Highways** with elevated fatal and serious injury crashes
- **Designation** = Partnership and Support for Education, Enforcement, Engineering, and Emergency Response
- **De-Designation** with Reconstruction
 - Parks Reconstruction Phase 1-3 complete
 - Knik Goose Bay Phase 1 substantially complete, Phase 2 FFY27
 - Seward Highway Phase 2b FFY25, Phase 3 FFY26, Phase 7 FFY26
 - Sterling Highway FFY26
- **What's next?** Urban Safety Corridors



- 3/13/2025

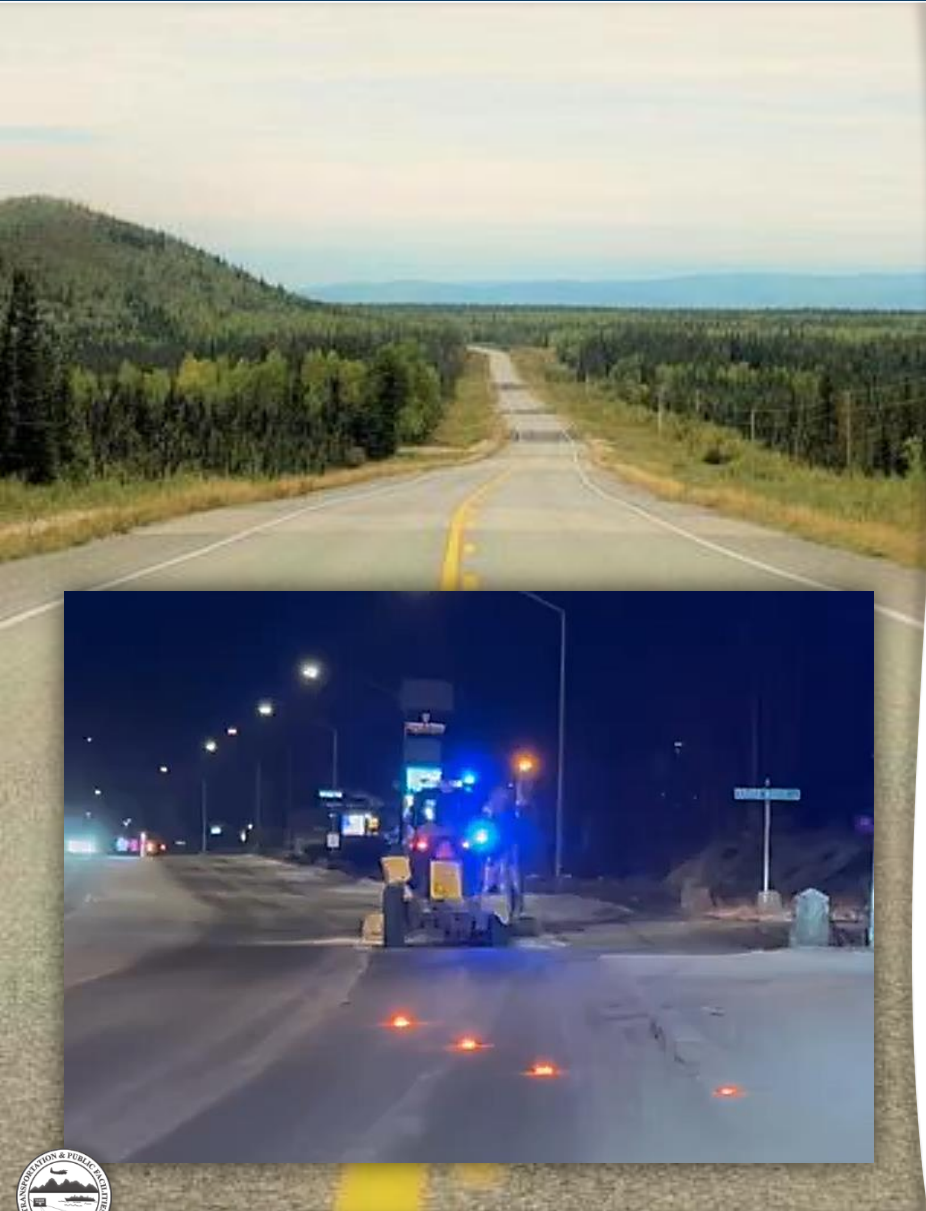


IMPROVING SAFETY IN ALASKA: PROTECTED BIKE LANES PILOT PROJECT

- Phase 1 = Pine & McCarrey Streets
Phase 2 = A St./6th Ave.
- Temporary Materials
- Utilized by approximately 100-150 users during weekdays
- Reduced speeds slightly on A St./6th Ave.
- Did not increase crashes
- Next?
 - No immediate plan for A St./6th Ave.
 - Discussing Lane Drops
 - 2026-2027 Winter Protected Bike Lanes



