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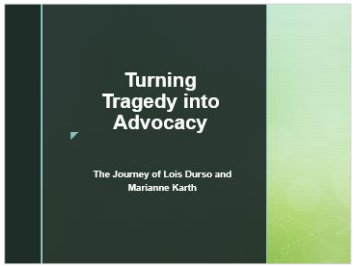
Lisette Camilo
Commissioner
NYC Department of Citywide Administrative Services


BIC Safety Initiatives
FOR THE TRADE WASTE INDUSTRY

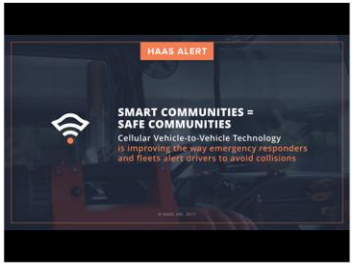

NYC Fleet, Vision Zero Forum
November 14, 2017
New York City Department of Citywide Administrative Services


Turning Tragedy into Advocacy
The Journey of Lois Durso and Marianne Karth


Together for Safer Roads (TSR)


Vision Zero – The Basics
2017 VISION ZERO FLEETS SAFETY FORUM
TRAFIKVERKET
SWEDISH TRANSPORT ADMINISTRATION

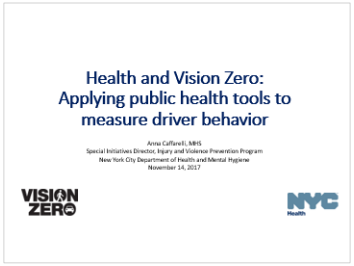

Technology: The Future of Safer Fleets
11.14.17
Ashlyn Kress – AT&T Director of Business Development
Internet of Things - Fleet Solutions


HAAS ALERT
SMART COMMUNITIES = SAFE COMMUNITIES
Cellular Vehicle-to-Vehicle Technology

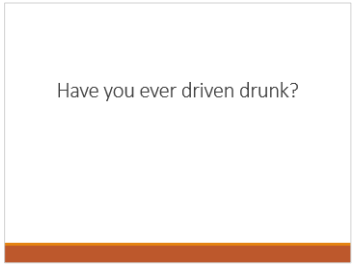

FLEETGUIDE
Advanced Safety For Legacy Vehicles
Angus Pacala, Co-Founder & CEO
OUSTER


TOGETHER FOR SAFER ROADS
Technology: The Future of Safer Fleets
Kary Schaefer
General Manager, Product Marketing and Strategy
Daimler Trucks


AIG
Managing Risk:
Fleet Safety for the Long Haul


Health and Vision Zero:
Applying public health tools to measure driver behavior
VISION ZERO
NYC Health


Just Drive
TAKE ACTION AGAINST DISTRACTION
Presented by
Linda Hill, MD, MPH
Professor, Department of Family Medicine and Public Health
University of California, San Diego
UC San Diego SCHOOL OF MEDICINE
TREDS


Have you ever driven drunk?


Making roads safer by making drivers better
Cambridge Mobile Telematics
www.cmtelematics.com


UPS Driver Safety Training


D55
Virtual Reality Training And Driver Safety
Defcon 5 Studios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Commissioner

NYC Department of Citywide Administrative Services


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BIC Safety Initiatives

FOR THE TRADE WASTE INDUSTRY

About BIC

Trade Waste

Hunts Point Produce Market

Fulton Fish Market

Wholesale Meat Market

Trade Waste Industry

Trade Waste

Construction & Demolition Debris

Self-Haulers

Trade Waste Brokers

Trade Waste Industry

- In 1995, following a 5-year investigation, the Manhattan DA's Office brought a 114-count indictment against 17 individuals and 23 private carting companies.
- The indictment asserted that NYC's private carting industry had been controlled by the mafia since the city opened up commercial garbage routes in 1957.
- Among those indicted were capos and soldiers in the Genovese and Gambino crime families.

DAILY NEWS

TRASH PROBE HAULS IN 17 MORGY BUSTS MAY MAKE MOB TIE A HAS-BIN

BY VIRGINIA BREEN
NEW YORK DAILY NEWS Friday, June 23, 1995, 12:00 AM

The mob's brutal stranglehold on the private carting industry has been loosened by a three-year undercover operation that resulted yesterday in charges against 17 people and 23 carting companies, prosecutors said. An undercover cop infiltrated a carting company that was being coerced by the mob cartel and was "the linchpin of the operation," said Police Commissioner William Bratton. The cartel, allegedly run by the Gambino and Genovese crime families, was accused in a 114-count indictment of banding together to choke competition and inflate profits through violence and financial retribution. The indictment charges 17 people with enterprise corruption, restraint of trade and grand larceny. The firms named in the indictment face fines and forfeit of $268 million in assets. "We saw and experienced firsthand how the cartel used its coercive powers and its organized crime connections to insure that no one would challenge their control," said Manhattan District

accepted member of the established criminal enterprise.

ercial garbage industry since 1956, when the city stopped collecting

s are proven, it will result in the greatest reform ever to the entire

e Leslie Crocker Snyder, who presided over yesterday's arraignment.

umer.

g company in the city belonged to one of four trade associations. The

aste Removers of Greater New York and the Queens County Trade

bino soldier, took control of the family's carting empire after former

rder conspiracy. The Kings County Trade Waste Association and the

l by the Genovese family capo Alphonse (Ally Shades) Malangone, and

estigators said. The associations function as a forum for the city's 350

ar buildings. "They are run by a single commandment: Though shalt not

attorney's Rackets Bureau. Those who attempt to compete meet swift

Alphonse "Allie Shades" Malangone

Fulton Fish Market

- 1987 civil suit filed under the Federal RICO Act seeking to take control of the Fulton Fish Market.
- The suit claimed the market area and its union of workers were controlled by the Genovese crime family and subject to extortion, labor payoffs, thefts, illegal gambling, loan-sharking, and violence.

Regulation in NYC

- Following numerous criminal prosecutions and decades of pervasive racketeering, anticompetitive practices and other forms of corruption, the City of New York enacted legislation seeking to regulate those industries most affected by the influence of organized crime.

- Originally named the Trade Waste Commission (TWC), the agency was created when the City Council passed LL 42 of 1996. A November 2001 City Charter ballot measure consolidated the Markets Division of the Department of Small Business Services and the Gambling Control Commission with the TWC into a successor agency, which was renamed the New York City Business Integrity Commission.

- The Commission consists of the commissioners of BIC, NYPD, DOI, DCA, DSNY, and SBS.

Mission

- BIC is charged with combating the influence of organized crime and preventing its return to the industries it regulates.

- BIC has the power and duty to investigate, license, and regulate:
  - the commercial trade waste industry;
  - the businesses that operate in the City's public wholesale markets; and
  - the shipboard gambling industry (inactive in NYC).

- BIC's core mission is to ensure these industries are able to provide services in an open, competitive and fair market.

Safety Resources

Universal Safety Manual

Bi-Annual Safety Symposia

Driver Training Program

Safety Resources

Universal Safety Manual

Phase 1:

Develop Content in Subgroups

November 2016 – August 2017

BIC led the effort to develop content for the Universal Safety Manual.

Phase 2:

Present Content to Larger Group

September 19, 2017

BIC led meeting of the Safety Working Group to present content.

Phase 3:

Release Manual

Winter 2017 – 2018

First edition of the Universal Safety Manual will be made available electronically to all BIC-licensed/registered companies. It will feature easy to use handouts for select topics.

Bi-Annual Safety Symposia

Phase 4:

Next Steps

Winter 2017 – 2018

Continue to develop content for industry consumption through use of videos, safety symposia, and training programs.

Driver Training Program

Safety Resources

Universal Safety Manual

Bi-Annual Safety Symposia

Driver Training Program

1st Safety Symposium

June 16, 2016

Safety Panels:

1) Managing Distractions: Drivers, pedestrians and unexpected events.
2) The 10 Things Drivers Need to Know to Improve Safety.
3) Safety Culture: Everyone has one, but how do you make it an innovative and good one?
4) Correcting Safety Behaviors: Using technology, techniques and experiences to improve safety behaviors at all levels of industry operations.

2nd Safety Symposium

March 22, 2017

Safety Panels:

1) Safety From a Law Enforcement Perspective: Counterterrorism measures.
2) Improving Safety For Drivers and Helpers. Preventing common injuries, handling various waste materials, and teamwork.
3) Effective Communication Tools For Employees, Customers, and at Transfer Stations.

Safety Resources

Universal Safety Manual

Bi-Annual Safety Symposia

Driver Training Program

3rd Safety Symposium

October 24, 2017

Safety Panels:

1) Case Studies: Crashes Involving Private Carters and Lessons Learned.
2) Sharing the Road: A Conversation Among Cyclists, Pedestrians, and Private Carter Drivers.
3) Partnerships between Community and Private Carting Industry.

4th Safety Symposium

March 2018 (anticipated)

Safety Panels:

1) Vehicle Operation Demonstration: Pre/Post Trip Inspection.
2) Vehicle Safety Equipment to Minimize Hazards on the Road.

Safety Resources

Universal Safety Manual	Bi-Annual Safety Symposia	**Driver Training Program**

- BIC is developing a *standardized driver training program*.
- The training will be interactive, personal and engaging.
- The working group is scheduled to meet on November 13, 2017, to develop content for the program.
- BIC expects the driver training program to launch in the Spring 2018.

Inter-Agency Collaboration

- BIC to receive crash notifications.
- BIC has offered to provide NYPD with information regarding BIC licensed/registered companies.

- BIC visited FDNY vehicle simulator and training facilities.
- Conversation with FDNY Chief of Safety.

- BIC attended MTA Vision Zero Training.
- Consulted with MTA safety expert on developing training videos.

- DSNY has participated in safety symposia.
- DSNY is a member of the Safety Working Group and contributor to the Universal Safety Manual.

- Collaboration with TLC on driver training programs.
- TLC has shared post-crash rules & procedures regarding TLC licensed drivers.

- Collaboration with DOT on public safety and outreach materials.
- BIC and DOT are sharing data, statistics, and identifying vulnerable intersections.

- BIC partnered with DCAS and DOT to administer and promote the Vision Zero Side Guard Incentive Program.
- BIC promoted program directly to the trade waste industry through the Trade Waste Advisory Board and various bulletins and notices.

BIC Safety Initiatives

FOR THE TRADE WASTE INDUSTRY

QUESTIONS?


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NYC Citywide Administrative Services | Fleet

NYC Fleet, Vision Zero Forum

November 14, 2017

New York City Department of
Citywide Administrative Services

VISION ZERO

Vision Zero Year Three

Executive Summary

2016 had the fewest traffic fatalities on record, improving on a record year in 2015. The first three years of Vision Zero is the safest three-year period in New York City's history.

Vision Zero's progress in preventing serious crashes is encouraging, because it indicates that the City's strategy is working. However, even in the City's safest year there was a fatal crash every 38 hours. New Yorkers are still losing their lives in traffic crashes, and their families and neighbors must grapple with the grief caused by sudden loss. Much remains to be done in order to reach Mayor de Blasio's goal of zero deaths.

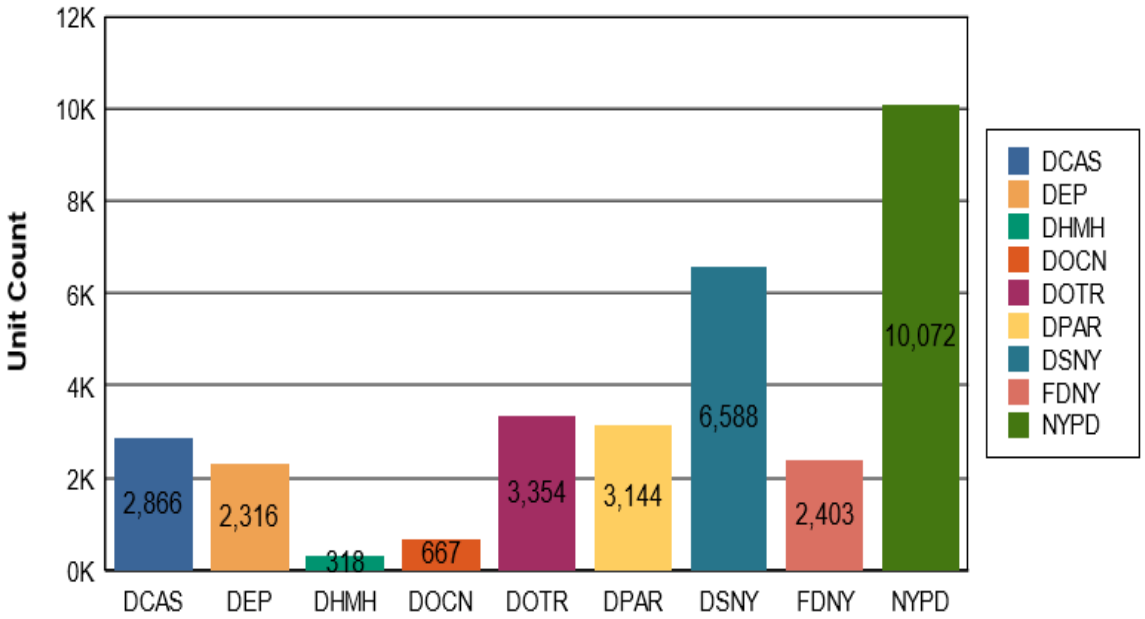
VISION ZERO

NYC Citywide Administrative Services | Fleet

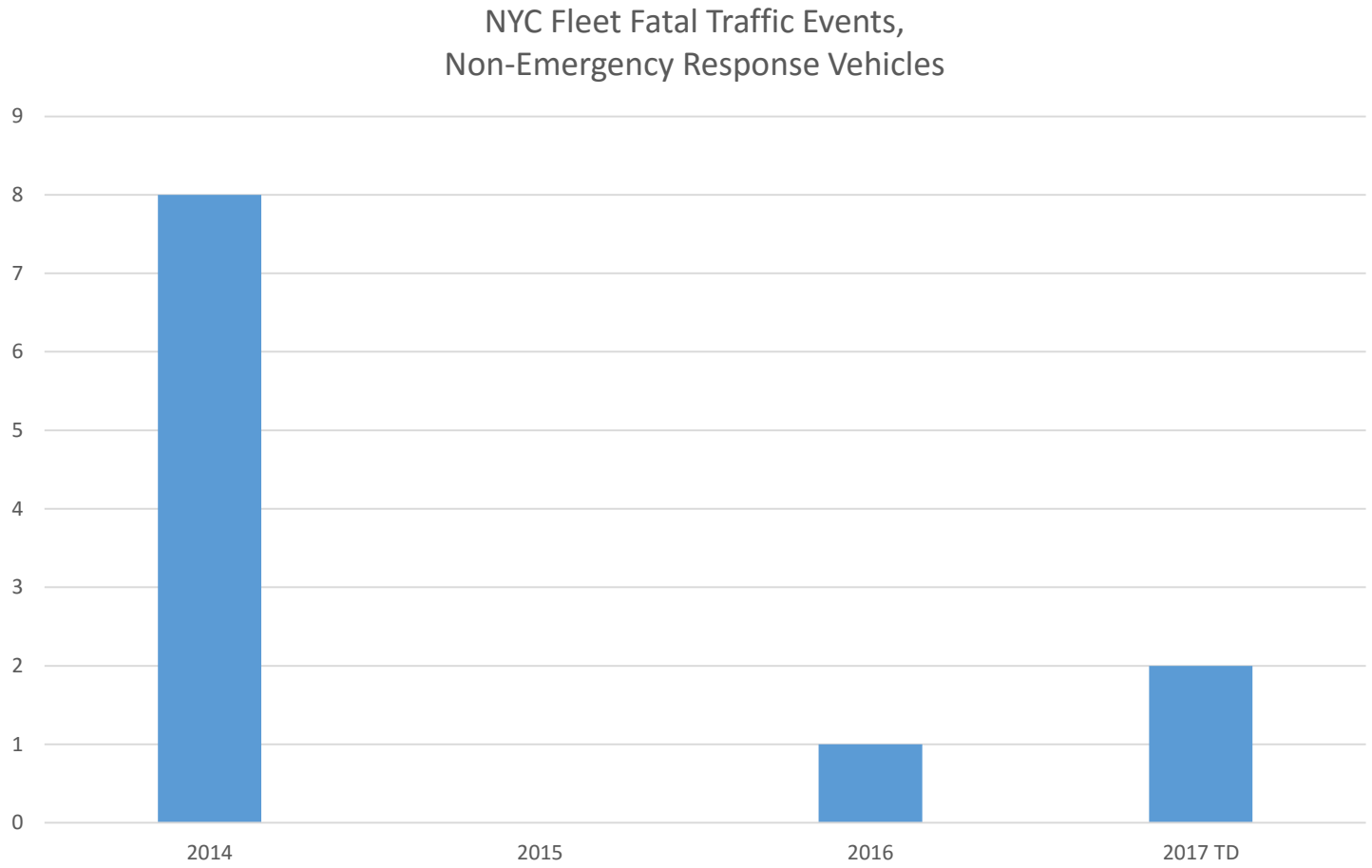
Report Printed: 07/18/2016 07:13:07

Citywide Fleet Roster

Owned Vehicles



VISION ZERO


NYC Fleet Fatal Traffic Events,
Non-Emergency Response Vehicles
9
8
7
6
5
4
3
2
1
0
2014
2015
2016
2017 TD

VISION ZERO

Launching the Safe Fleet Transition Plan

Technology and Process Recommendations

Margo Dawes and Alexander K Epstein, Ph.D.

May 2017
DOT-VNTSC-DCAS-17-01

Prepared for:
Department of Citywide Administrative Services
City of New York

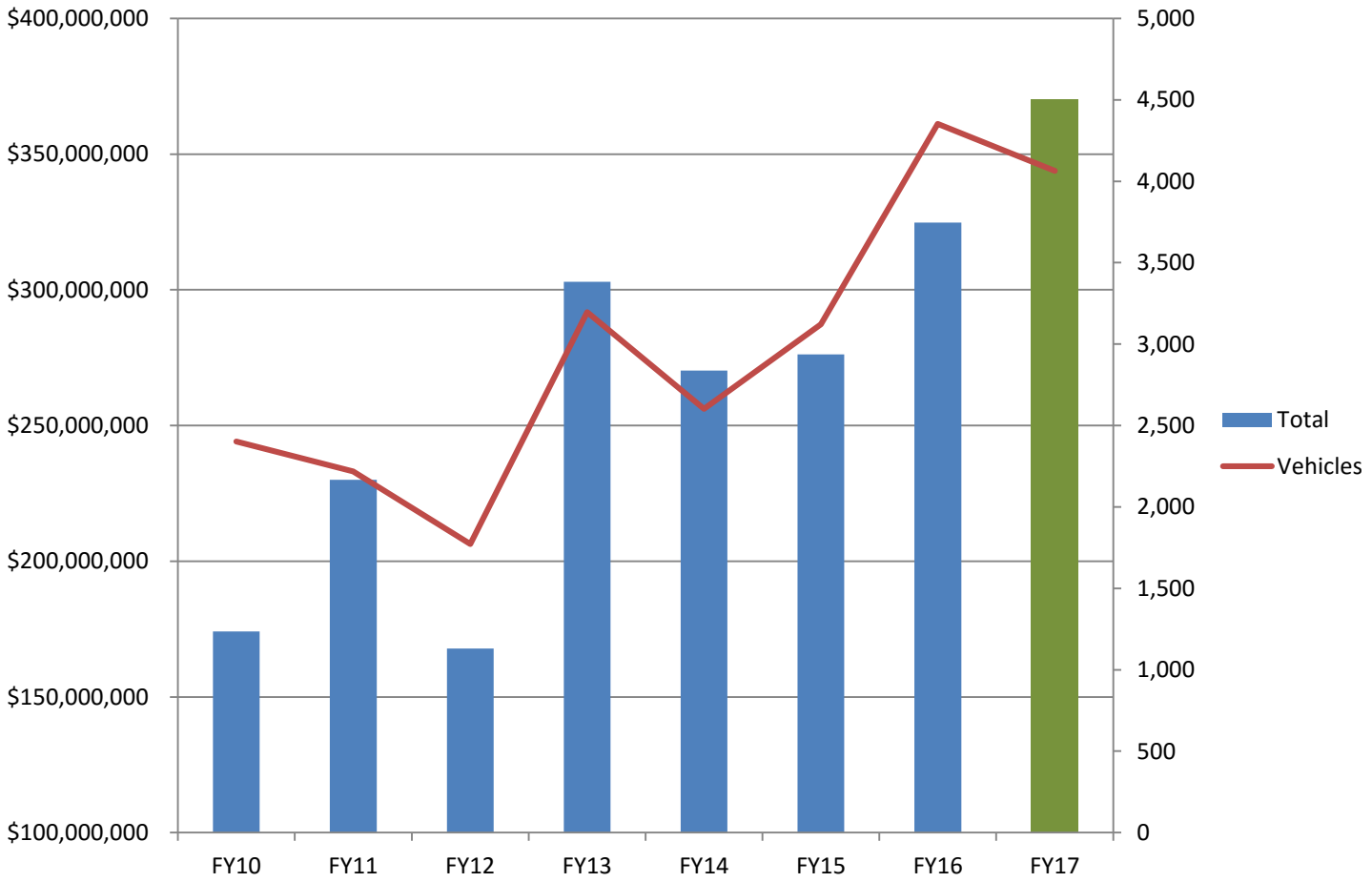
NYC Citywide Administrative Services

U.S. Department of Transportation
John A. Volpe National Transportation Systems Center

Volpe

VISION ZERO

Citywide Fleet Acquisitions



VISION ZERO

Table 1: Recommended initial SFTP technology designations.