SAFE SYSTEMS APPROACH: TETLIN TO FT. KNOX



- Established Technical Advisory Committee (TAC) to inform the research
- Commissioned Corridor Study – Kinney Report
- \$1M brush cutting in advance of haul to increase sight distance
- Maintenance Bridge Monitoring Plan
- Winter Maintenance Memorandum of Agreement (MOA)
- Emergency Medical Services (EMS) coordination
 - Jaws of life
 - PiLits (pronounced “Pie lights”)
- 511 upgrades
 - Audible bus & plow alerting
 - Bridge heights
 - Winter Operations dashboard

PROGRAMS: MEASUREMENT STANDARDS AND COMMERCIAL VEHICLE COMPLIANCE

The goal is to reduce commercial motor vehicle-involved accidents, fatalities, and injuries through a consistent, uniform, and effective safety program.



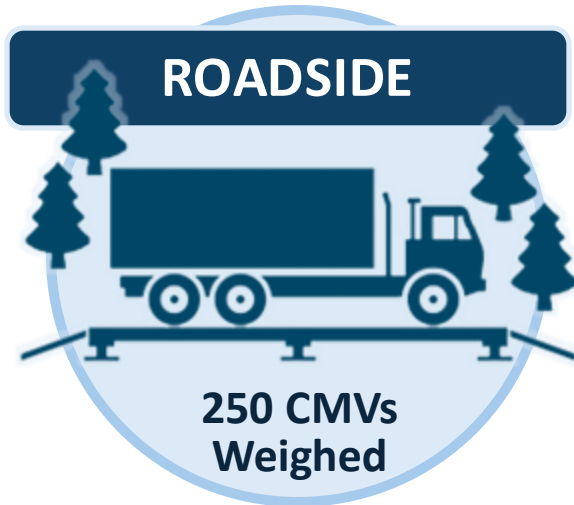
Nine Weigh Stations Statewide

- Fairbanks (4 stations) – 6 filled PCNs
- Anchorage (3 stations) – 10 filled PCNs
- Tok (1 station) – 4 filled PCNs
- Sterling (1 station) – 3 filled PCNs

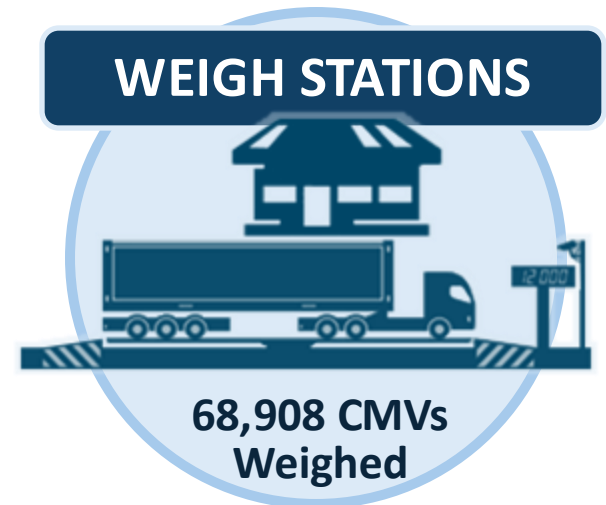


MEASUREMENT STANDARDS AND COMMERCIAL VEHICLE COMPLIANCE

FFY2024 – SAFETY EFFORTS



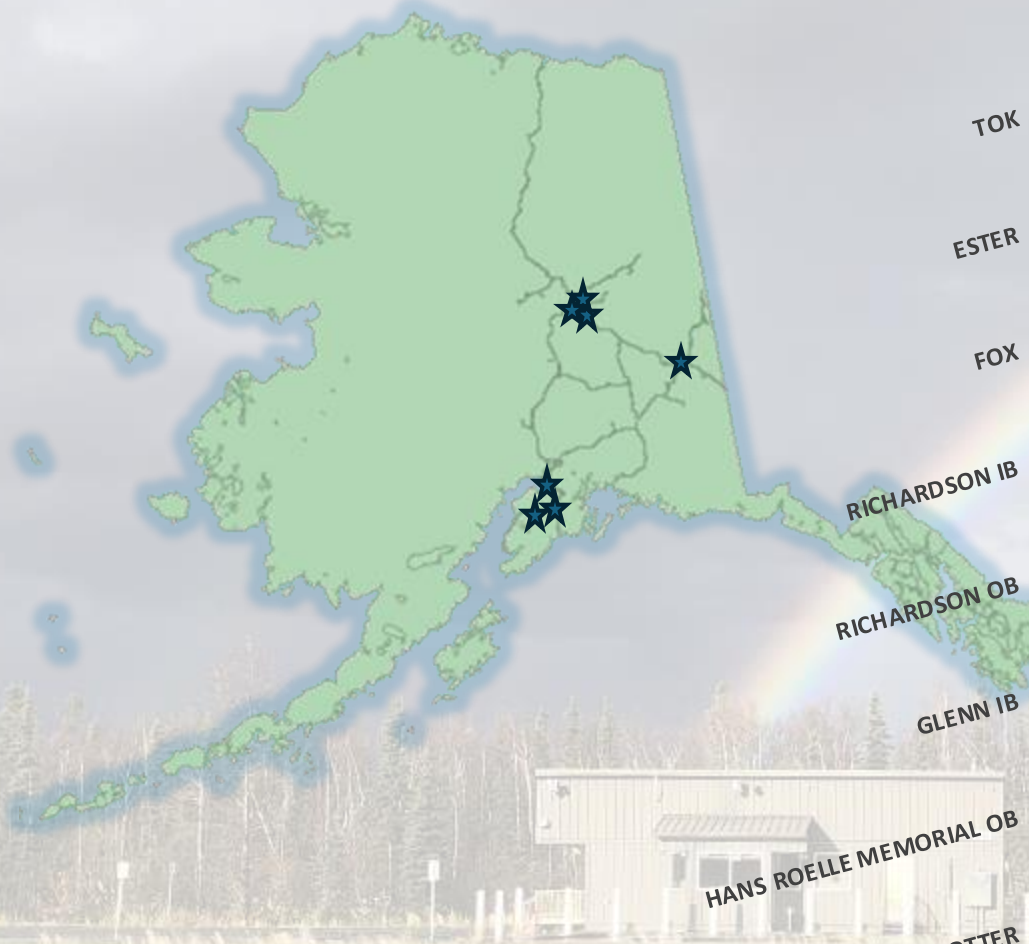
Weight Compliance
Rate = 97.3%



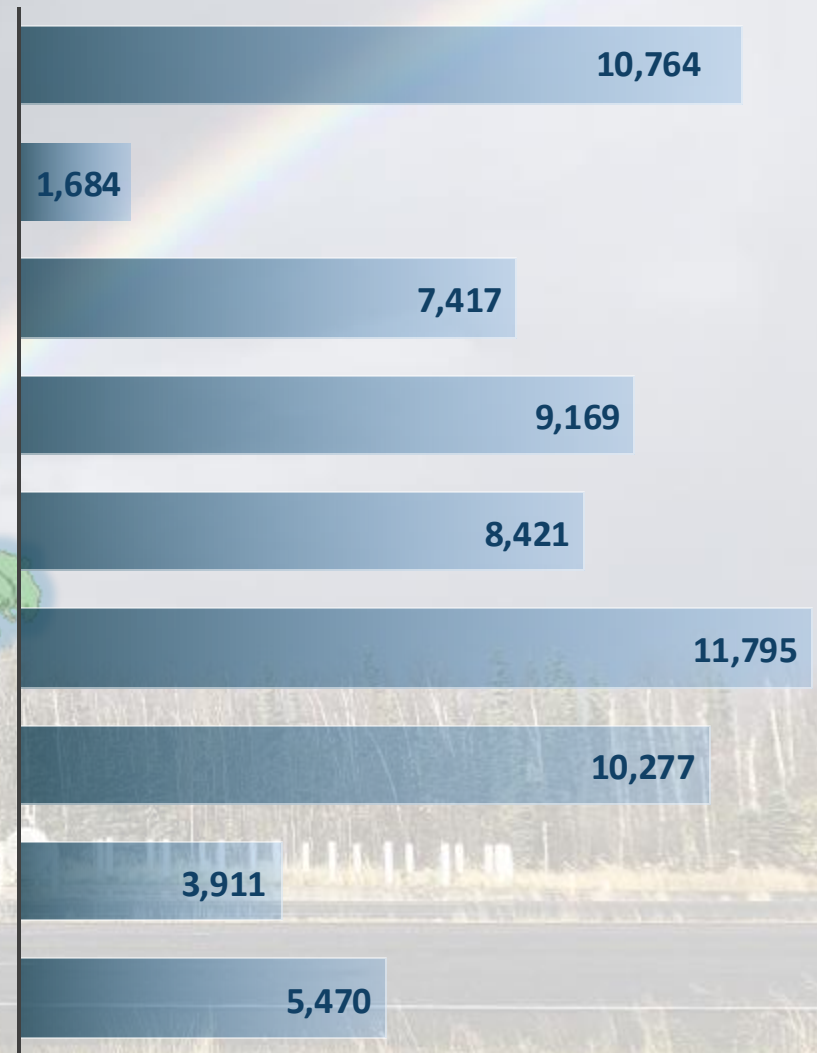
Of the **8,310** Driver/Vehicle Safety Inspections, **82%** of the vehicles and **98%** of the drivers inspected did not have any out-of-service violation.