Required Technologies	Optional Technologies	
	Best Practice Technologies	Exploratory Technologies
"Shall"	*"Should"*	*"May"*
Additional mirrors/lenses where applicable including Fresnel lenses *	Automatic emergency braking (AEB) for medium- and heavy-duty vehicles (Class 3-8) §	Alcohol touch ignition interlock §
Appropriate technologies and techniques to see behind vehicle, such as but not exclusive to backup cameras	Blind spot monitors	Cell phone physical or app-based lock box/ docking station ignition interlock §
Automatic emergency braking (AEB) for light-duty vehicles (Class 1-2) §	Driver alert systems	Connected vehicle, or vehicle-to-vehicle (V2V), communication technology
Automatic headlights where available	Enhanced seat belt reminder systems (ESBRs)	Seatbelt assurance ignition interlock systems §
Enhanced truck rear underride guards *	High vision truck cabs *	Surround cameras *
Safety lights for work trucks, such as but not exclusive to side-visible turn signals and roadwork lights (amber)	Navigation systems	Turning alarms *
Side underride guards * consistent with Local Law	Power mirrors and heated mirrors *	
Smart backup alarms †	Speed governors * §	
Telematics to enable utilization, collision, speed, and safety reporting, among other uses §	Training in appropriate use of technologies, as needed	
Warning decals *		

Note: * = Only apply to vehicles with gross vehicle weight rating of 10,000 lbs. or greater.
† = Only apply to vehicles with limited or no direct rear vision (e.g., passenger/cargo vans and trucks) and to vehicles with gross vehicle weight rating of 10,000 lbs. or greater.
§ = Only apply to non-emergency response vehicles

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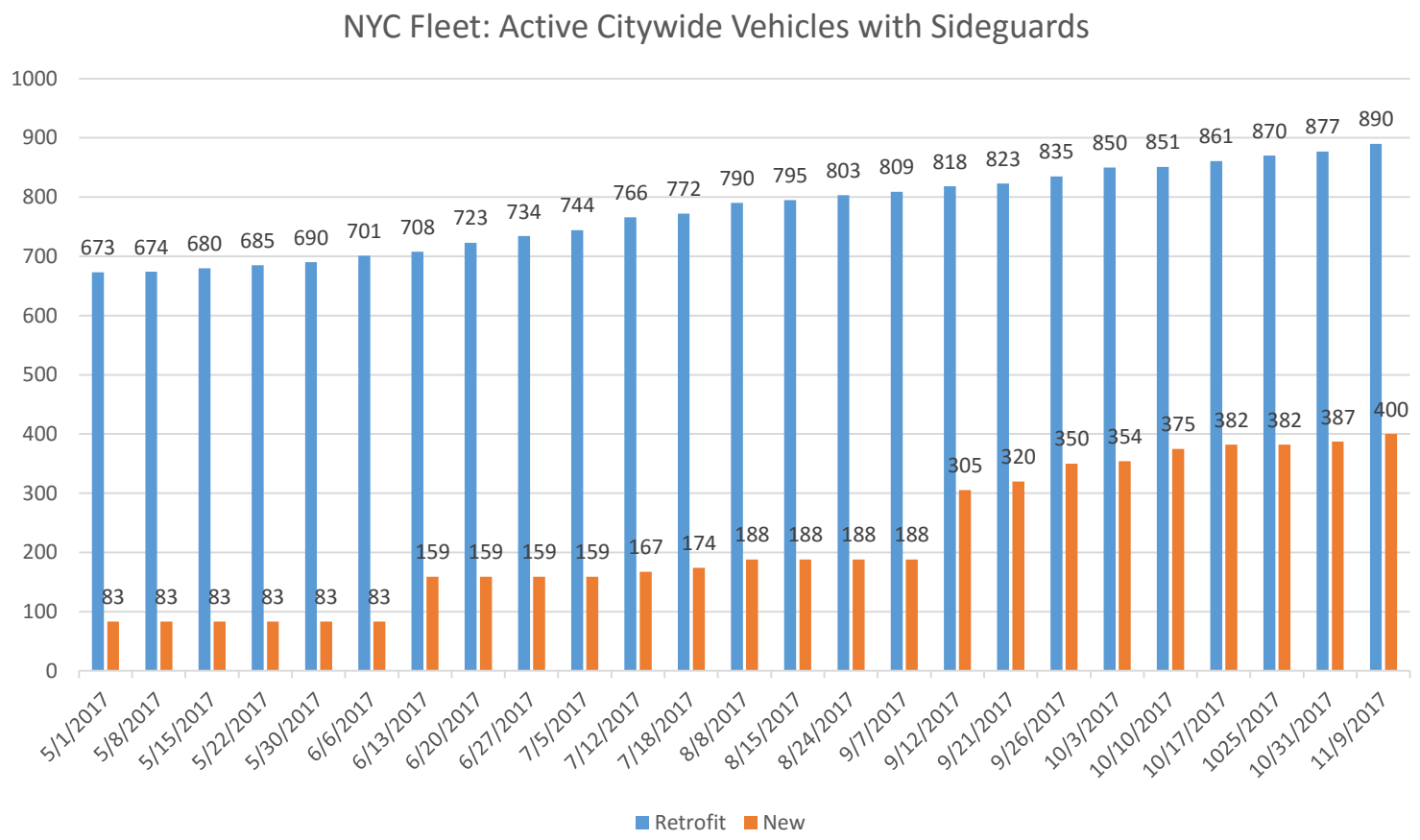

NYC Fleet: Active Citywide Vehicles with Sideguards
1000
900
800
700
600
500
400
300
200
100
0
673 674 680 685 690 701 708 723 734 744 766 772 790 795 803 809 818 823 835 850 851 861 870 877 890
83 83 83 83 83 83 159 159 159 159 167 174 188 188 188 188 305 320 350 354 375 382 382 387 400
5/1/2017
5/8/2017
5/15/2017
5/22/2017
5/30/2017
6/6/2017
6/13/2017
6/20/2017
6/27/2017
7/5/2017
7/12/2017
7/18/2017
8/8/2017
8/15/2017
8/24/2017
9/7/2017
9/12/2017
9/21/2017
9/26/2017
10/3/2017
10/10/2017
10/17/2017
1025/2017
10/31/2017
11/9/2017
Retrofit
New

VISION ZERO


sanitation
25DN-156 VISION ZERO


BUREAU OF TRAINING

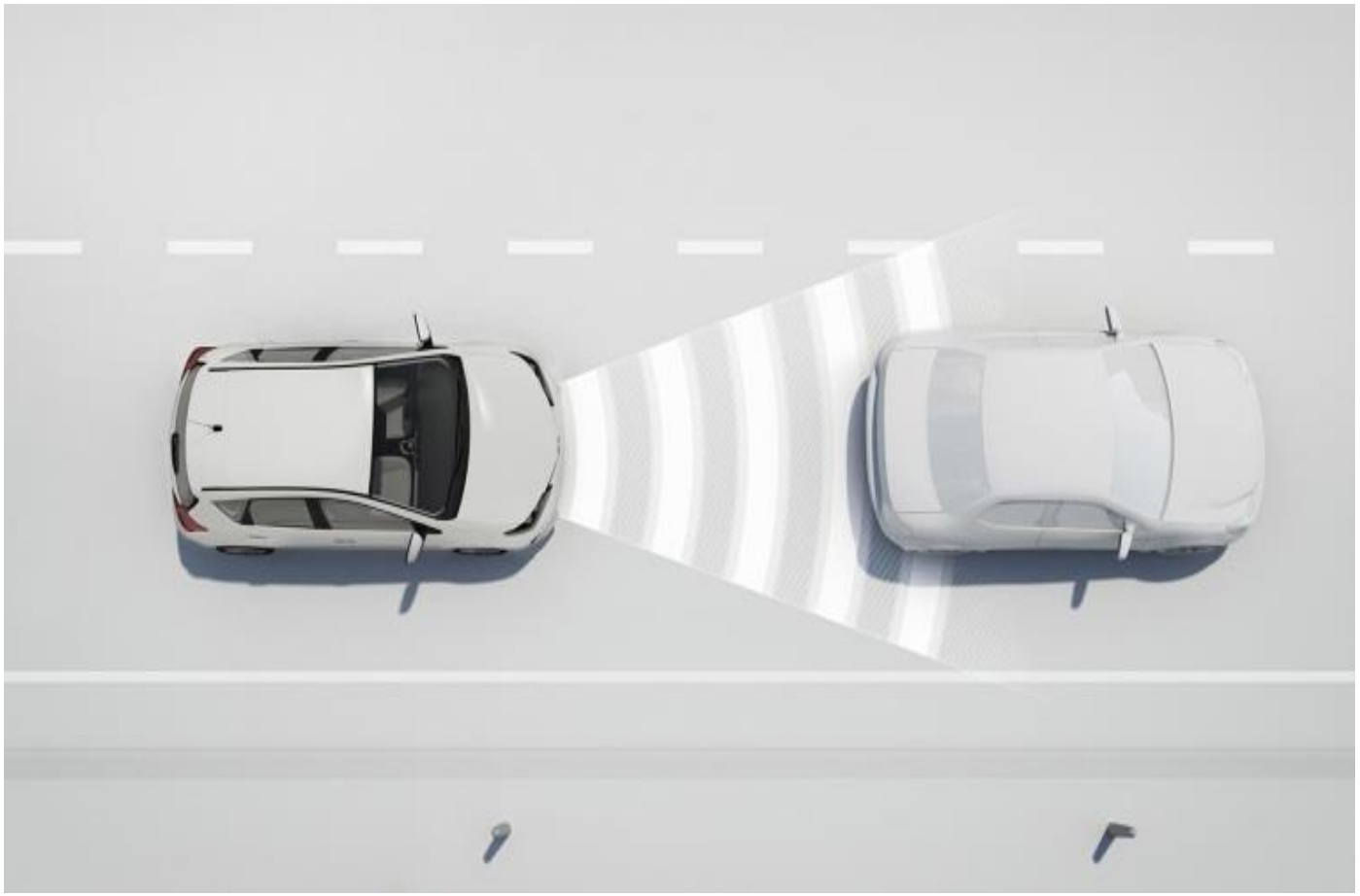

CORRECTION
NEW YORK CITY
NYCD


1100
1100
1100
1100
ULTRA LOW SULPHUR DIESEL


POLICE
NYPD

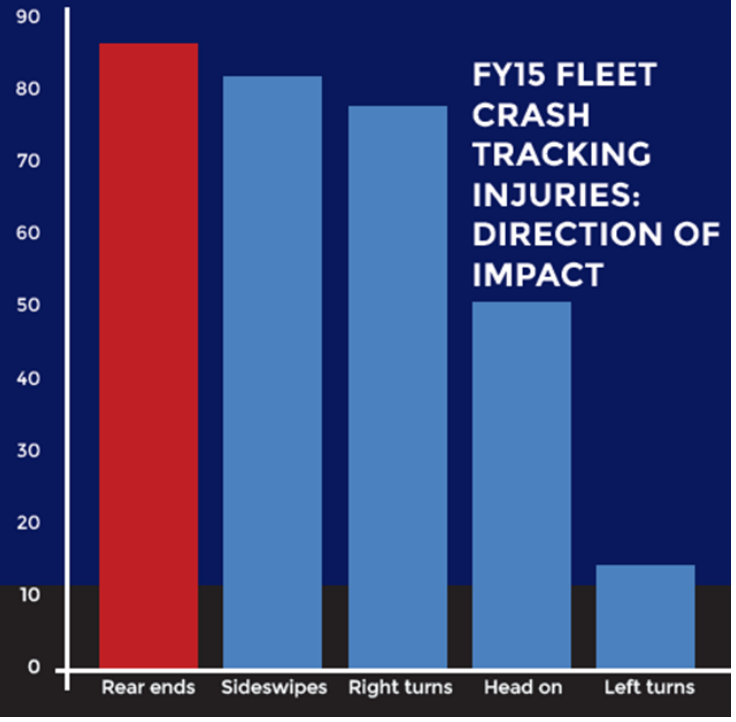

T502
NYC

VISION ZERO



VISION ZERO

THE LEADING CAUSE OF FLEET INJURIES IS REAR-END COLLISIONS. KEEP A SAFE FOLLOWING DISTANCE AT ALL TIMES



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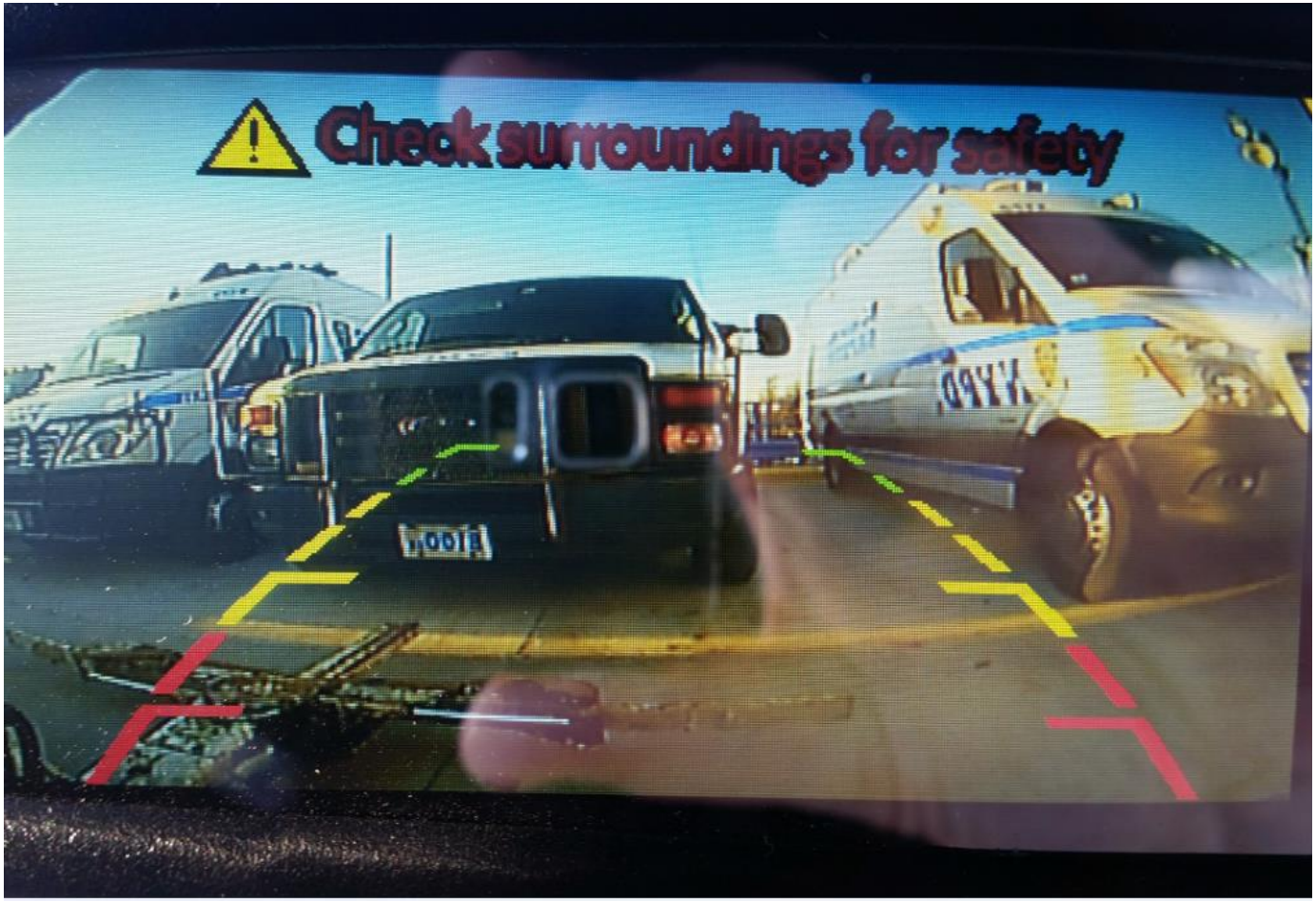

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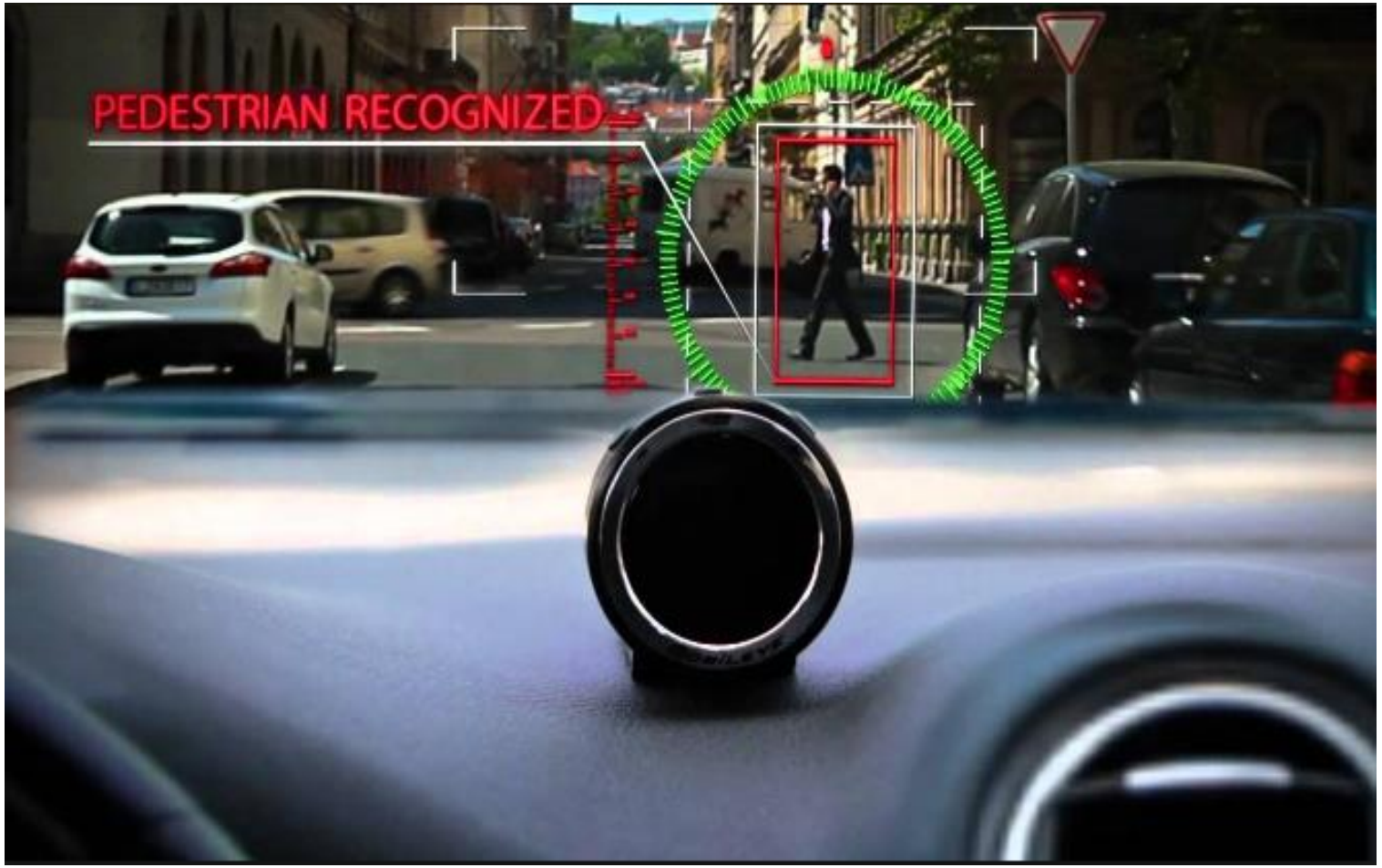
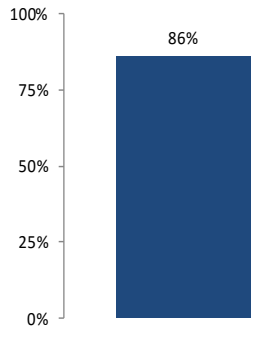


VISION ZERO

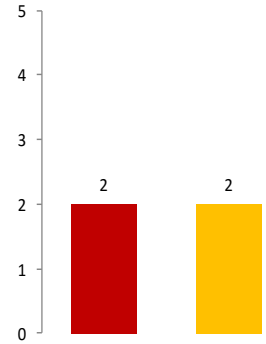
Realtime Tracking

Citywide Administrative Services | Fleet

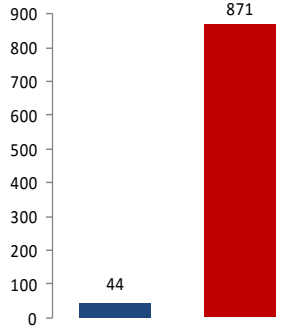
NWF Vehicle Count: 143
Days in Period: 7
Miles Driven: 20,482



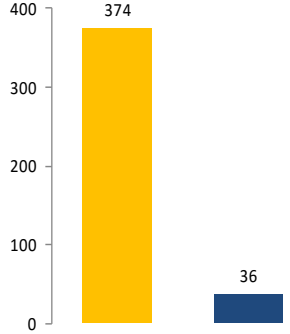
Fleet Usage



Device Disconnections



Usage Outside Five Boroughs



Travel Over Posted Speed Limit

UTILIZATION

Utilized	86%
Unutilized	14%

< VIEW UTILIZATION EVENTS >

ALERTS

Resolved Power Loss	2
Unresolved Disconnect	2

< VIEW ALERT EVENTS >
<VIEW UNRESOLVED ALERTS>

OUT OF CITY

Trips	44
Fuel Transactions	871

< VIEW OUT OF CITY USAGE >
< VIEW OUT OF CITY FUELING >

HIGH SPEED

NYC Speed Violations	374
OOC Speed Violations	36

< VIEW NYC SPEED EVENTS >
< VIEW OOS SPEED EVENTS >

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SAFE DRIVING IS
FOCUSED DRIVING!
NO CELL PHONES
INCLUDING
HANDS FREE
AND NO TEXTING
WHILE DRIVING.
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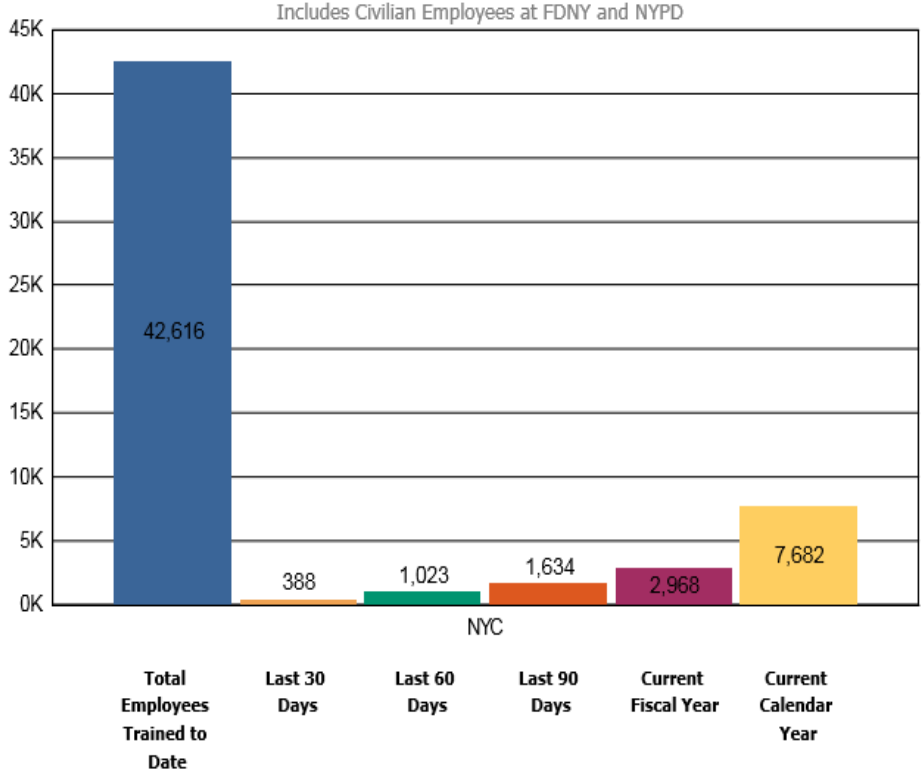
NYC Citywide Administrative Services | Fleet

ALL DEPARTMENTS
Report Printed: 11/09/2017 16:44:30

Employees Trained to Date

Includes Civilian Employees at FDNY and NYPD



VISION ZERO


Make safety features standard
Newer vehicles
Blind spots
Safety lights
Drive defensively
Back-up cameras
Increase training
Reliable repair
Mirrors
Quality preventive maintenance
Built in navigation
Cleanliness
WordItOut

VISION ZERO

NYC Citywide Administrative Services | Fleet

VISION ZERO

THIS CERTIFICATE

RECOGNIZES

Matthew Aronberg

DCAS

for outstanding dedication to Vision Zero as a
Safety and Defensive Driving trainer for city fleet operators.

Awarded this 14th day of November 2017

Lisette Camilo
Commissioner, DCAS

Keith T. Kerman
NYC Chief Fleet Officer

VISION ZERO

Keith Kerman
Chief Fleet Officer
New York City
Deputy Commissioner,
Department of Citywide Administrative Services

kkerman@dcas.nyc.gov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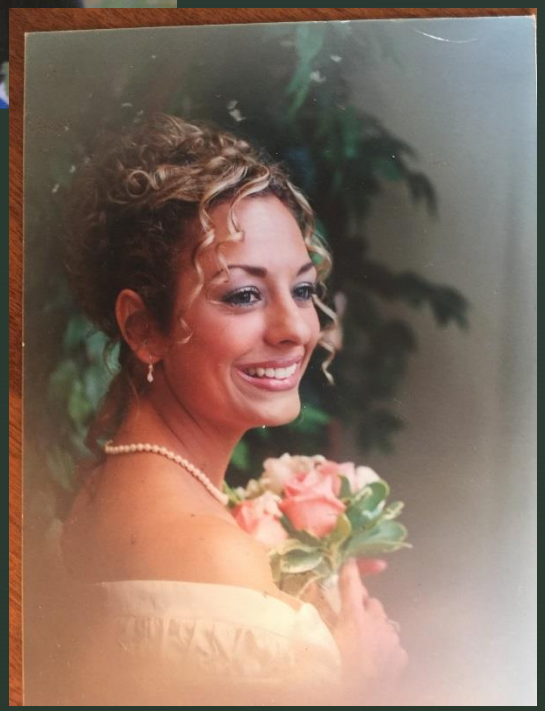
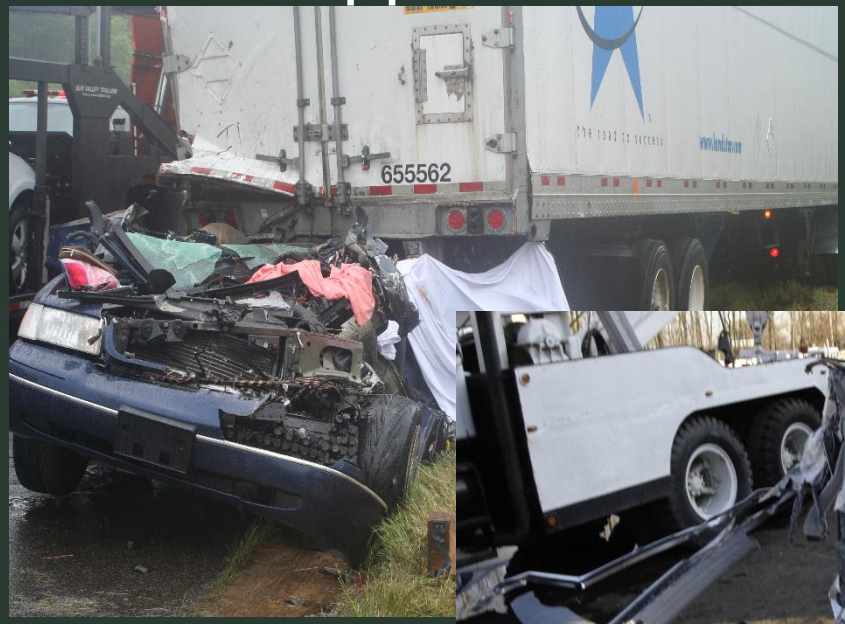
Turning Tragedy into Advocacy

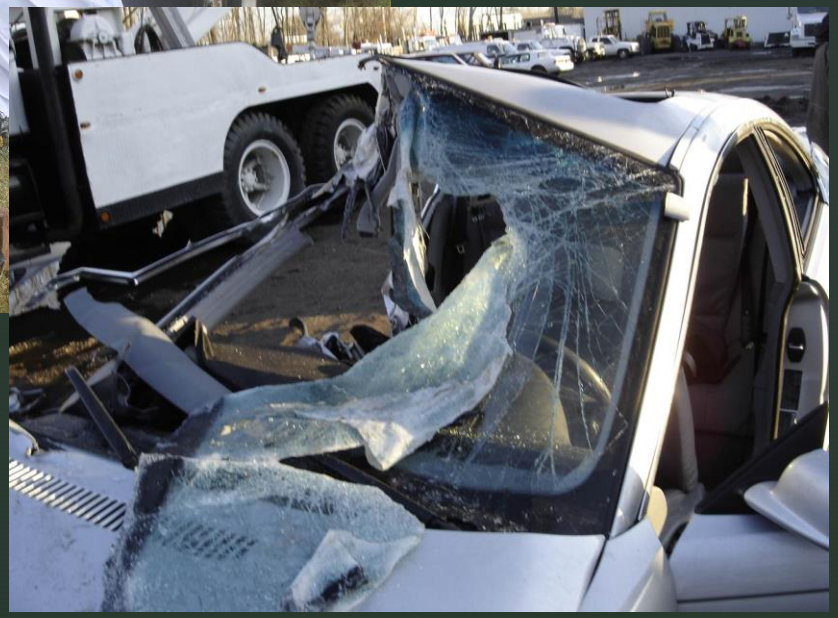
The Journey of Lois Durso and Marianne Karth



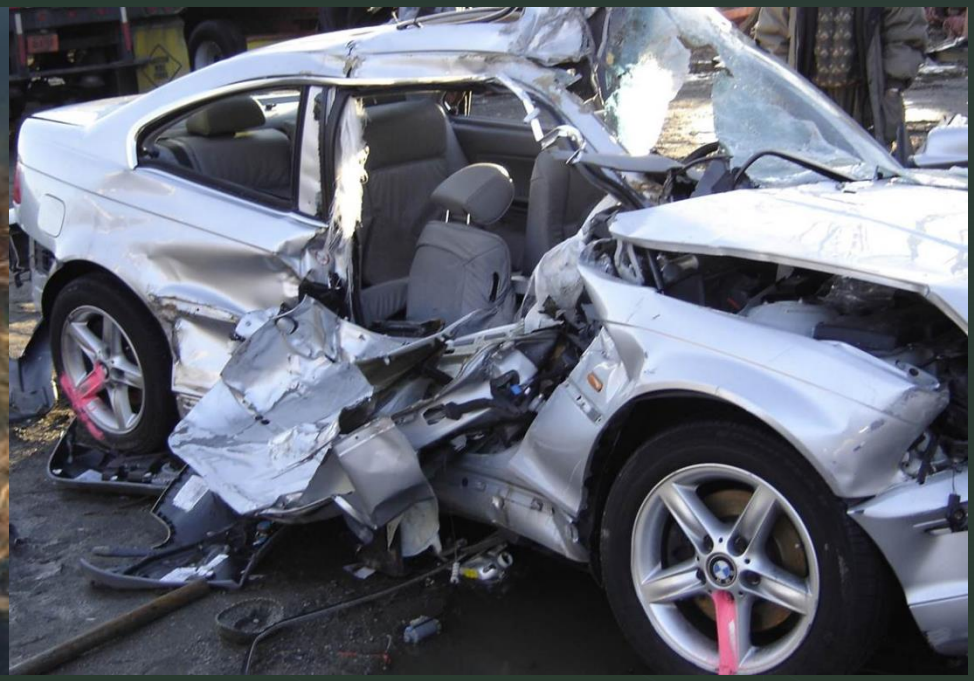
“Grief, I’ve learned, is really just love. It’s all the love you want to give, but cannot. All that unspent love gathers up in the corners of your eyes, the lump in your throat, and in that hollow part of your chest. Grief is just love with no place to go” ~ Jamie Anderson

It Can Happen In An Instant!





This Was Preventable – How Many More Must Die?



This Is NOT A New Problem

DOT, Federal Highway Administration [49 CFR Part 371], [Docket No. 1-11; Notice 2] MOTOR VEHICLE SAFETY STANDARDS Rear Underride Protection; Trailers & Trucks With Gross Vehicle Weight Rating Over 10,000 Pounds

"It is anticipated that the proposed Standard will be amended, after technical studies have been completed, to extend the requirement for underride protection to the sides of large vehicles."

Federal Register, Vol. 34, No. 53 — Wednesday, **March 19, 1969**

Two Recent New York Underride Crashes

Snatched From Life To Death
It Can Happen In An Instant

No More Deaths From Truck Underride … Enough Already!

People Should NOT Die Because Of A Mistake!

INSURANCE INSTITUTE
FOR HIGHWAY SAFETY

Maintenance Is A Matter Of Life And Death

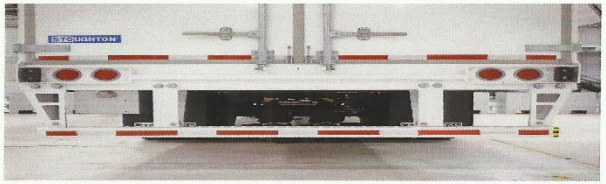
There Are Solutions

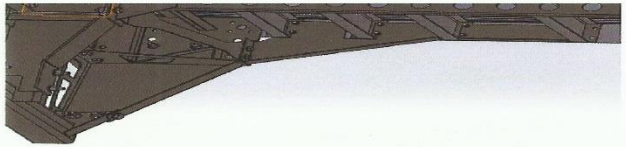
STOUGHTON®
PARTS SALES
Your Make. Your Model. Your Part.

Rear Underride Guard
Aftermarket Retrofit Kit

Stoughton's award winning new rear underride guard provides greater protection to the driving public. Retrofit your trailer to improve safety and reduce potential liability.

HDT 20 TOP PRODUCTS 2017





Item # 28-03670-000-1G

- Material: Galvanized Steel
- Kit includes Bumper Tube, Outer Uprights, Support Brackets & Fasteners
- **Contact Stoughton Parts Sales for compatibility information**

PROTECTS THE DRIVING PUBLIC

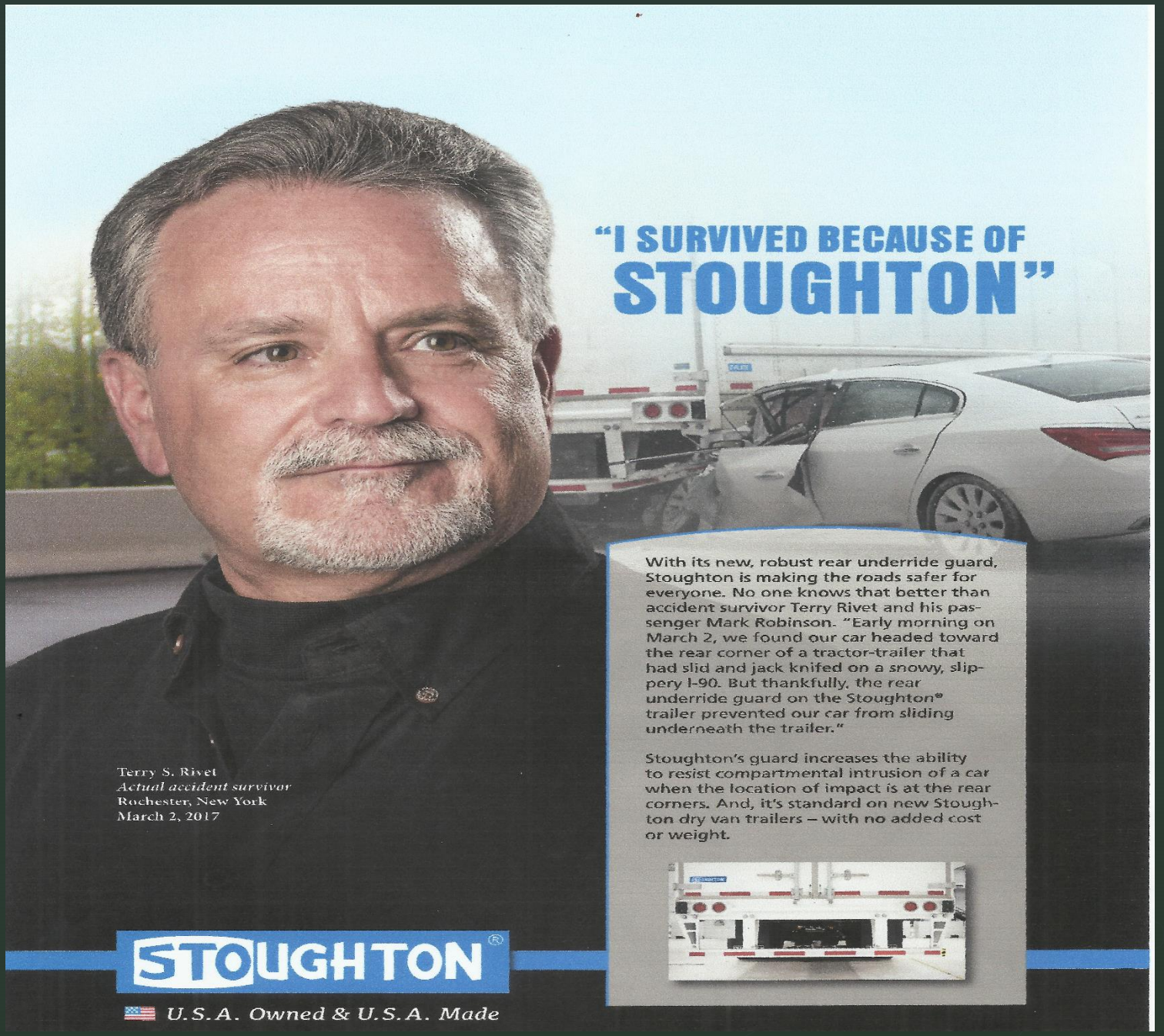
Resists compartmental intrusion of an automobile when the location of impact is at 30% to 100% overlap of the width of the car to the under-ride guard, meeting the testing protocol established by the IIHS. Complies with all applicable U.S. and Canadian regulations.

In a recent report, the NHTSA quoted a study that found that 24% of fatalities were due to corner impact crashes where there was low engagement of the structural members. Stoughton's new rear impact guard has been designed to provide better outboard protection at the corners.

(Source: NHTSA Dec. 2015. 49 CFR Part 571, Docket No. NHTSA 2015 0118 RIN 2127-AL58)

Patent pending

1112 Veterans Rd. Stoughton, WI 53589 | Phone 608.873.2900 | Fax 608.873.2870
www.stoughtonparts.com


"I SURVIVED BECAUSE OF STOUGHTON"
With its new, robust rear underride guard, Stoughton is making the roads safer for everyone. No one knows that better than accident survivor Terry Rivet and his passenger Mark Robinson. "Early morning on March 2, we found our car headed toward the rear corner of a tractor-trailer that had slid and jack knifed on a snowy, slippery I-90. But thankfully, the rear underride guard on the Stoughton® trailer prevented our car from sliding underneath the trailer."
Stoughton's guard increases the ability to resist compartmental intrusion of a car when the location of impact is at the rear corners. And, it's standard on new Stoughton dry van trailers – with no added cost or weight.
Terry S. Rivet
Actual accident survivor
Rochester, New York
March 2, 2017
STOUGHTON®
U.S.A. Owned & U.S.A. Made

Addressing TRUCK UNDERRIDE 1953 to present

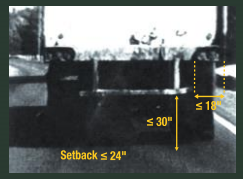

1937 archive photo

Underride has been an issue ever since large trucks and passenger vehicles started sharing the road.

Progress has been sporadic, but recent years have brought some encouraging steps.

1953

First federal underride standard requires guards with 30-inch max ground clearance on combination tractor-trailers and single-unit trucks but includes no strength requirements.



1953 federal standard requirements

1967

June 29
Actress Jayne Mansfield dies in rear underride crash near New Orleans.

1969

National Highway Safety Bureau (precursor to NHTSA) proposes guards with 18-inch max clearance on tractor-trailers and single-unit trucks, predicts side guards will be added after further research.

1971

NTSB recommends NHTSA require energy-absorbing underride and override barriers.

NHTSA abandons 1969 rulemaking.

1972

NTSB urges NHTSA to renew abandoned underride proposal.

1976

IIHS crashes Ford Granada into tractor-trailer with improved, prototype guard that prevents underride.


Prototype guard

Same test with federally compliant guard results in severe underride.

1977


1977 IIHS test

IIHS petitions NHTSA for new rear underride standard.

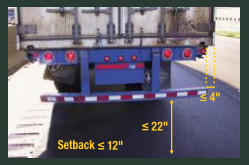
1981

NHTSA issues proposal to upgrade underride protection requirement.

1986

IIHS study shows rear guards designed to prevent underride work well on British rigs.

1996



1998 federal standard requirements

NHTSA issues new standard effective 1998, covering combination tractor-trailers and requiring 22-inch max clearance and 3 quasi-static strength tests.

2004

Transport Canada issues standard after crash tests show U.S. standard is insufficient. Canadian rule approximately doubles strength requirements.


Canadian guard

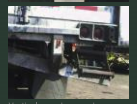

NHTSA guard

2010

IIHS real-world crash study shows common failure modes for guards built to U.S. standards, as well as large number of crashes with trucks exempt from standards.


Failed attachment to trailer


Trailer deck/chassis weakness


Vertical member weakness

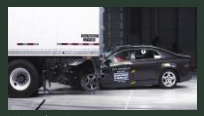

Unsupported end bent forward

2011

IIHS petitions NHTSA for improvements to standard for rear underride protection.

2010-12

IIHS testing shows guards can fail in 35 mph impacts. Guard on Manac trailer is only one from 8 largest manufacturers to prevent severe underride in 30% overlap test.


30% overlap test
Manac

2013

NHTSA releases study "Heavy-vehicle crash data collection and analysis to characterize rear and side underride and front override in fatal truck crashes."

2014

April 3
NTSB urges NHTSA to take action to improve underride guards.

May 5
Marianne Karth and Truck Safety Coalition submit a petition for underride rulemaking.

2015

July 23
In advance notice of proposed rulemaking, NHTSA suggests rear underride guards would not be cost-effective on single-unit trucks.

December 16
NHTSA proposes adopting Canadian underride guard requirements for combination tractor-trailers.


Single-unit truck exempt from NHTSA rear underride guard requirement

2016

Trailer manufacturers including Vanguard, Wabash and Stoughton voluntarily continue to improve underride guard performance in offset crashes.

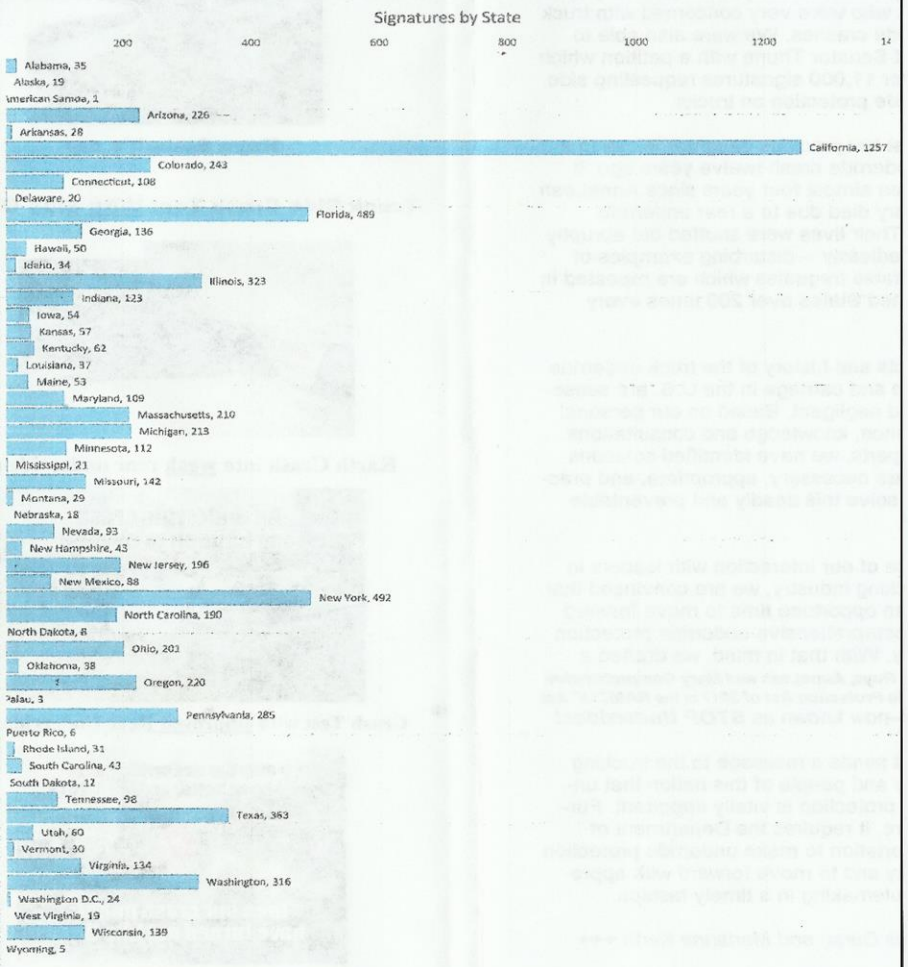
IIHS TOUGHGUARD

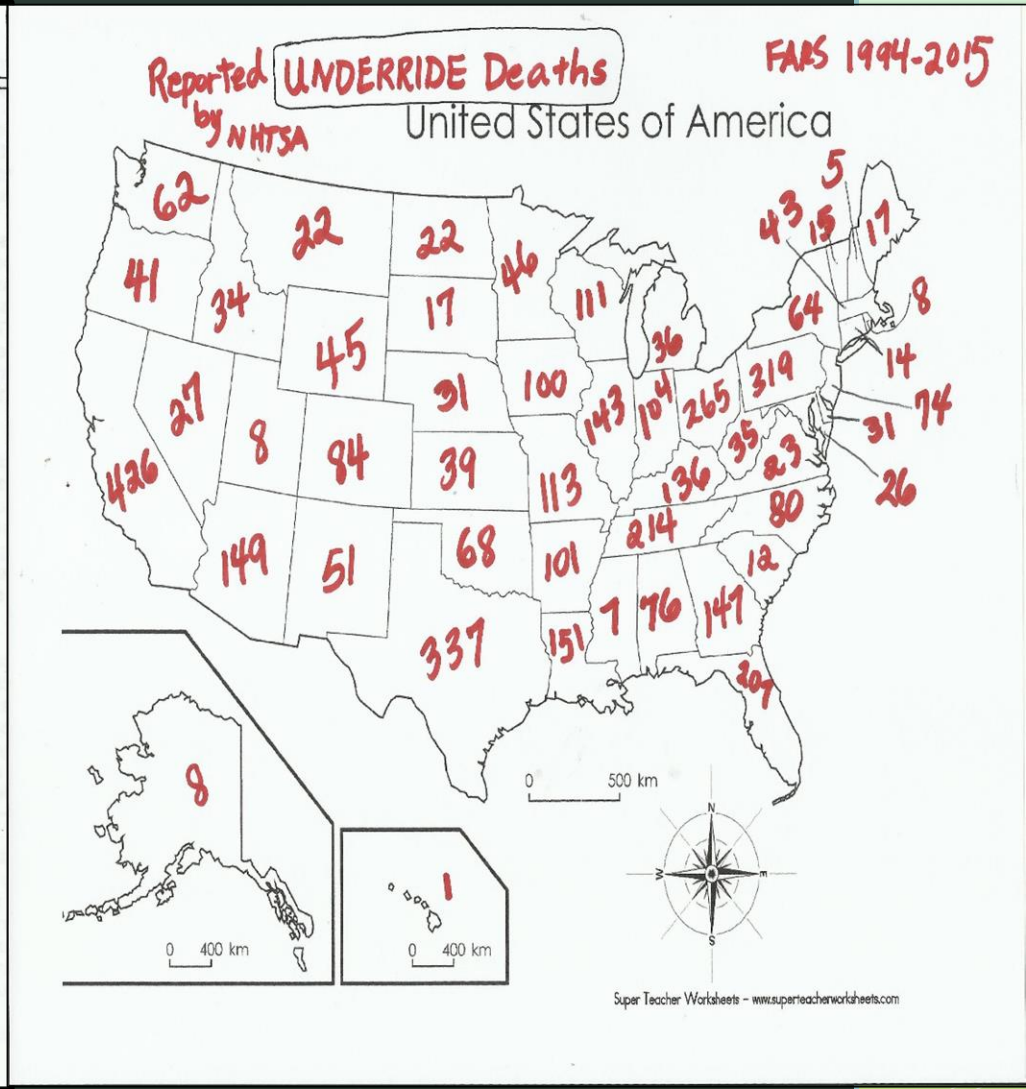
March 1
IIHS introduces an award for manufacturers of trailers that pass all three of its 35 mph tests — full width, 50% overlap and 30% overlap — with no underride.

March 30
IIHS tests the AngelWing, a side underride protection device from Airflow Deflector Inc. The AngelWing successfully prevented underride in a 35 mph crash.