MEASUREMENT STANDARDS AND COMMERCIAL VEHICLE COMPLIANCE

VEHICLES WEIGHED PER STATION

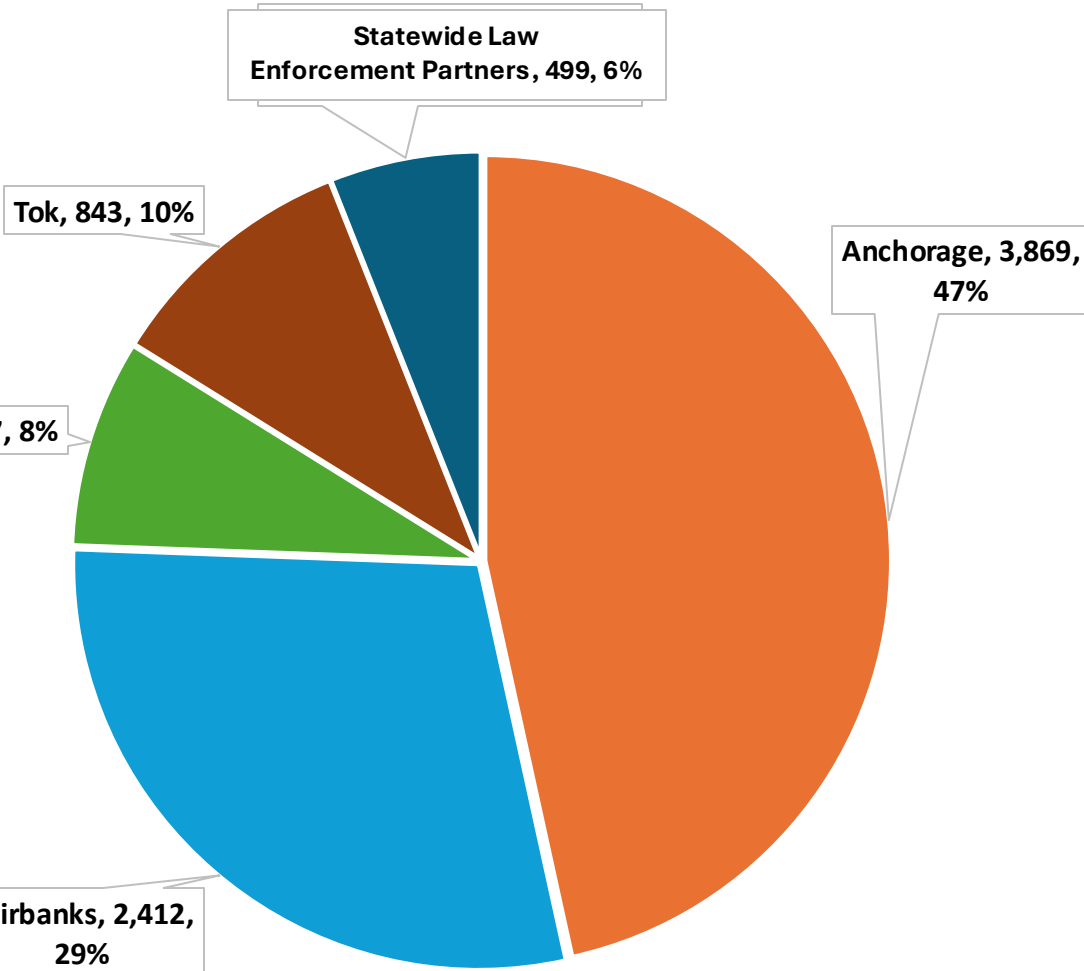


TOK
ESTER
FOX
RICHARDSON IB
RICHARDSON OB
GLENN IB
HANS ROELLE MEMORIAL OB
POTTER
STERLING



MEASUREMENT STANDARDS AND COMMERCIAL VEHICLE COMPLIANCE

Driver/Vehicle Safety Inspections by Area



THANK YOU

Pam Golden, P.E., State Traffic & Safety Engineer
Shannon McCarthy, DOT&PF Communications Director
Dan Smith, Director, Measurement Standards and Commercial Vehicle Compliance

Alaska Department of Transportation & Public Facilities
DOT.Commissioner@alaska.gov