2017

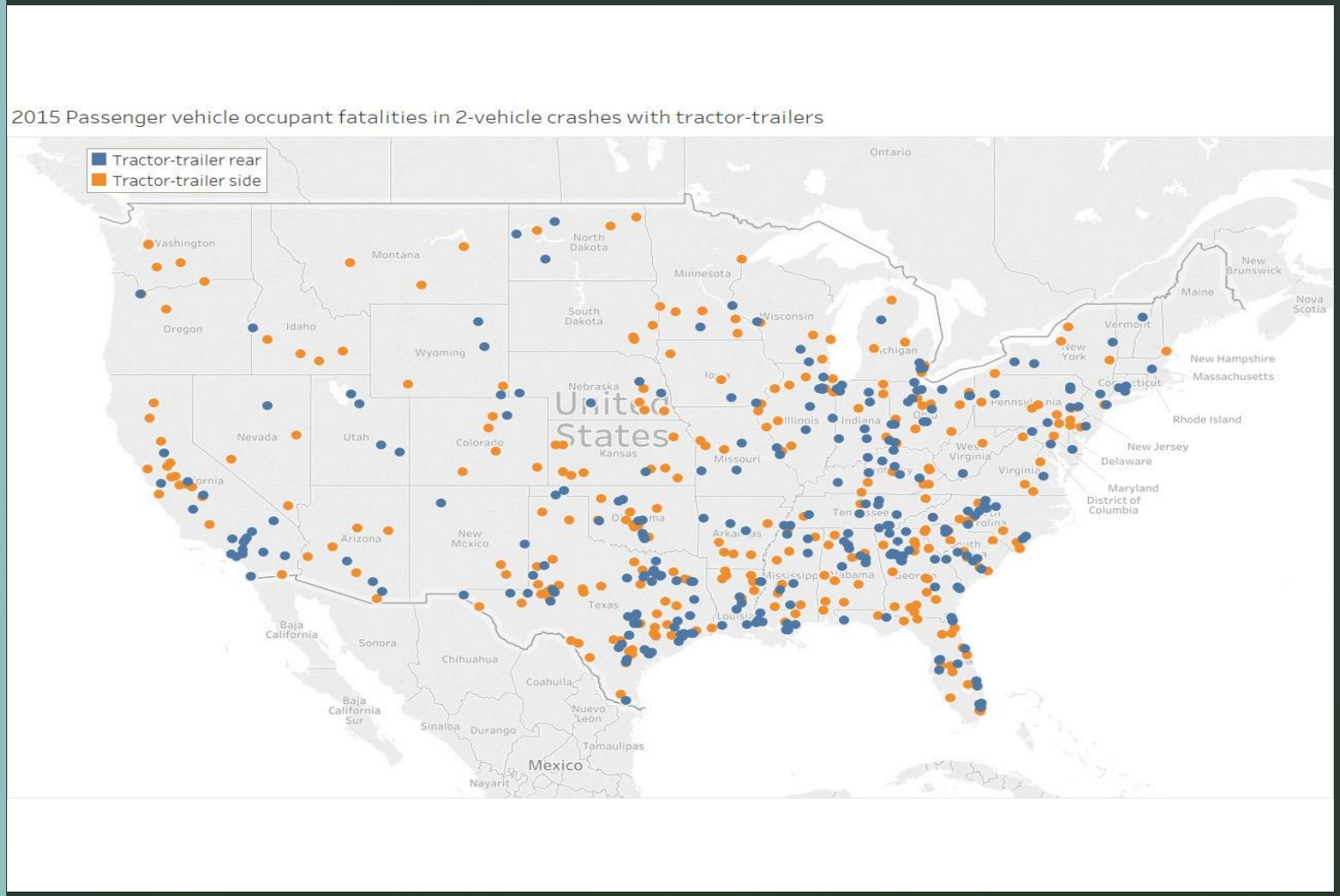
Petition: Mandate Side Guards On Large Trucks To End Deadly Side Underride



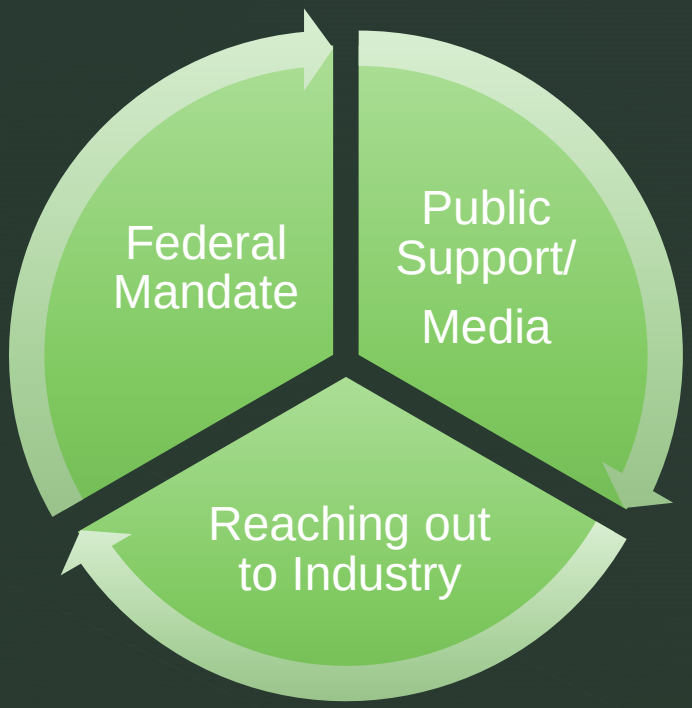


A PICTURE IS WORTH A THOUSAND WORDS

2015 TRUCK REAR AND SIDE FATALITIES IN THE U.S.



A Multi-prong Approach



This Bill Will Save Countless Lives

The STOP Underrides! Act of 2017

This bill outlines standards and specifications for underride protection and incorporates:

- Underride protection at the rear of large trucks.
- Underride protection on the front of trucks..
- Underride protection on the sides of trucks.
- Underride protection on single unit trucks.
- Research for best possible protection.
- Guidelines and enforcement for guard repairs.
- Timeline for rulemaking and enforcement.
- All current bills in conflict become null & void.


Let's mandate side guards--unless we want people to die.
ROYA CHRISTINE SADIGH
JUNE 19, 1978
NOVEMBER 24, 2004
Roya
Now if we have died with Christ we believe that we shall also live with Him. Rom. 6:8
Where, O death, is your victory? Where, O death, is your sting? But thanks be to God, He gives us victory through our Lord Jesus Christ. I Cor. 15:55a, 57
imgflip.com

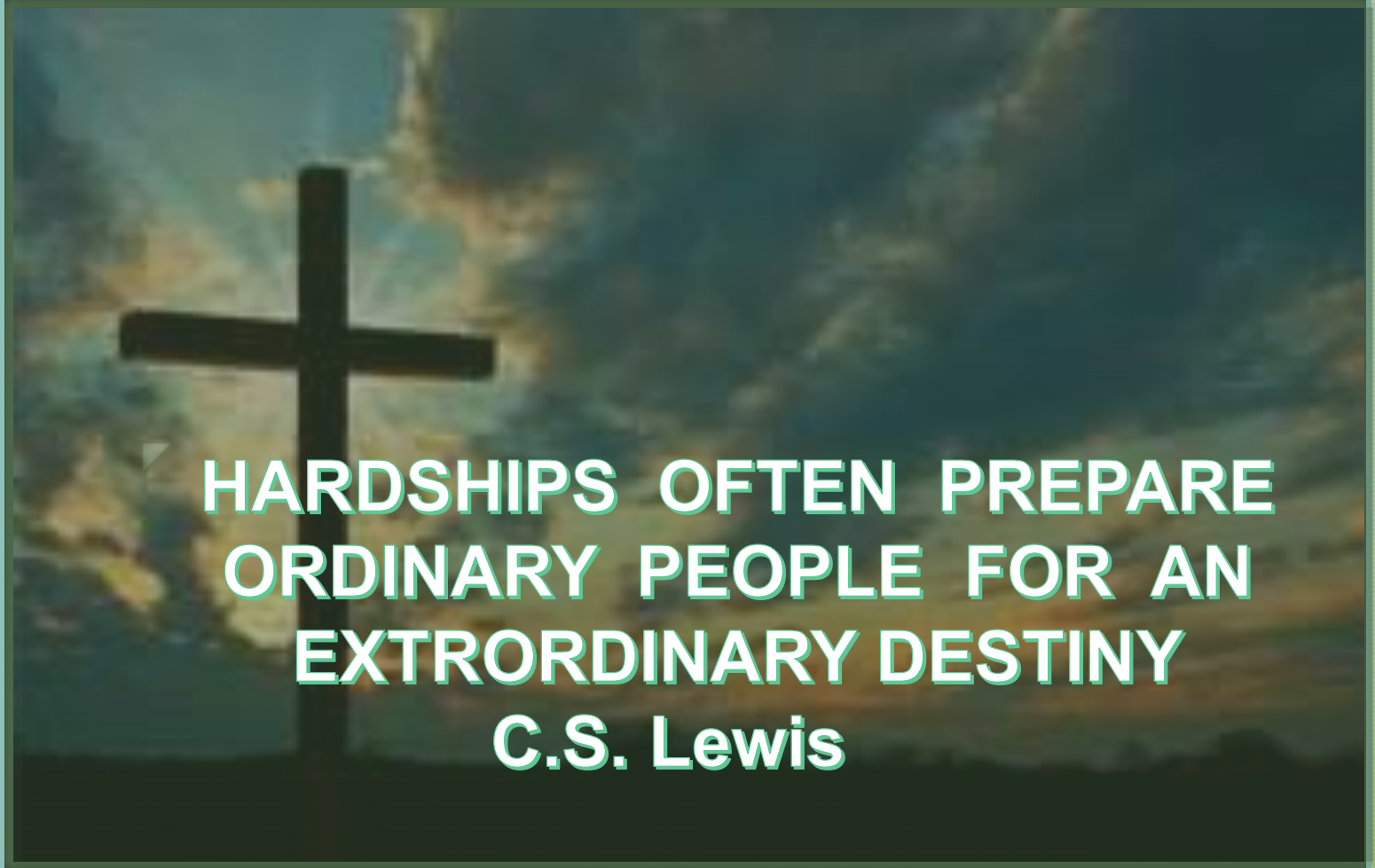

Defective Truck Design
Victims Never Make It Home
KARTH
Behold, the Lamb of God
ANNALEAH
MAY 15, 1995
MAY 4, 2013
MARY LYDIA
AUG. 6, 1999
MAY 8, 2013
imgflip.com

We Have Two Choices

Pass Underride Legislation

or

Let People ContinueTo Die


HARDSHIPS OFTEN PREPARE ORDINARY PEOPLE FOR AN EXTRORDINARY DESTINY
C.S. Lewis

Thank You Senator Gillibrand!

Thank You Senator Rubio!

Thank You Congressman Cohen!

How Can YOU Help?

- Sign online Petition on our websites
- Contact your representatives once bill is introduced in support of truck underride protection
- Tell your family and friends to reach out their legislators
- We will post additional information on our websites frequently
- Sign up for email notifications for updates
- Visit our websites:
- www.stopunderrides.org
- www.annaleahmary.com
- Please visit our table for additional information on underride from IIHS and our business cards
- Thank You!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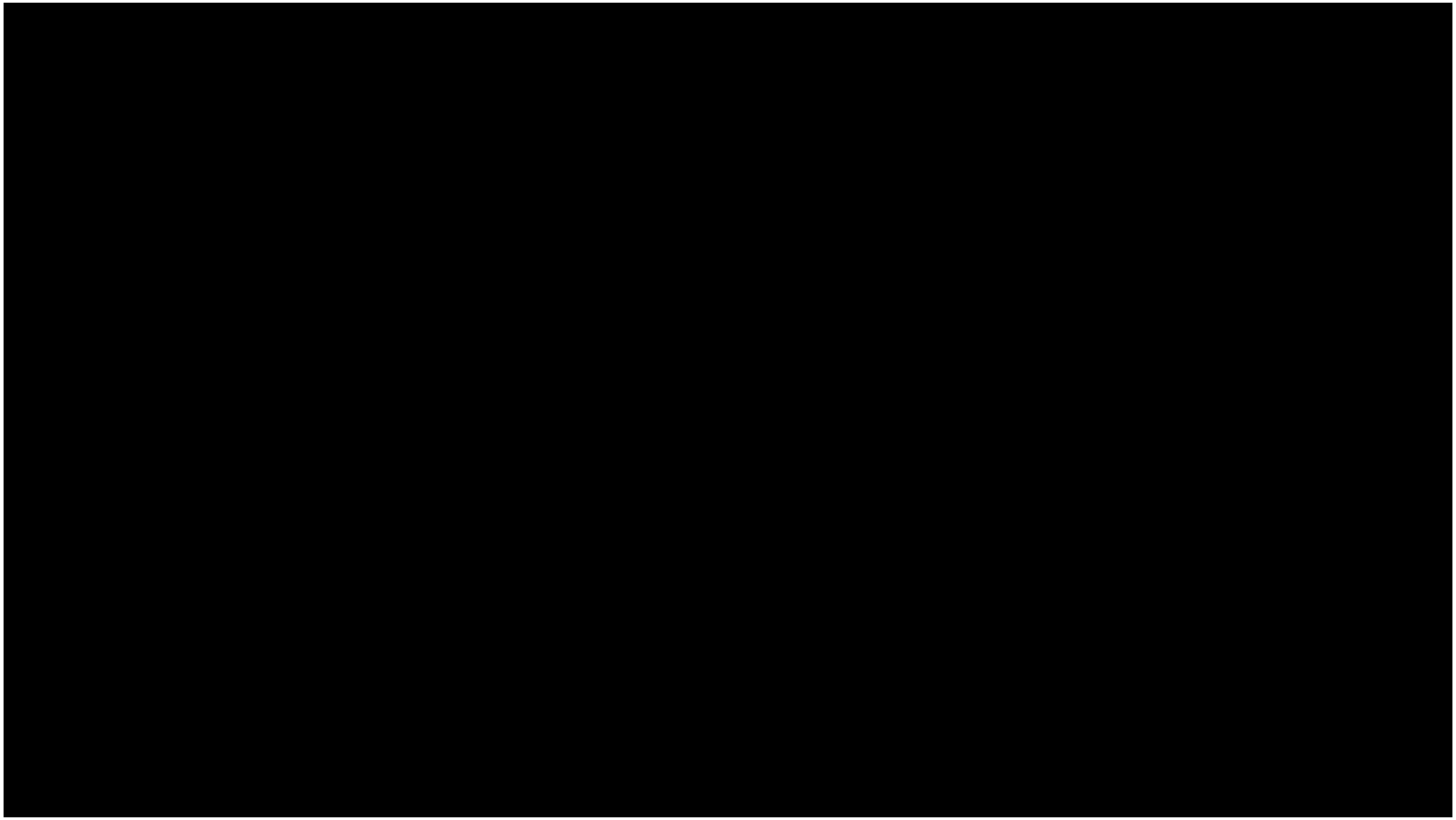
Together for Safer Roads (TSR)

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Vision Zero – The Basics

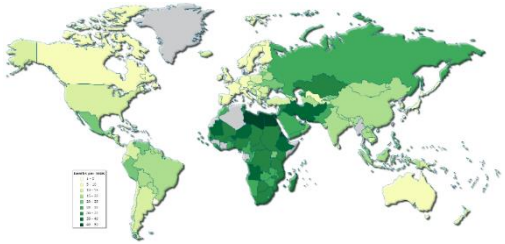
2017 VISION ZERO
FLEETS SAFETY FORUM

Anders Lie
Specialist, Trafikverket

TRAFIKVERKET
SWEDISH TRANSPORT ADMINISTRATION

The road transport system is an open and complex system that is killing many people

- 1.25 Million Globally
- EU – 25 500
- USA – 37 500



Source: Index Mundi

The Vision Zero - Swedish Parliament 1997

- Long term target is that no one should be killed or receive long term disability
- Injury outcome instead of crashes
- Holistic approach in which system designers play an important role
- Tolerance to human failures

The Vision Zero European Commission 2011

"By 2050, move close to zero fatalities in road transport. In line with this goal, the EU aims at halving road casualties by 2020. Make sure that the EU is a world leader in safety and security of transport in all modes of transport."

UN Global Goals 2015

"By 2020, halve the number of global deaths and injuries from road traffic accidents"

THE GLOBAL GOALS
For Sustainable Development

There is a million reasons why we crash,
and more than 90% are related to human errors

A safe system support the driver and absorbs errors and mistakes

Vision Zero Safety Philosophy

1. Severe injuries not crashes
2. People make errors, mistakes and misjudgements
3. Humans have a biomechanical tolerance
4. Energy control is key
5. Eliminations is the target (backcasting)

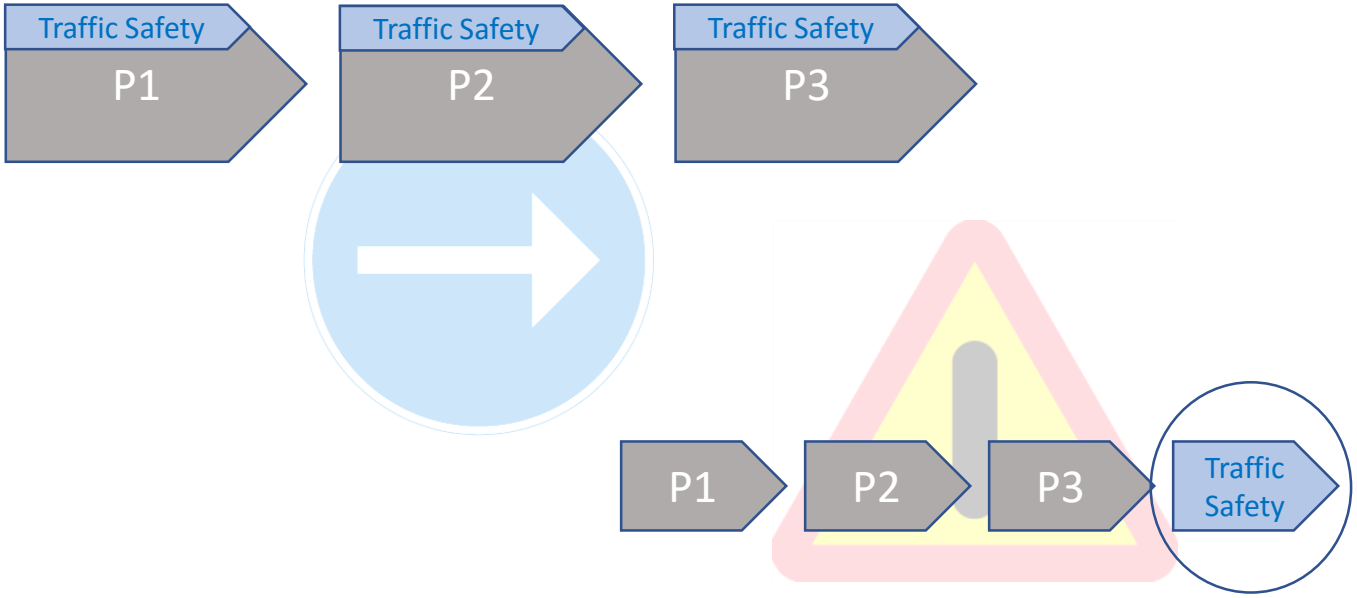
UN Global Goals / Shared responsibility

Encourage companies, especially large and transnational companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

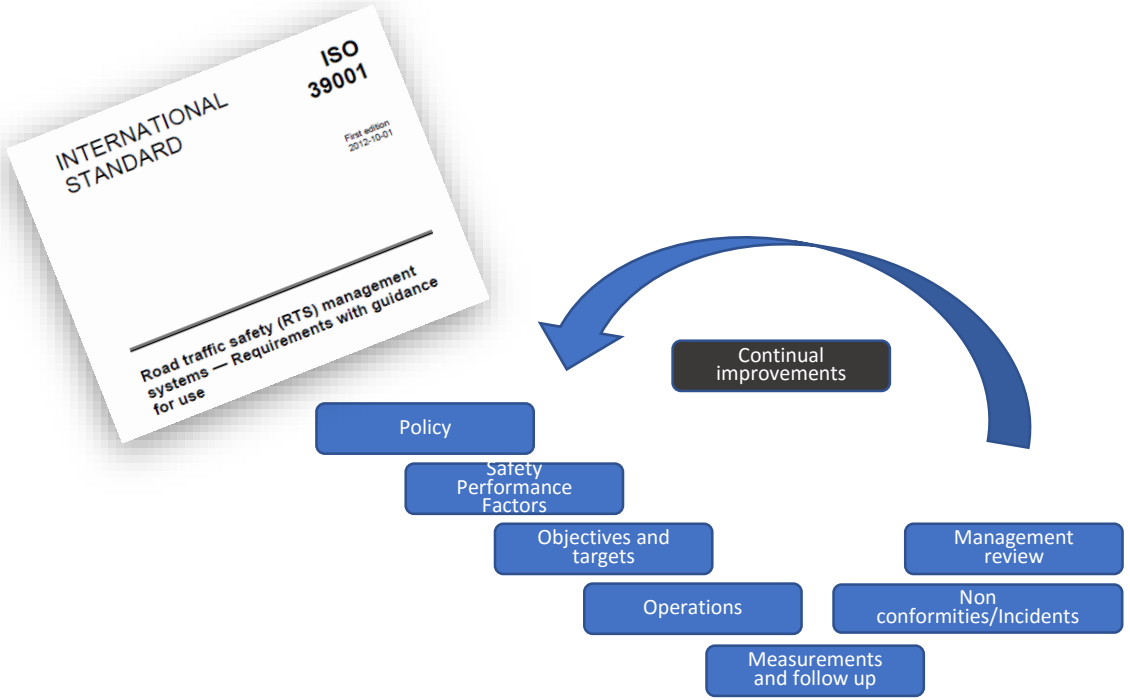
Promote public procurement practices that are sustainable, in accordance with national policies and priorities

Traffic safety → Health → Sustainability

Traffic safety is one dimension in almost all processes, we have to work in an inclusive way



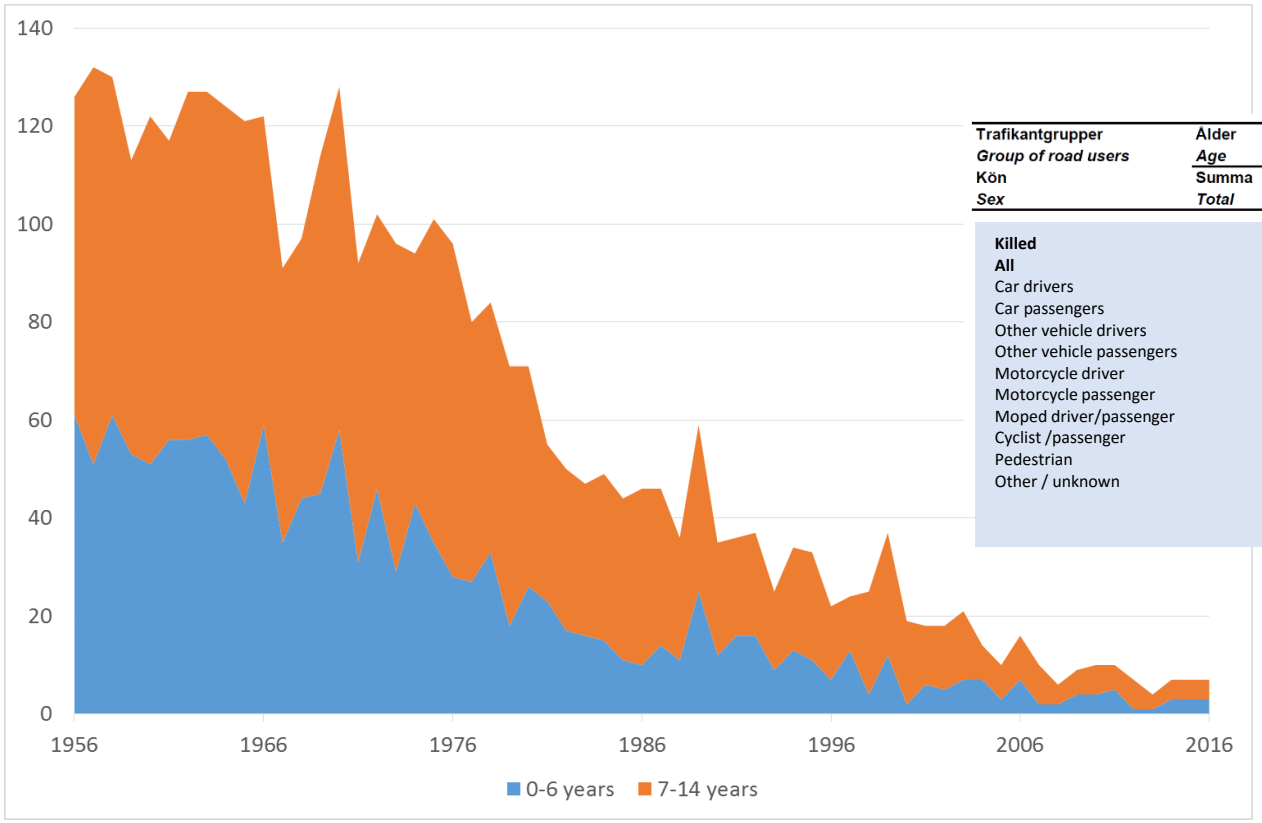
ISO 39001 Process Performance factors



- Intermediate safety factors
  - ✓ Road design
  - ✓ Use of appropriate roads
  - ✓ Personal safety equipment
  - ✓ Safe speed
  - ✓ Fitness of drivers:

    fatigue, alcohol, distraction
  - ✓ Journey planning
  - ✓ Vehicle safety
  - ✓ Appropriate authorisation
  - ✓ Removal of vehicles and drivers
  - ✓ Post crash response

Children killed in traffic 1956-2016 (2013)



Trafikantgrupper *Group of road users*	Ålder *Age*							
Kön *Sex*	Summa *Total*	0	1–3	4–6	7–9	10–12	13–14	15
Killed								
All		**1**	**-**	**-**	**2**	**1**	**-**	**-**
Car drivers		-	-	-	-	-	-	-
Car passengers		-	-	-	2	-	-	-
Other vehicle drivers		-	-	-	-	-	-	-
Other vehicle passengers		-	-	-	-	-	-	-
Motorcycle driver		-	-	-	-	-	-	-
Motorcycle passenger		-	-	-	-	-	-	-
Moped driver/passenger		-	-	-	-	-	-	-
Cyclist /passenger		-	-	-	-	-	-	-
Pedestrian		1	-	-	-	-	-	-
Other / unknown		-	-	-	-	1	-	-

TRAFIKVERKET

Thank you!

Gordon Moore in 1965 said; "Change will never be this slow again"

Anders Lie
Swedish Transport Administration
anders.lie@trafikverket.se

TRAFIKVERKET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Technology: The Future of Safer Fleets

11.14.17

Ashlyn Kress – AT&T Director of Business Development

Internet of Things - Fleet Solutions

AT&T Business

AT&T Fleet Vehicles

AT&T Fleet Profile

81,300 assets (includes Direct TV fleet)

- Light Duty 71,000
- Medium Duty 8,200
- Heavy Duty 2,100

AT&T Business

AT&T Fleet Management Solutions

Track, monitor and improve utilization of fleets to improve safety, savings & productivity.

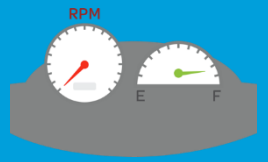
Automate data collection

Reduce infraction risks and save up to 30 minutes of driver time daily

Increase driver productivity

Dynamically guide drivers to the best routes and spot unproductive behavior

Reduce fuel costs



Save up to 11% in fuel costs through route optimization and minimizing idling

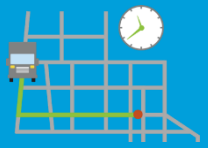
Make better business decisions

Know exactly where your drivers are to revise schedules more efficiently

Increase driver safety & compliance

Improve your monitoring of driver behavior and vehicle conditions

Improve customer service

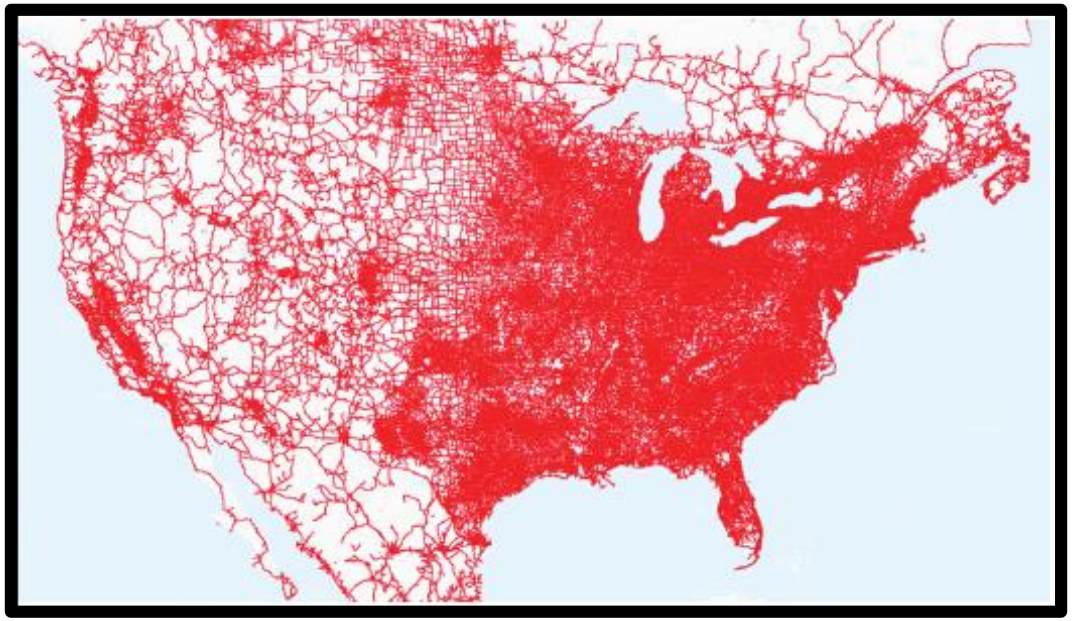


Keep customers informed with real-time access to vehicle locations

AT&T Business

Geotab Sensor Network Coverage in 24 hour period

2.5 billion data points are collected **daily** across the US and Canada



1.1 billion miles of driving data **monthly**
&
Third party peripherals and sensor data

+

Artificial Intelligence
&
Machine Learning Techniques

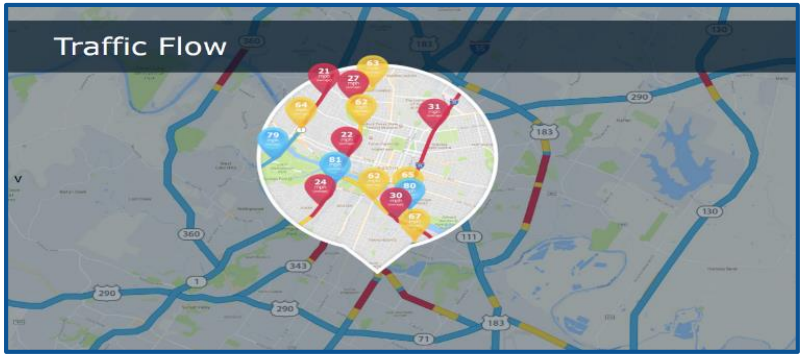
=

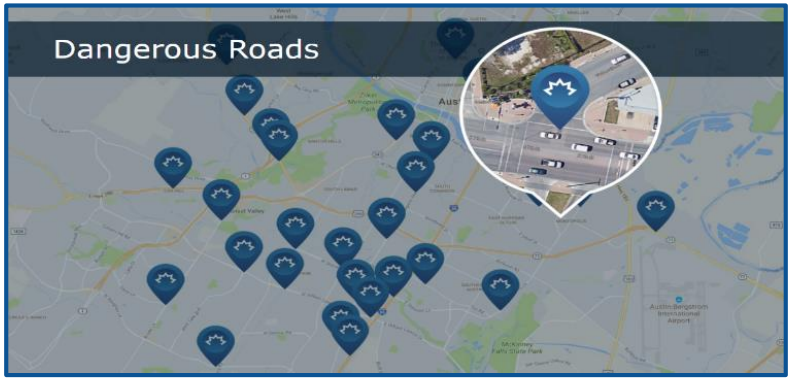
Actionable Insights
to support
Safety Initiatives

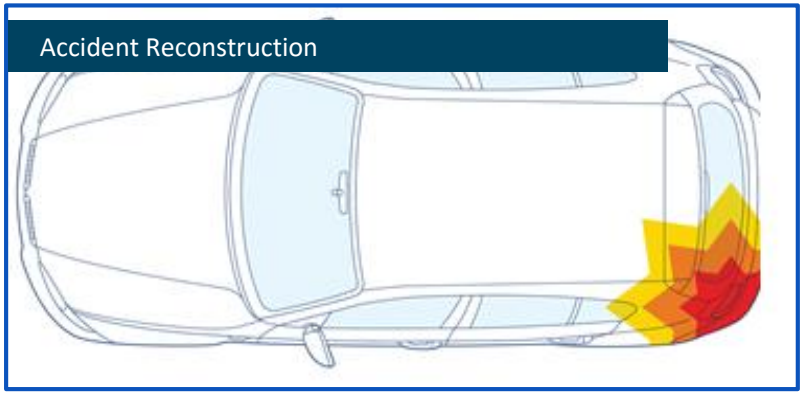
GEOTAB
management by measurement

AT&T Business

How Geotab Fleet Data Enables Safety Insights







AT&T Business

AT&T Business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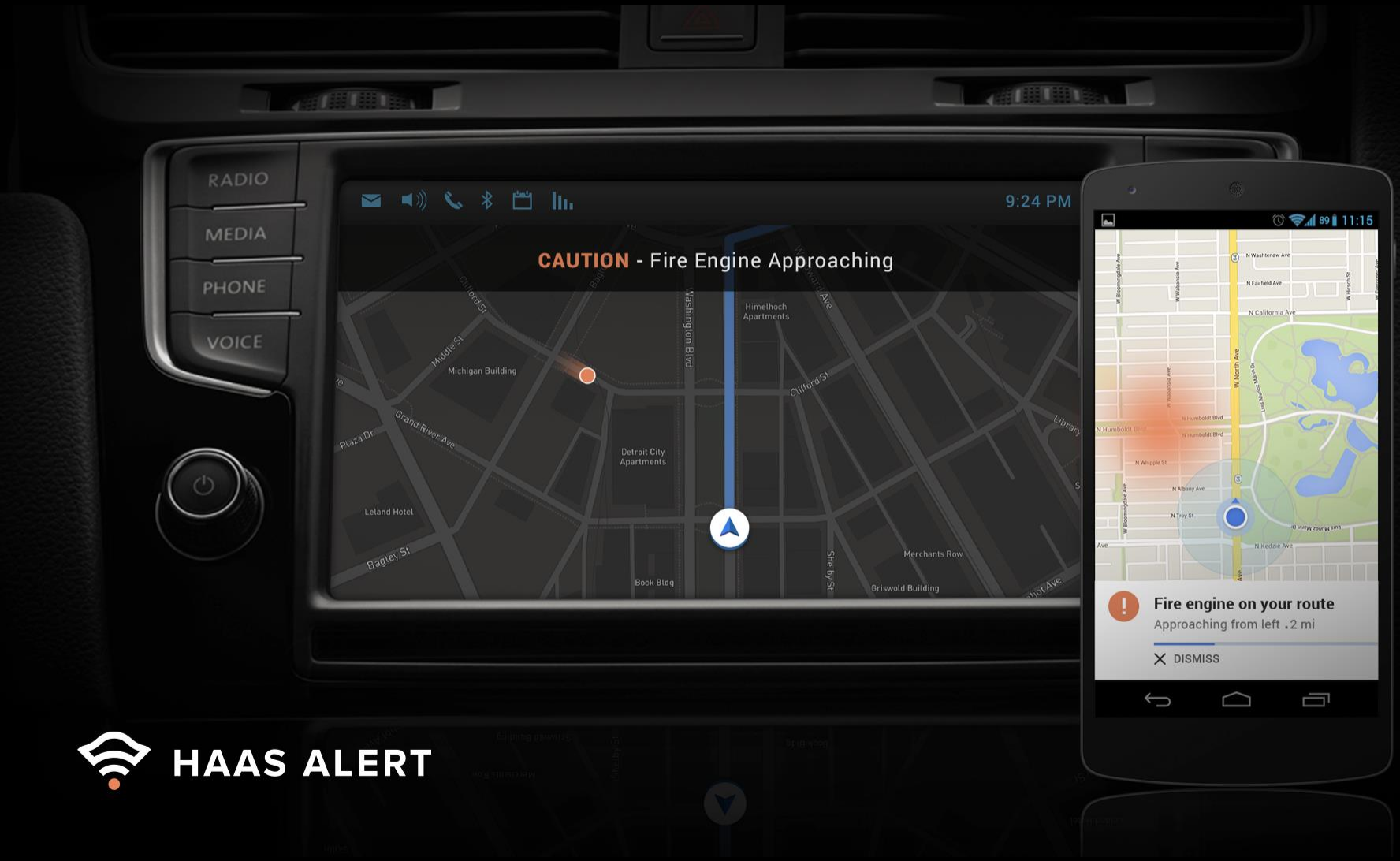
HAAS ALERT

SMART COMMUNITIES = SAFE COMMUNITIES

Cellular Vehicle-to-Vehicle Technology
is improving the way emergency responders and fleets alert drivers to avoid collisions


INCIDENT
© HAAS, INC. 2017


RADIO
MEDIA
PHONE
VOICE
9:24 PM
CAUTION - Fire Engine Approaching
Himelhoch Apartments
Michigan Building
Detroit City Apartments
Leland Hotel
Book Bldg
Griswold Building
Merchants Row
Washington Blvd
Clifford St
Grand River Ave
Bagley St
Shelby St
Plaza Dr
11:15
N Washtenaw Ave
N California Ave
W North Ave
N Humboldt Blvd
N Albany Ave
N Troy St
N Kedzie Ave
Fire engine on your route
Approaching from left .2 mi
DISMISS

HAAS ALERT


6:08 PM
Search
Road Hazard
Emergency vehicle on-scene
Reported by HAAS Alert
W Lake St
N Lower Wacker Dr
START
ENGINE
STOP
MODE


Haas_Alert
Emergency vehicle approaching to the North
NW 15TH AVE
Emergency vehicle approaching to the North
VIEW RECENT ALERTS
VIEW DATA
START
AUTO
A/C
MAX
AUTO

WHO WE WORK WITH

PARTNER ORGANIZATIONS

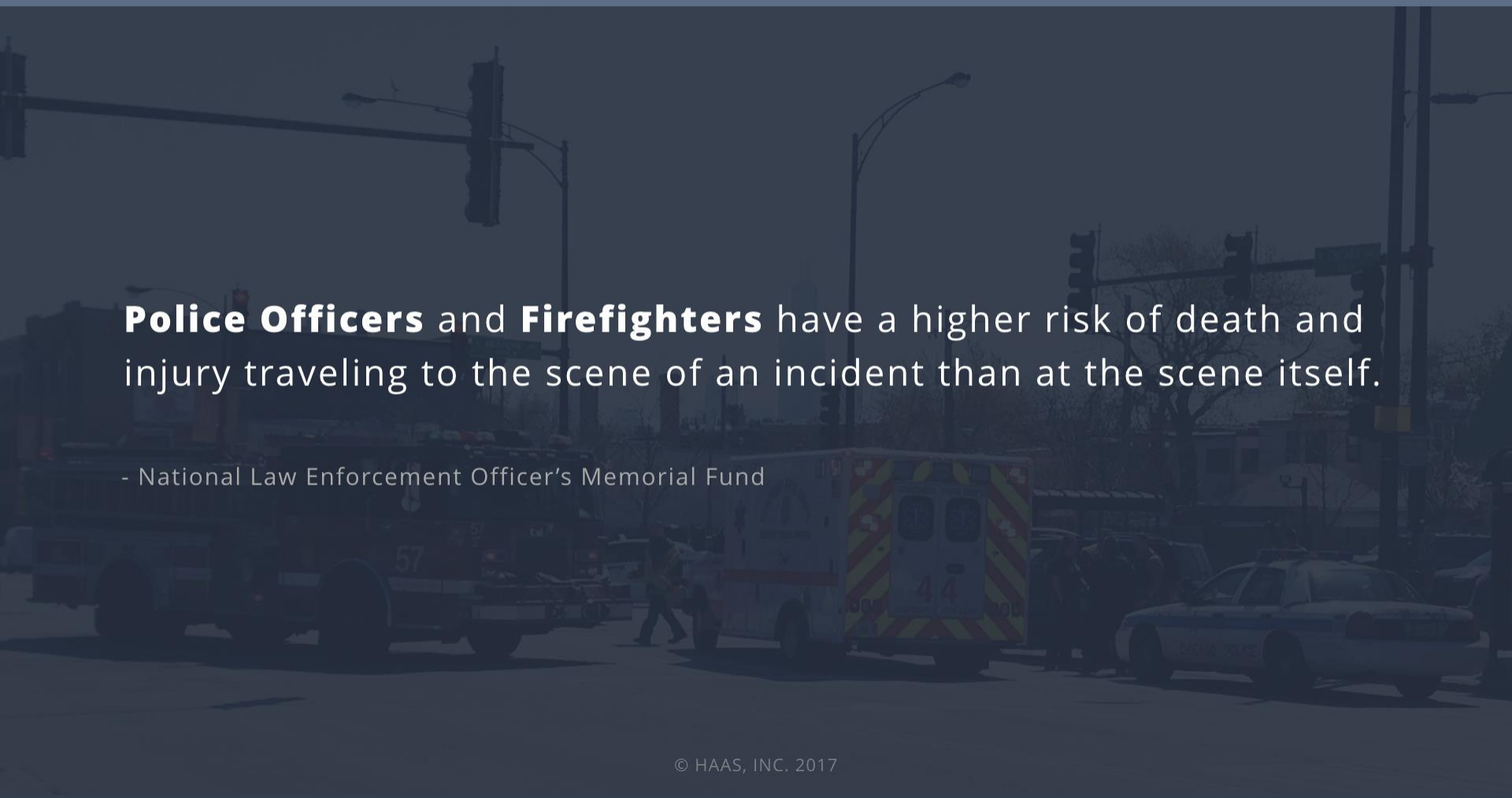
- U.S. Department of Homeland Security (*recent V2V for first responder communication contract*)
- National Safety Council
- Road to Zero Coalition
- Multiple State DOT TIMs Groups
- Illinois Fire Chiefs Association
- NY State Association of Fire Chiefs
- Autonomous Vehicle Symposium
- CREST Center
- CTIA
- NIST Public Safety Super Cluster
- NFPA (National Fire Protection Association)
- FAMA (Fire Apparatus Manufacturers Association)
- FEMSA (Fire and Emergency Manufacturers and Services Association)
- U.K. Dept of International Trade

Responders and city agencies **broadcast** to motorists in real-time.

Responders and city agencies **broadcast** to motorists in real-time.

For autonomous, more important for the ***vehicle*** to receive real-time data sets.

PROBLEM



Police Officers and **Firefighters** have a higher risk of death and injury traveling to the scene of an incident than at the scene itself.

- National Law Enforcement Officer's Memorial Fund

V2X - IT IS A DATA PROBLEM

Cities have a **DATA PROBLEM**, not a tech problem.

$35B

TODAY

- 60,000/year First Responder accidents in U.S.
- $1M every time an injury is incurred
- Chicago paid $8M*, LA over $20M*

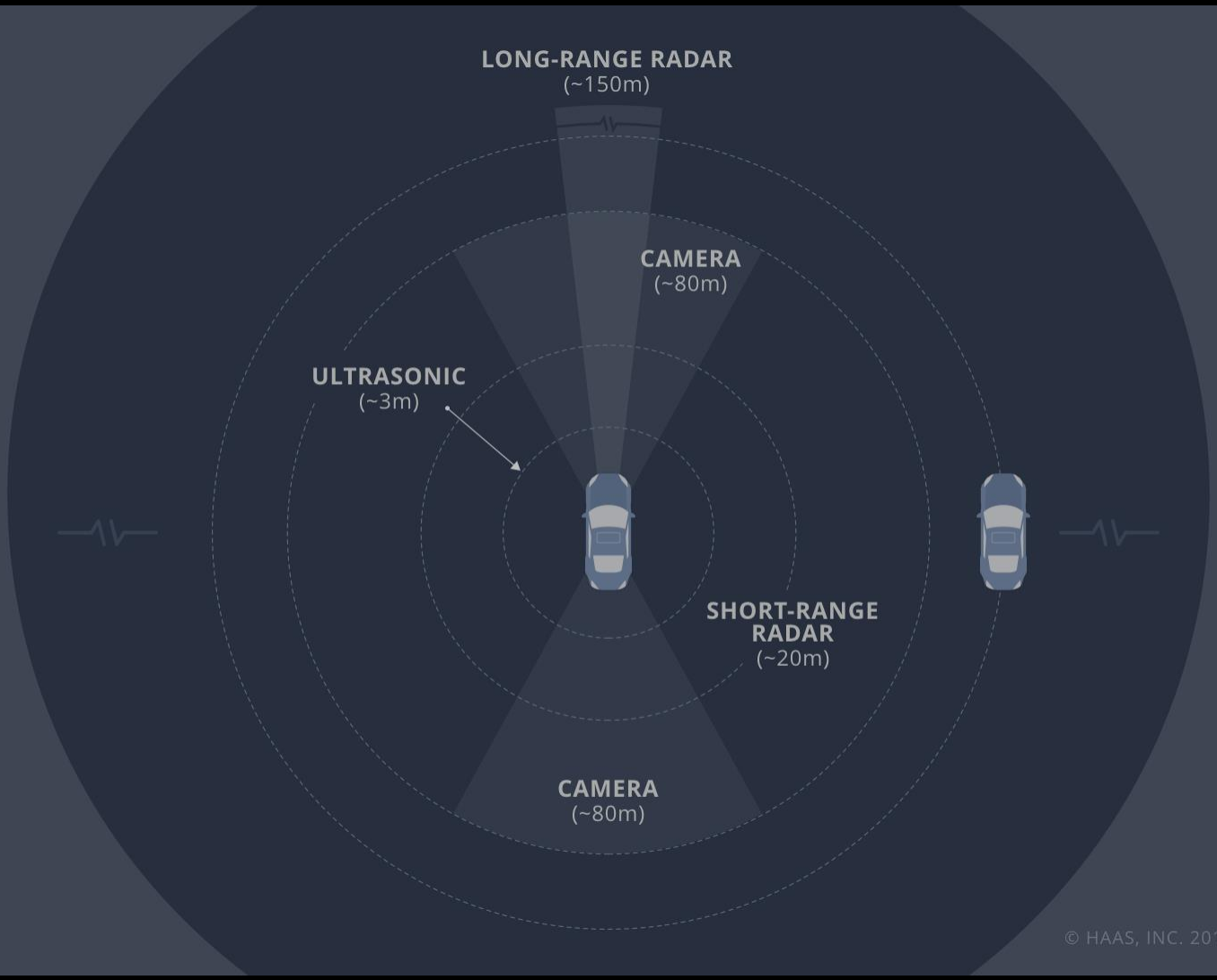
- *Chicago Tribune & LA Times

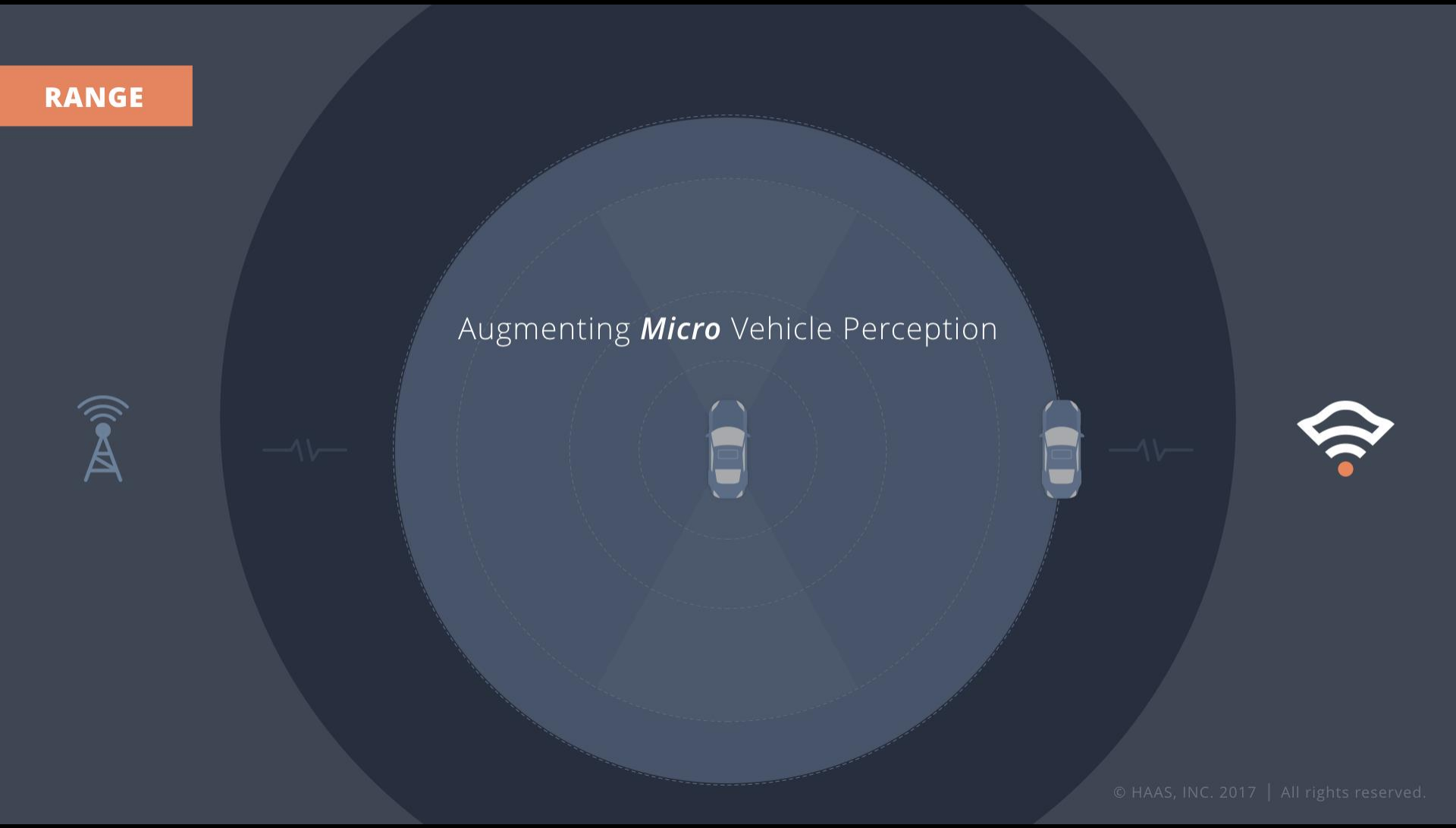
~10x

TOMORROW

- 75% vehicles connected by 2020
- Advanced Infotainment
- Driver Distraction
- Sound insulated cabins
- Autonomous Vehicles
- Congestion & Urbanization

RANGE





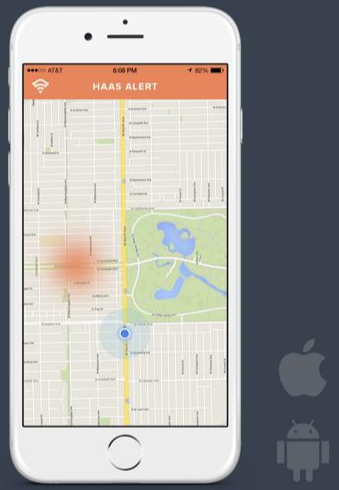
RANGE

Augmenting *Macro* Vehicle Perception

SEAMLESS INTEGRATION

DATA CREATION

Multiple Solutions Connect Cities & Fleets



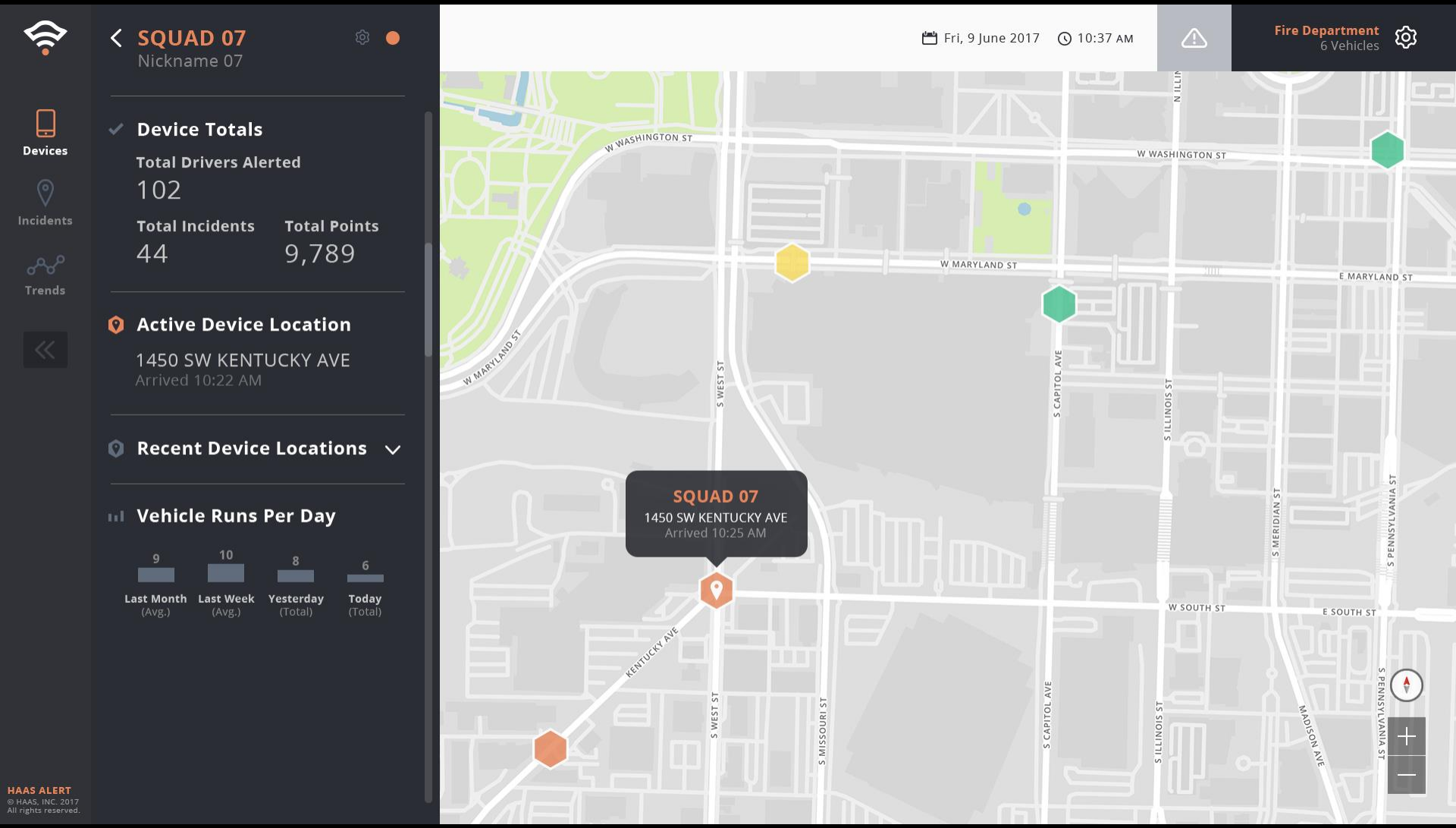
DIRECT DATA

MOBILE

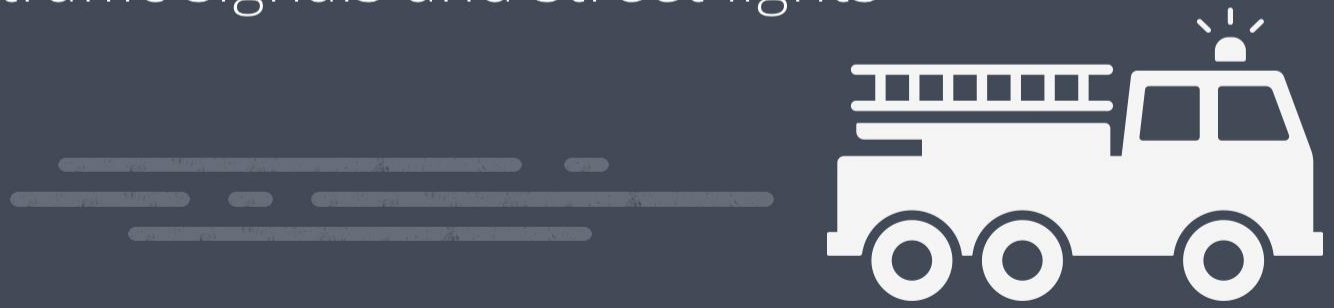
DATA CREATION

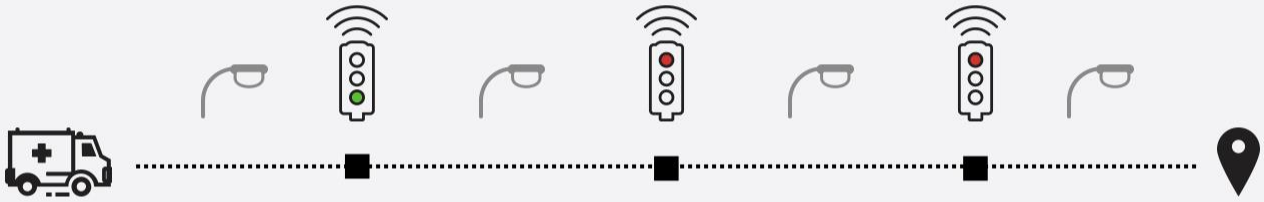
Multiple Solutions Connect Cities & Fleets

SMART CITY IoT Device
CELLULAR / BLE


Devices
Incidents
Trends
SQUAD 07
Nickname 07
Device Totals
Total Drivers Alerted
102
Total Incidents
44
Total Points
9,789
Active Device Location
1450 SW KENTUCKY AVE
Arrived 10:22 AM
Recent Device Locations
Vehicle Runs Per Day
9
10
8
6
Last Month (Avg.)
Last Week (Avg.)
Yesterday (Total)
Today (Total)
HAAS ALERT
© HAAS, INC. 2017
All rights reserved.
Fri, 9 June 2017
10:37 AM
Fire Department
6 Vehicles
W WASHINGTON ST
W MARYLAND ST
E MARYLAND ST
S WEST ST
S CAPITOL AVE
S ILLINOIS ST
S MERIDIAN ST
S PENNSYLVANIA ST
SQUAD 07
1450 SW KENTUCKY AVE
Arrived 10:25 AM
W SOUTH ST
E SOUTH ST
KENTUCKY AVE
S MISSOURI ST
MADISON AVE

HAAS ALERT data sets can go to work today with intelligent systems & connected infrastructure for traffic signals and street lights

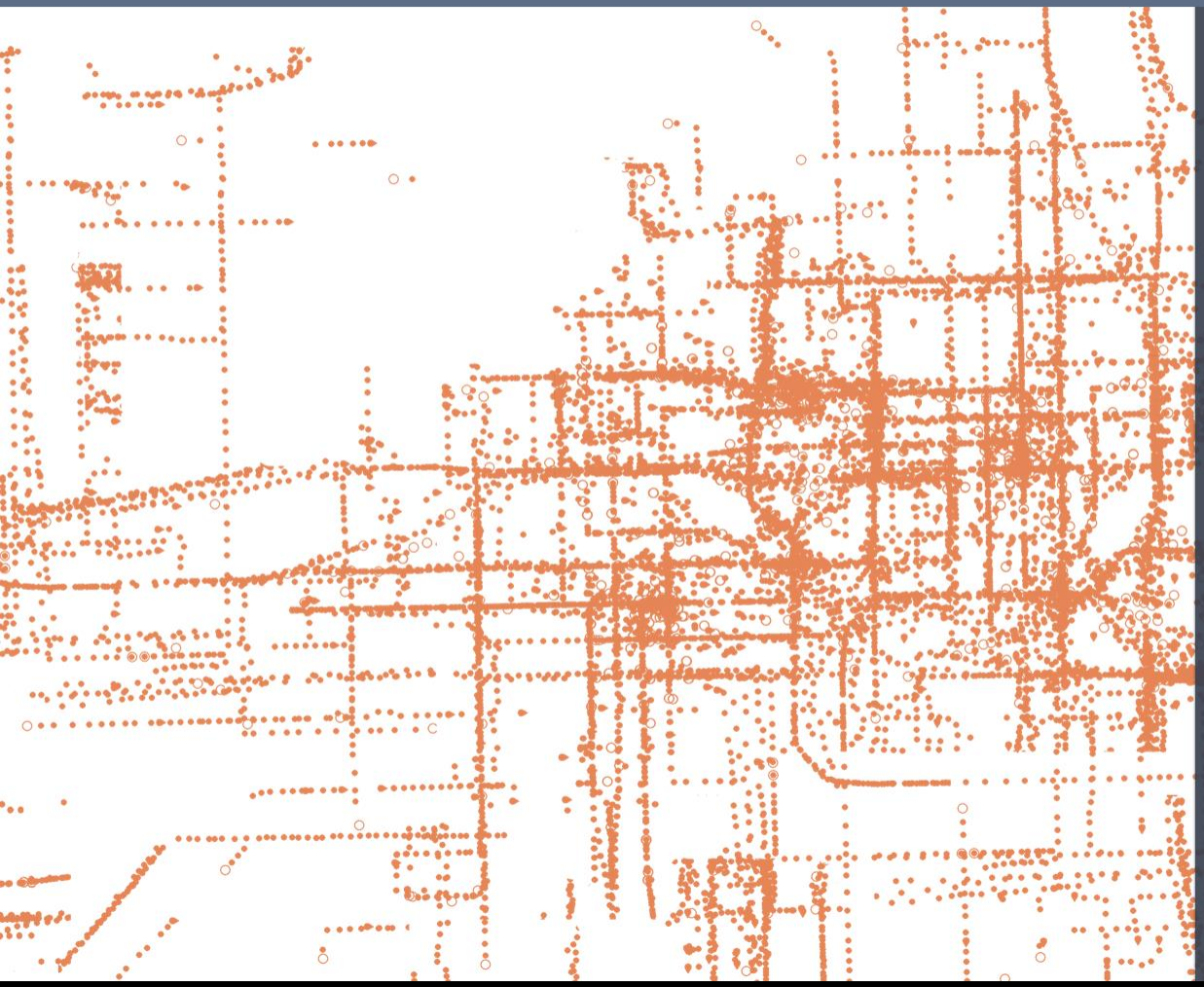




Current short-range sensors inform SPaT over short distances

HAAS ALERT real-time data sets can inform SPaT and other infrastructure (i.e. street lights) over any distance

TODAY - PROVEN TECHNOLOGY



14+ CITY SETUPS INCLUDING

- Palo Alto CA
- Chicago IL
- Belmont CA
- Grand Rapids MI
- Detroit MI
- Austin TX
- Portland OR...

TO DATE

- Over 10,000+ Drivers Alerted

CORY HOHS
cory@haasalert.com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nyc.gov/visionzero

FLEETGUIDE

Advanced Safety For Legacy Vehicles

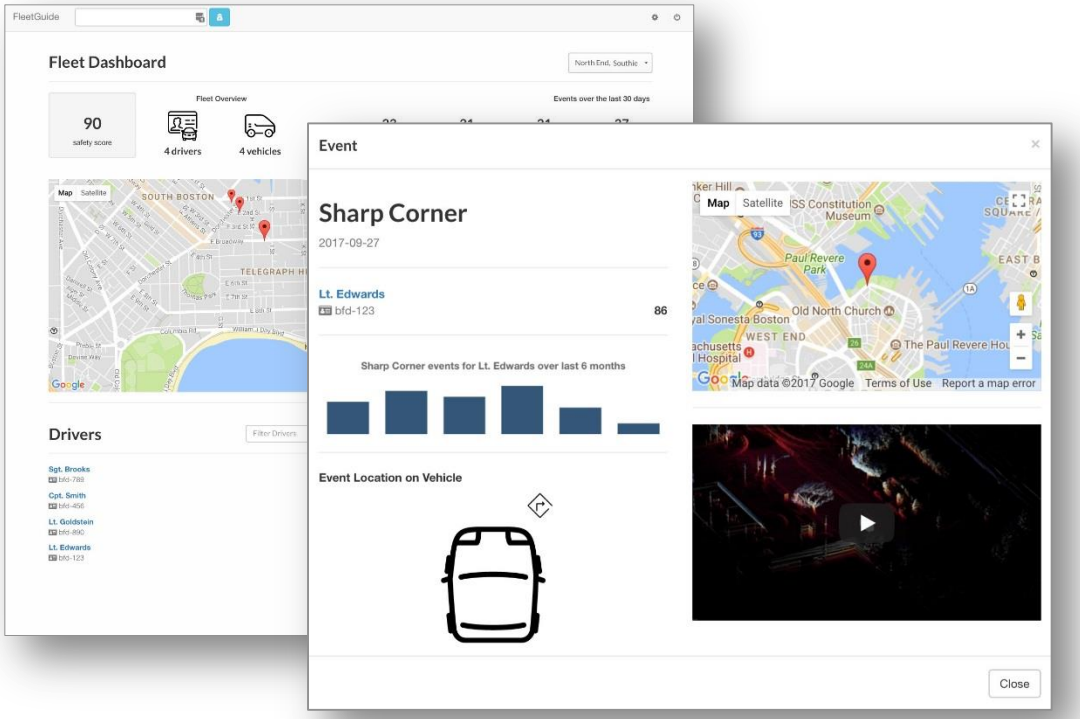
Angus Pacala, Co-Founder & CEO

TOGETHER FOR SAFER ROADS
COMPANIES DRIVEN TO SAVE LIVES™

OUSTER

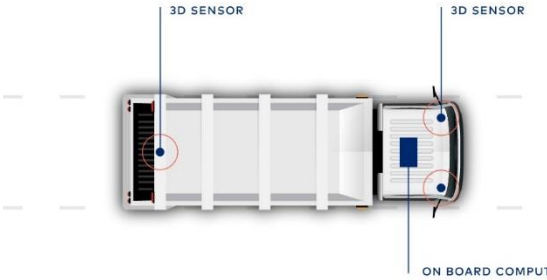
Safety System Overview

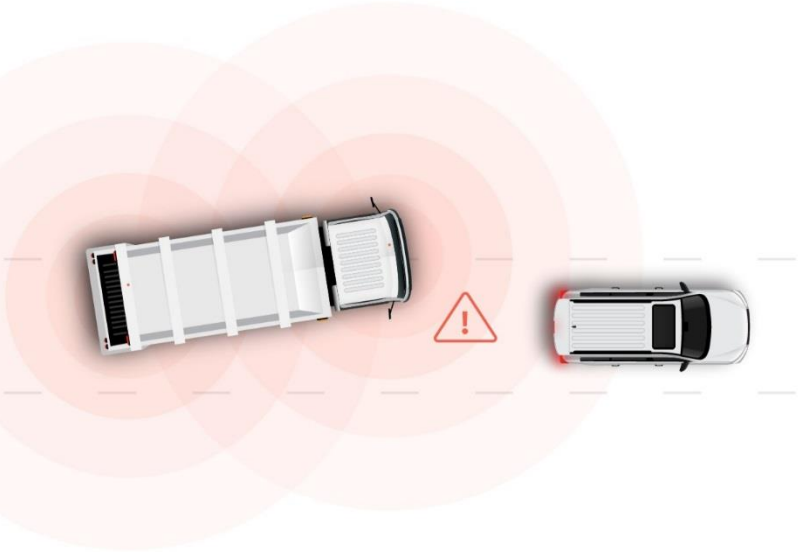
- Aftermarket hardware installation



- Cloud telematics interface
  - Real time driver monitoring
  - Driver safety metric dashboarding for performance improvement
  - 3D accident reconstruction and playback

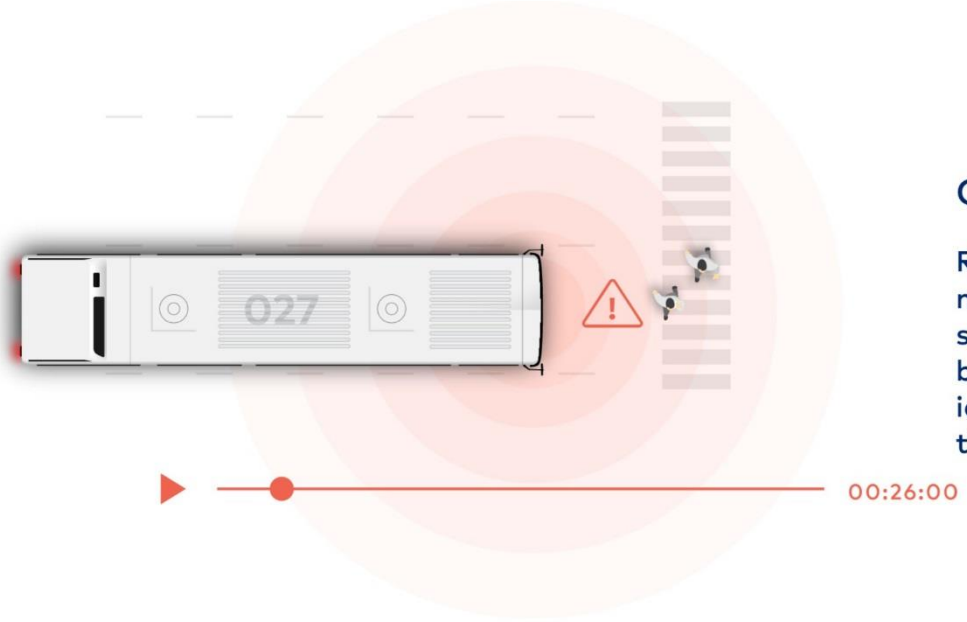
FLEETGUIDE Operation





Collision Avoidance

Active sensor system warns drivers if a collision is imminent, reducing collisions by up to 90%.



Critical Event Capture

Records both collisions and near misses in 3D color—beyond simple harsh acceleration and braking, the system intelligently identifies and records events that matter.

Video

Benefits

Safety

- Committed to saving lives and reducing collisions by up to 90%
- Better protect vehicles, passengers, cargo, and the external environment

Financials

- Focused on generating a positive ROI for customers
  - Lower liability claims, insurance premiums, works comp bills, medical expenses, and repair costs
  - Reduce likelihood of catastrophic incidents
- FleetGuide is an investment opportunity for fleets

FLEETGUIDE

fleetguide.io

---

transdev
MOBILITY INSPIRED BY YOU

COX ENTERPRISES

Exelon.

Recology
WASTE ZERO

casella

TOGETHER FOR SAFER ROADS
COMPANIES DRIVEN TO SAVE LIVES

WASTE CONNECTIONS INC.
Connect with the Future

AIG

Munich RE

Sprint


VISION
ZERO
nyc.gov/visionzero

TOGETHER FOR SAFER ROADS

Technology: The Future of Safer Fleets

Kary Schaefer
General Manager, Product Marketing and Strategy

Daimler Trucks

FREIGHTLINER FUSO WESTERN STAR Thomas BUILT BUSES BHARATBENZ

Safety System Development

Cab Structure

Visibility

Ingress / Egress

Interior Noise

Seat Belts

Airbags

Dash layout

Driver Distraction

Anti-lock Brake Systems (ABS)

Electronic Stability Control (ESC)

Collision Warning

Collision Mitigation Systems (CMS)

Active Brake Assist (ABA)

Advanced Driver Assistance Systems (ADAS)

Detroit Assurance 2019

Features

Active Brake Assist (ABA) 5.0

- Enhancements : Full Emergency Braking on stationary objects including pedestrians.
- Camera and Radar signals are fused, offering improved object recognition.

Performance on Pedestrians

Adaptive Cruise Control to 0mph

- ABS+ enables ACC down to 0mph (for stop and go traffic).
- Radar/Camera fusion enables ACC braking on stationary objects.


ACC to 0mph (A.K.A – Distronic+)

Active Lane Assistant (ALA)

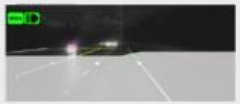
- Lane Keeping Assist sub-function requests APS to actuate desired steering angle to stay centered in a lane (while using ACC)
- Lane Departure Protection sub-function requests APS to steer back into the lane during inadvertent lane drift (even when not in ACC)


Lane Keep Assist (when ACC is on)


Lane Departure Protection

Camera Functions

- Traffic Sign Recognition, displays speed signs and some truck specific signs on ICUC.
- Intelligent High-beam Control automates use of high-beams.
- Vid Capture of critical events.



Side Guard Assist

- Detects objects in blind spot and warns the driver in case of a highway lane change, urban turn maneuver.


Lane Change Assist

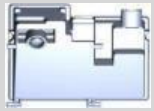

Turn Assist


Trailer Sweep Assist

Components

Sensors


ARS400 Series Radar - Continental


Multi Purpose Camera2 - Bosch


2x Short Range Radar - Mitsubishi

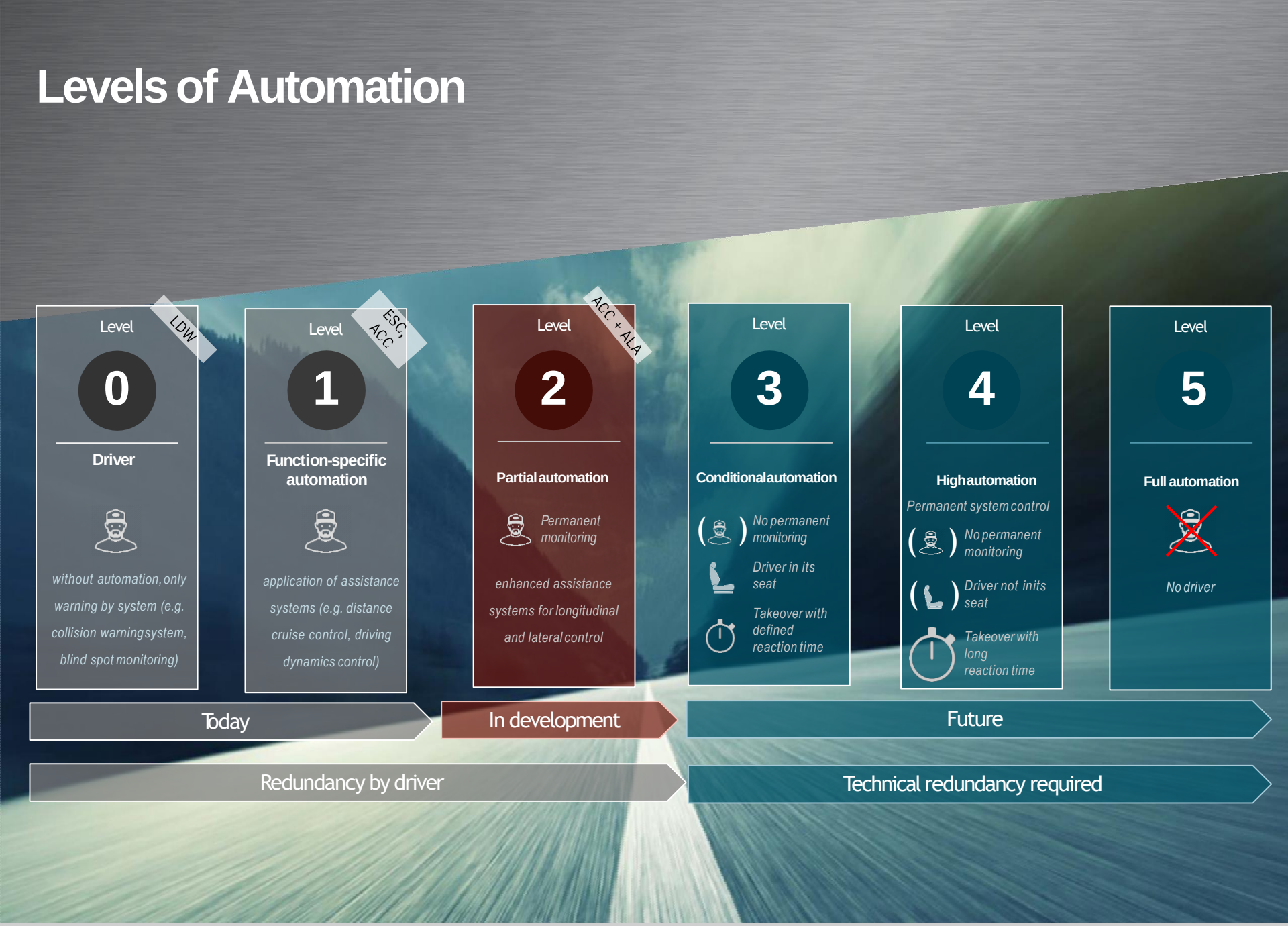
Decision Unit


Video Radar Decision Unit (VRDU) -2

Actuators / Controllers

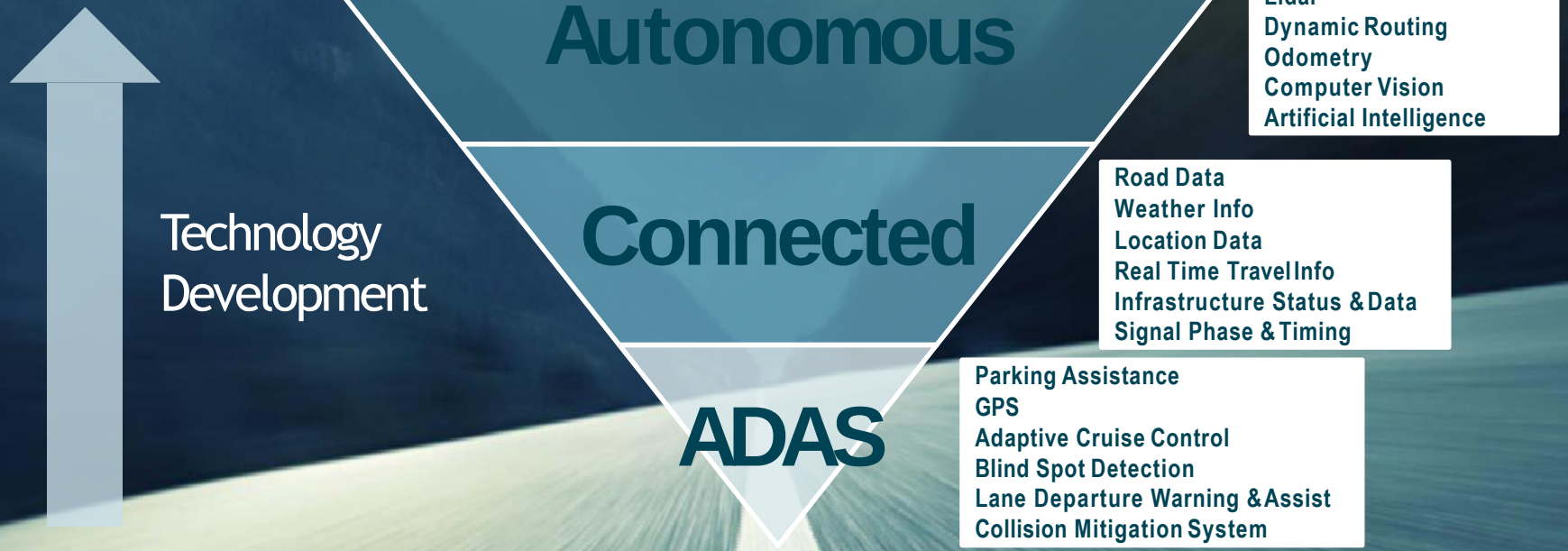
- CPC – Common Powertrain Controller, allows acceleration and deceleration (ACC).
- ABS+ – Antilock Braking System, allows brake request from VRDU.
- APS – Adaptive Power Steering

Levels of Automation



Automated vehicles will develop **incrementally**

Active Safety Systems are part of Advanced Driver Assistance Systems (ADAS)



Thank you!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Managing Risk:
Fleet Safety for the Long Haul

NYC's 4th Annual Vision Zero Fleets Safety Forum
November 14, 2017

Gregg Piltch
President, West Zone

Introduction

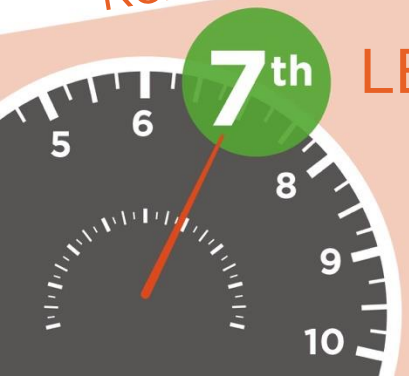
Roads are dangerous, and they are getting worse.

Both around the world and at home in the United States.

On the world's roads every year, approximately **1.25 million** people die and **50 million** people are injured.

And in the U.S. the challenge is growing.

ROAD CRASHES ARE EXPECTED TO RISE TO THE



LEADING CAUSE OF DEATH BY THE YEAR 2030.

AIG

AIG is committed to fleet safety and management.

Our responsibility to help our clients better understand their fleet risks and make roads safer for everyone.

It takes **collaboration** to make progress.

Accelerating **safer cities** through Together for Safer Roads

Advancing **safer policies** with the Brookings Institution

Understanding **safer vehicles** with UC Santa Clara Law

AIG

Emerging Technologies and Solutions with Data-driven Insights to Help Reduce Risks

AIG

Risk on the road is not new.

So what's changing?

Unprecedented adoption of new technology in vehicles for safety and comfort:

- Voice commands
- Automatic parking features
- Automatic emergency brakes
- Lane departure alerts
- Platooning
- Front-end sensors
- Telematics
- Vehicle Cameras
- And more!

AIG

Platooning

2015 Hyundai Genesis

Risk shifting is happening FAST.

Airbags

Airbags were first made available to the public in 1971.

Airbags were mandated to be on all new vehicles in the US in 1998.

1971 — 1998

27 YEARS

Automatic Brakes

Automatic Emergency brakes were first tested by the National Highway Transportation Board in 2015 will be standard on 99% of all new consumer automobiles in the U.S. by 2022

2015 — 2022

7 YEARS

AIG

Real world examples of technology improving safety.

Europcar

Telematics devices captured driving behavior and calculated a “smooth driver score” based on cornering, speeding, accelerating, and hard breaking

119K Contestants
2.7M Trips
60M Miles driven

+

Simple driving safety score feedback

=

23% Reduction

LONDON SOVEREIGN
RATP GROUP

43% ↓

MedStar Health

73% ↓

AIG

Risk Shifting

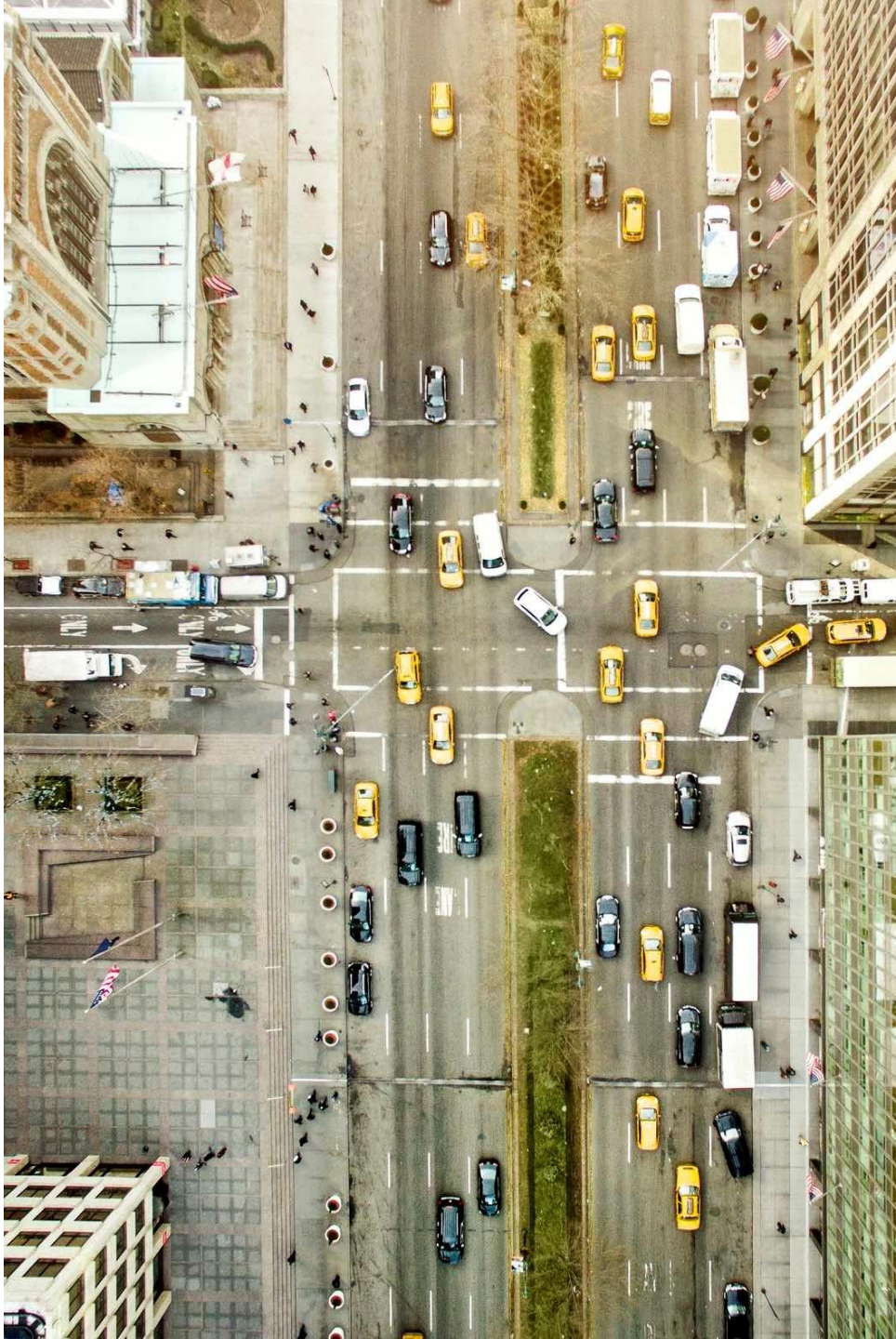
Today, consensus is split

42% Comfortable sharing the road with a driverless vehicle

41% Not Comfortable

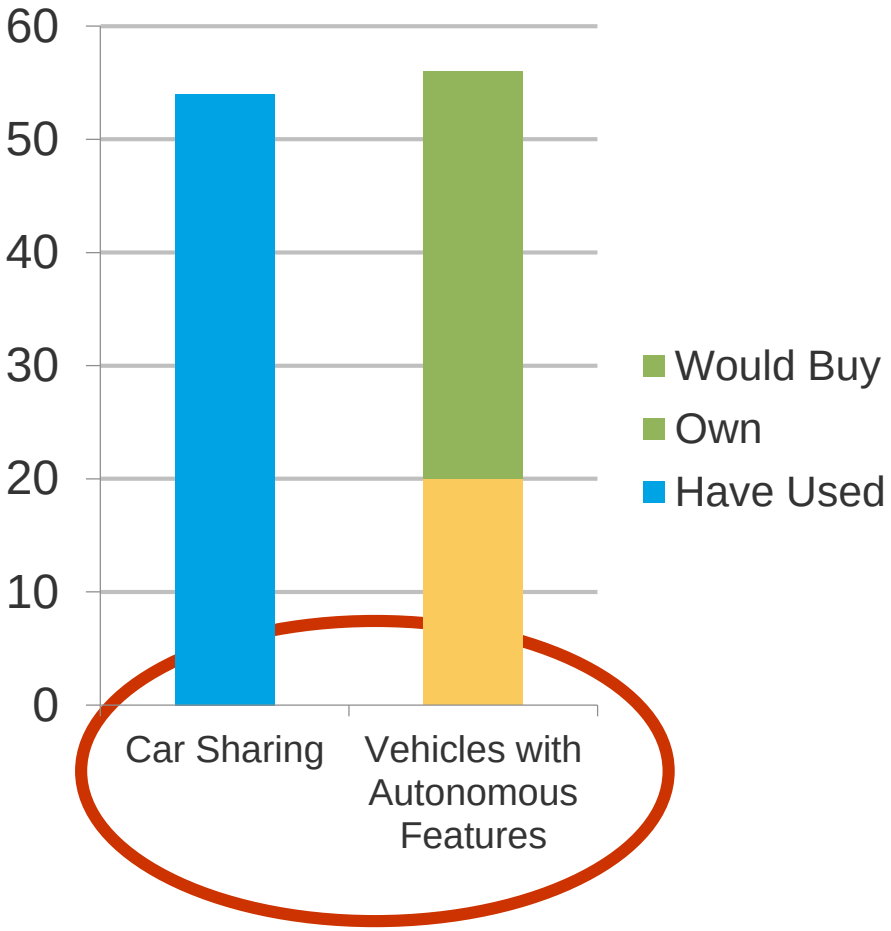
?
17% Undecided

AIG

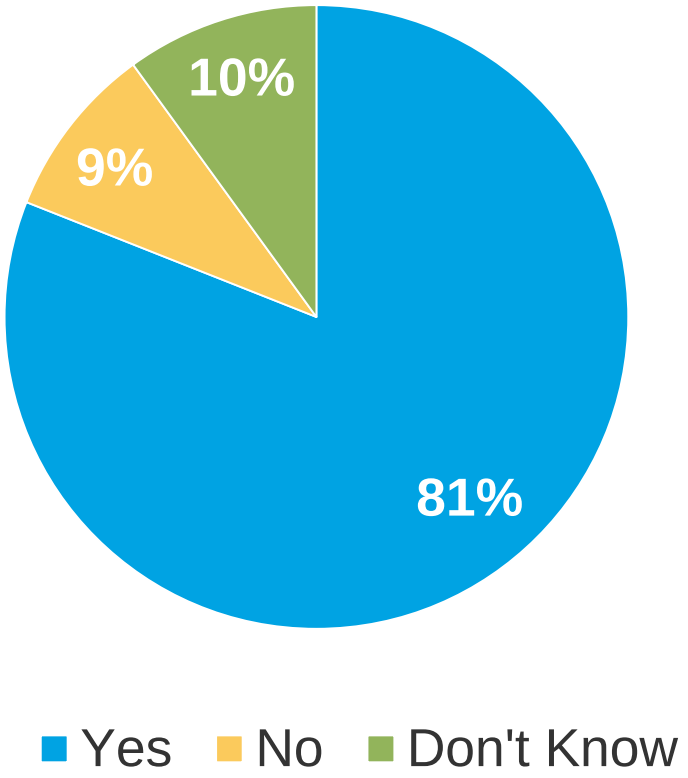


Risk shifting is happening today!

Over 50% of people in the US use car sharing and own/would buy a vehicle with autonomous features.

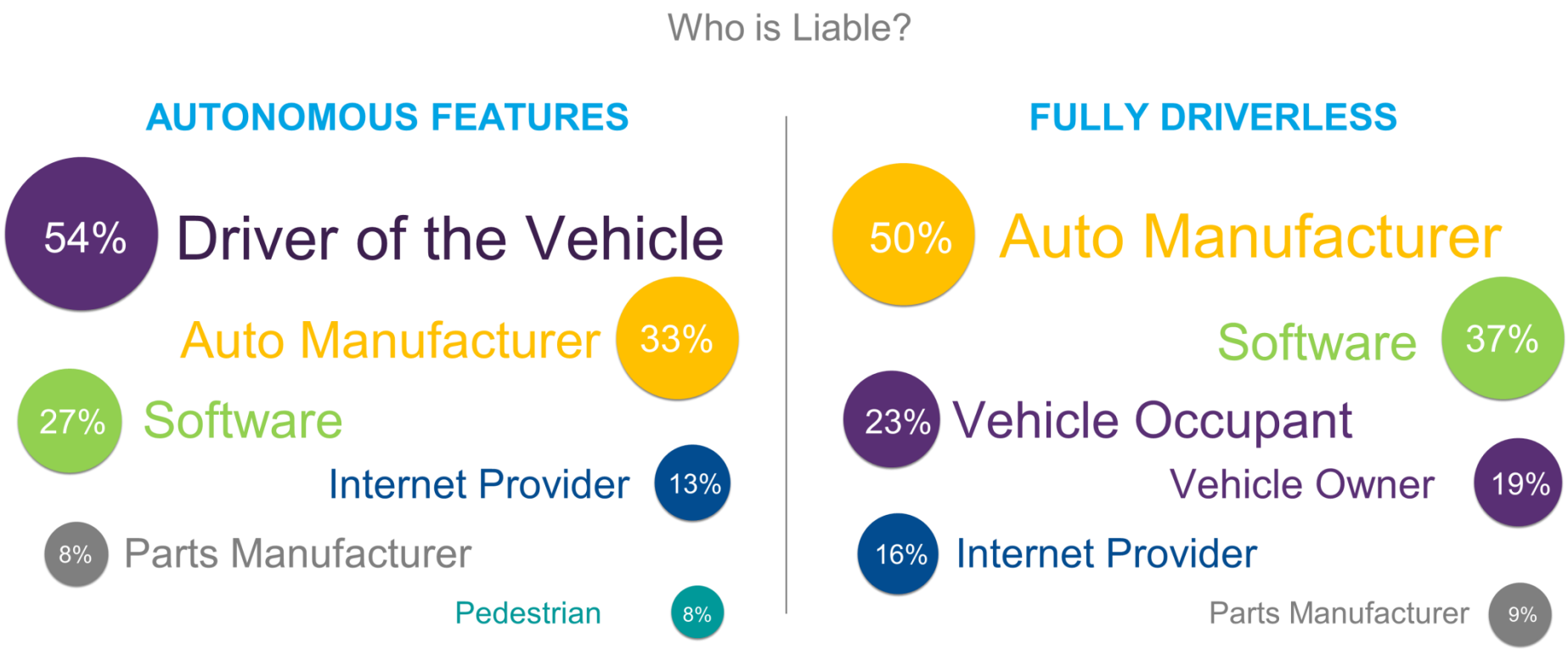


Should owners or riders of autonomous vehicles have car insurance?



AIG

Risks shift with autonomous features and fully driverless.



Questions?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Health and Vision Zero: Applying public health tools to measure driver behavior

Anna Caffarelli, MHS
Special Initiatives Director, Injury and Violence Prevention Program
New York City Department of Health and Mental Hygiene
November 14, 2017

VISION ZERO

NYC Health

NYC Department of Health and Mental Hygiene:

- ✓ **Broad-ranging work: the inspection grades of dining establishments; low- to no-cost health clinics; birth certificates for newborns;**
- ✓ **Disease detectives: investigating clusters of illnesses; study patterns, causes, and effects of health and disease conditions;**
- ✓ **Health challenges: range from obesity, diabetes, injury and heart disease to HIV/AIDS, influenza, tobacco addiction, substance abuse, and the threat of bioterrorism;**
- ✓ **Health inequality is a priority: we strive to close the gap.**

VISION ZERO

NYC Health

DOHMH's role in New York City's Vision Zero initiative

Engage Public Health Partners in Outreach and Education

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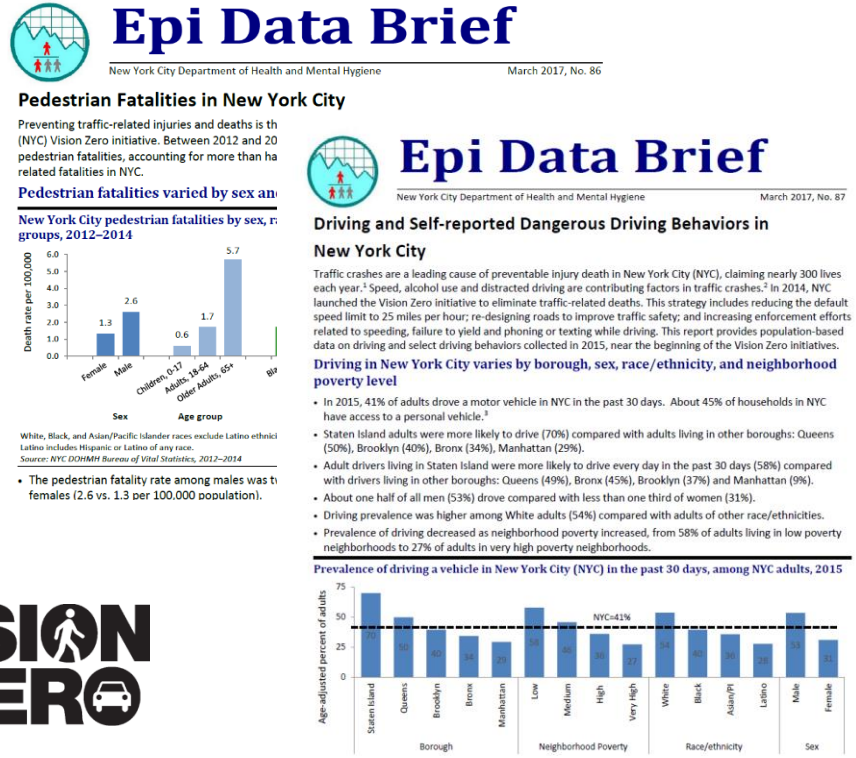
NYC Health

Enhance Surveillance and Publish Findings



Epi Data Brief

New York City Department of Health and Mental Hygiene — March 2017, No. 86

Pedestrian Fatalities in New York City

Preventing traffic-related injuries and deaths is th
(NYC) Vision Zero initiative. Between 2012 and 20
pedestrian fatalities, accounting for more than ha
related fatalities in NYC.

Pedestrian fatalities varied by sex an

New York City pedestrian fatalities by sex, r groups, 2012–2014

White, Black, and Asian/Pacific Islander races exclude Latino ethnici
Latino includes Hispanic or Latino of any race.
Source: NYC DOHMH Bureau of Vital Statistics, 2012–2014

- The pedestrian fatality rate among males was t
  females (2.6 vs. 1.3 per 100,000 population).

Epi Data Brief

New York City Department of Health and Mental Hygiene — March 2017, No. 87

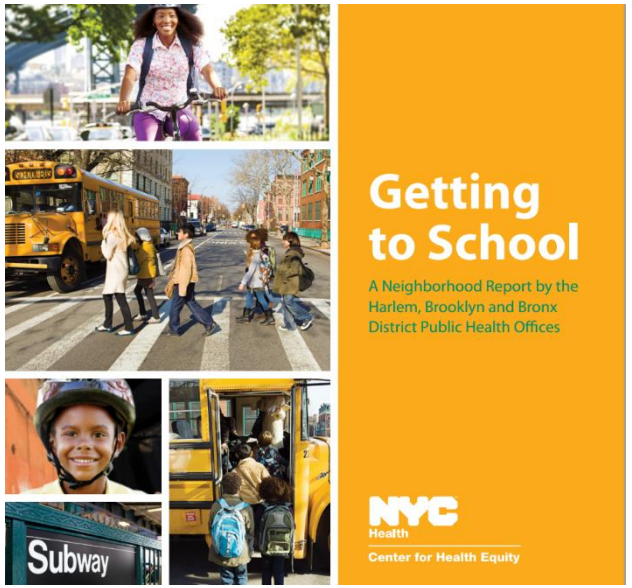
Driving and Self-reported Dangerous Driving Behaviors in New York City

Traffic crashes are a leading cause of preventable injury death in New York City (NYC), claiming nearly 300 lives each year.[1] Speed, alcohol use and distracted driving are contributing factors in traffic crashes.[2] In 2014, NYC launched the Vision Zero initiative to eliminate traffic-related deaths. This strategy includes reducing the default speed limit to 25 miles per hour; re-designing roads to improve traffic safety; and increasing enforcement efforts related to speeding, failure to yield and phoning or texting while driving. This report provides population-based data on driving and select driving behaviors collected in 2015, near the beginning of the Vision Zero initiatives.

Driving in New York City varies by borough, sex, race/ethnicity, and neighborhood poverty level

- In 2015, 41% of adults drove a motor vehicle in NYC in the past 30 days. About 45% of households in NYC have access to a personal vehicle.[3]
- Staten Island adults were more likely to drive (70%) compared with adults living in other boroughs: Queens (50%), Brooklyn (40%), Bronx (34%), Manhattan (29%).
- Adult drivers living in Staten Island were more likely to drive every day in the past 30 days (58%) compared with drivers living in other boroughs: Queens (49%), Bronx (45%), Brooklyn (37%) and Manhattan (9%).
- About one half of all men (53%) drove compared with less than one third of women (31%).
- Driving prevalence was higher among White adults (54%) compared with adults of other race/ethnicities.
- Prevalence of driving decreased as neighborhood poverty increased, from 58% of adults living in low poverty neighborhoods to 27% of adults in very high poverty neighborhoods.

Prevalence of driving a vehicle in New York City (NYC) in the past 30 days, among NYC adults, 2015



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NYC Health

Population-based phone survey

NYC Community Health Survey (CHS), 2015

- In the past 30 days, on how many days did you drive a car or motor vehicle in New York City?

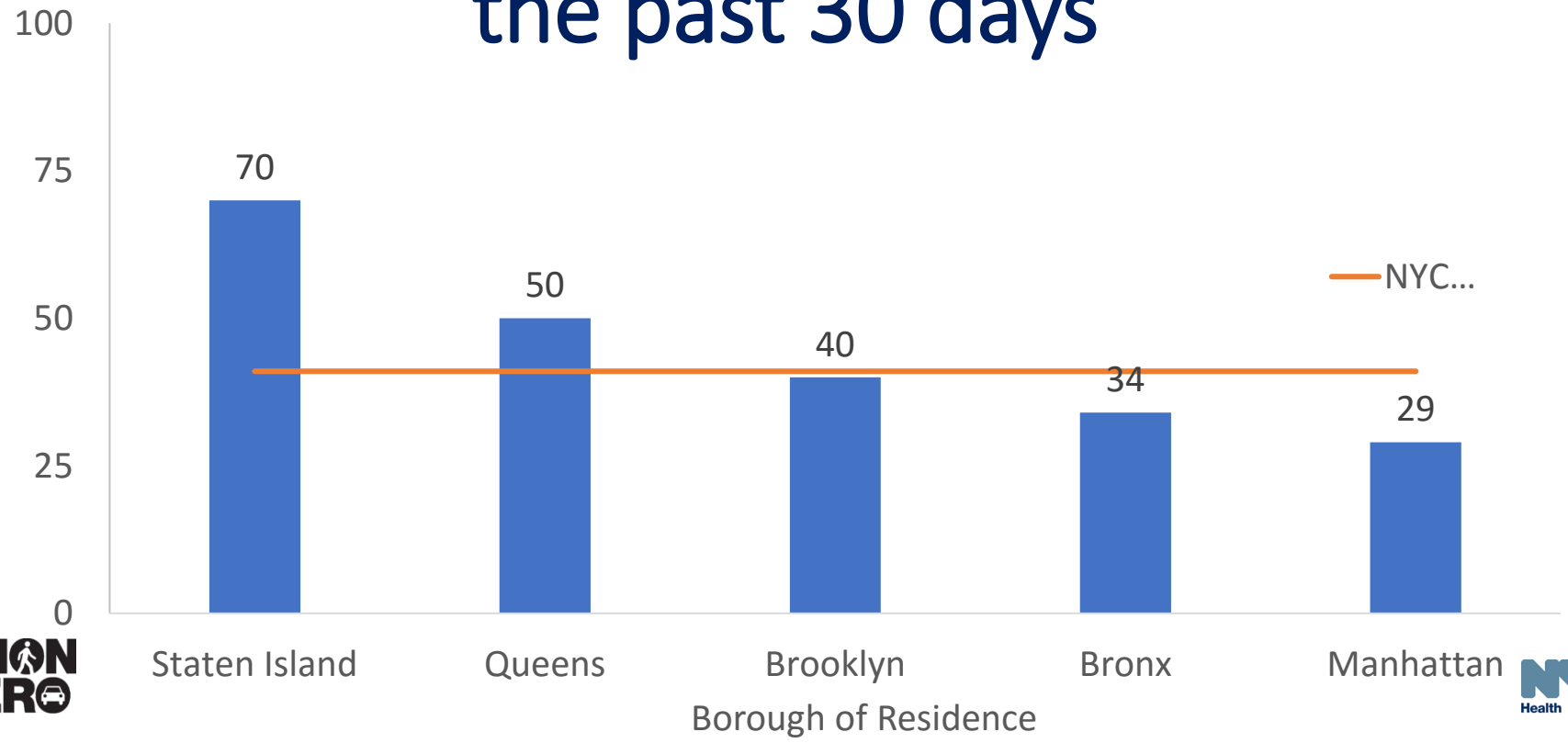
- (If drove): In the past 30 days, when you drove in New York City, how often did you drive 10 miles per hour or more over the posted speed limit? [Often, sometimes, rarely, never]

- (If drove): In the past 30 days, when you drove in New York City, how often have you read or sent a text message or email while you were driving? [Often, sometimes, rarely, never]

VISION ZERO

NYC Health

Nearly 2.7 million adults, less than half of NYC adults, drove a vehicle in the past 30 days



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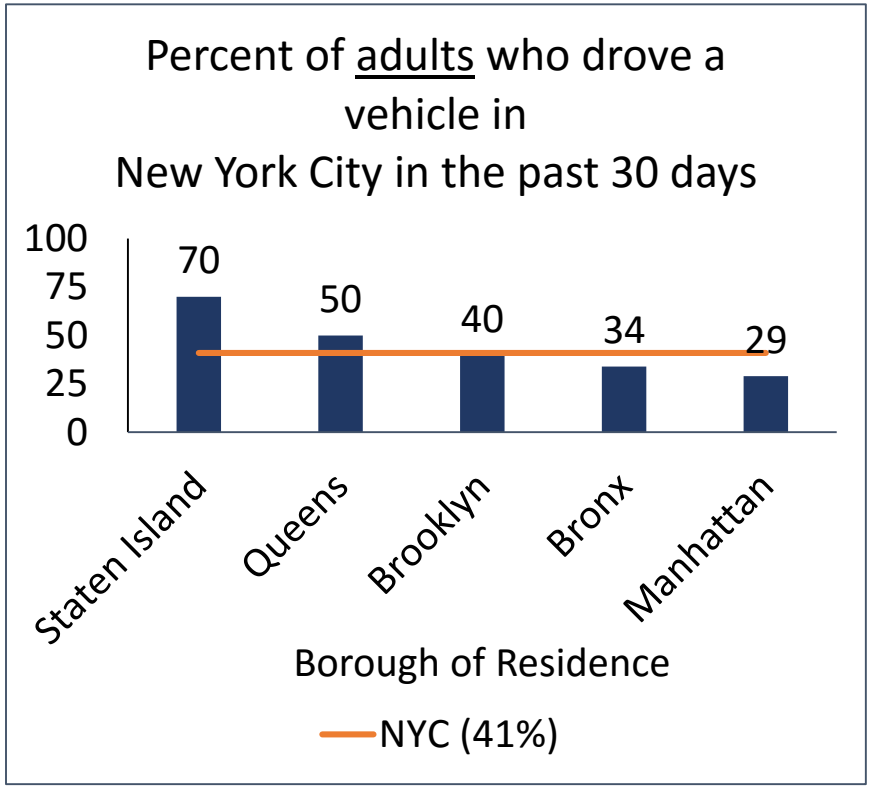
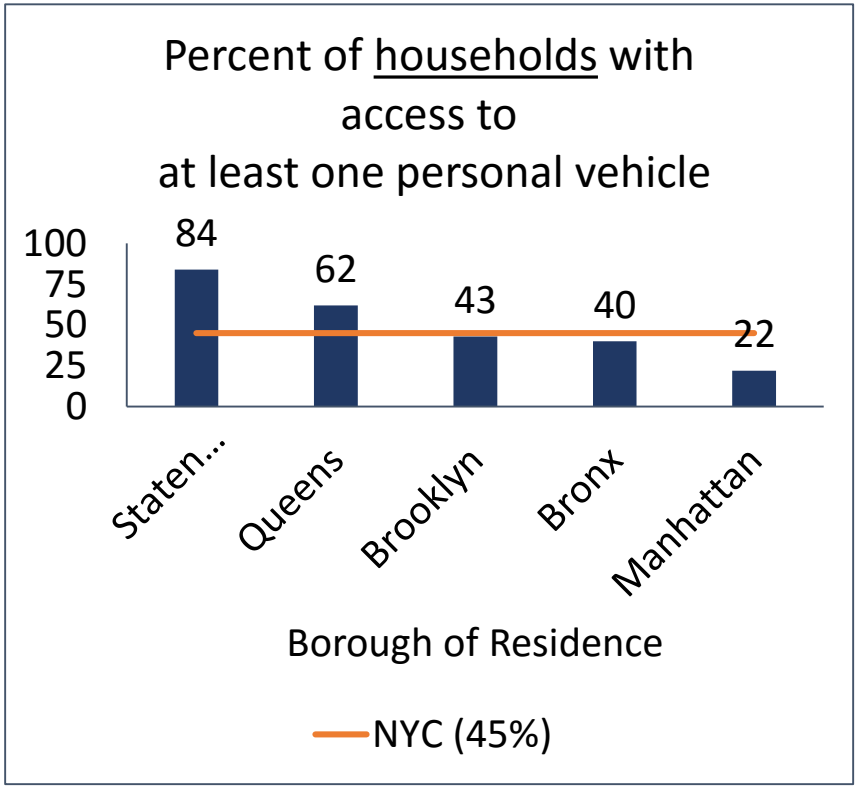
NYC Health

Driving patterns reflect personal vehicle availability patterns

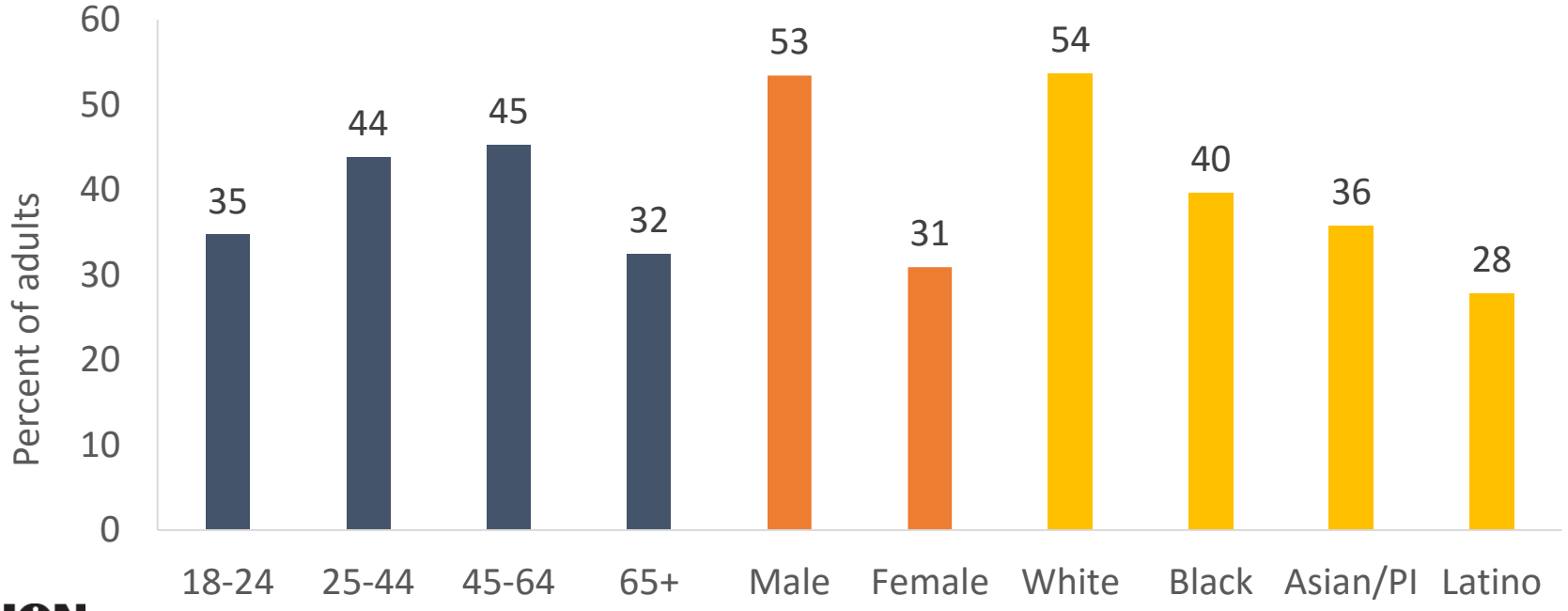




Sources: NYC Community Health Survey 2015

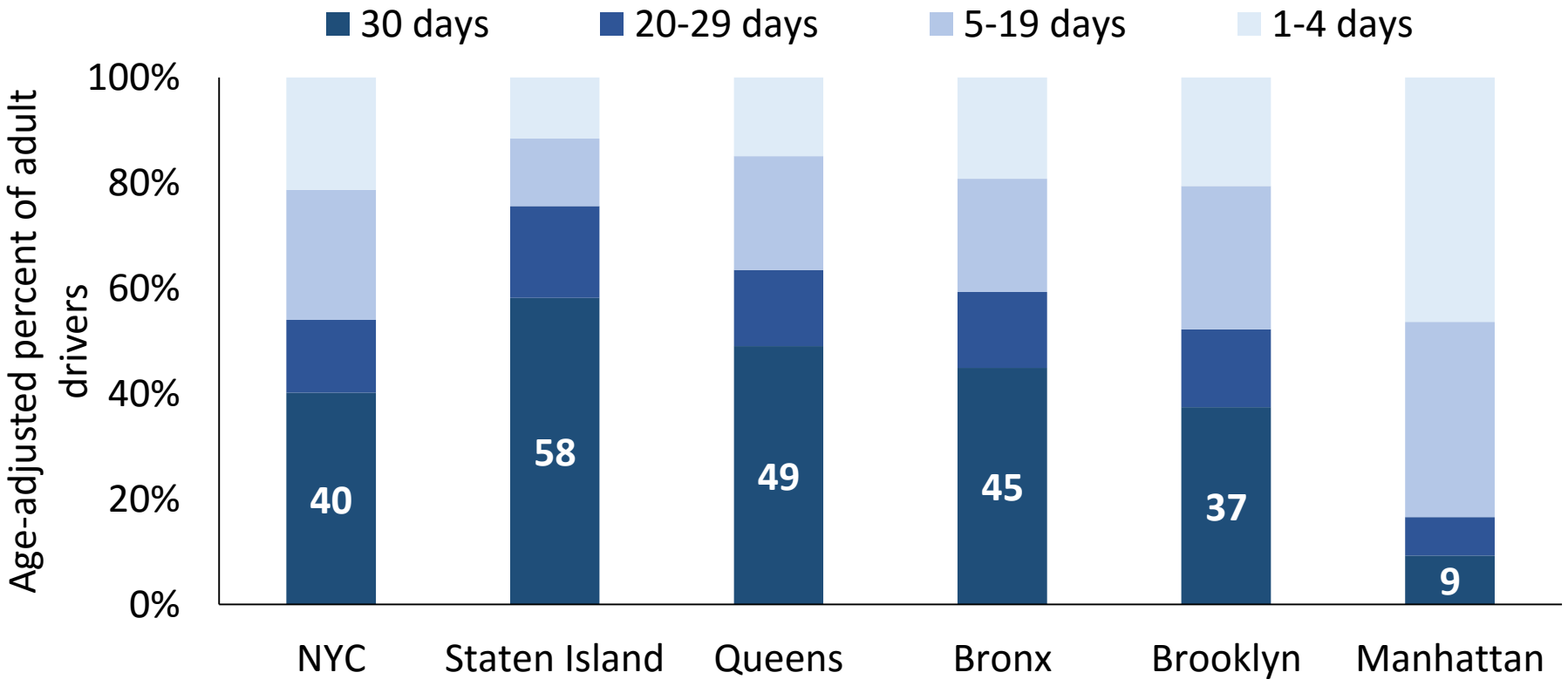
American Community Survey 2010-2014

Adults aged 25-64 years, males, and White adults are more likely to drive



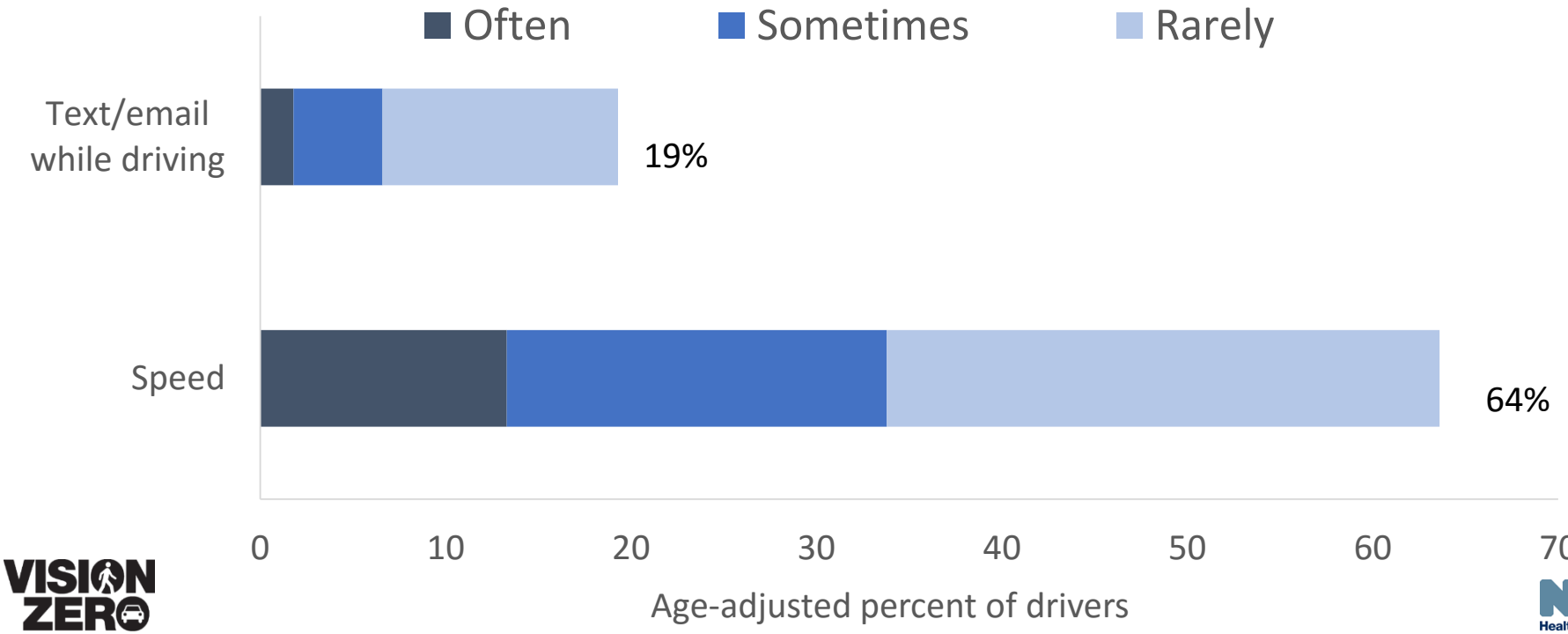
Source: NYC Community Health Survey 2015

Many drivers drove every day (except those living in Manhattan)



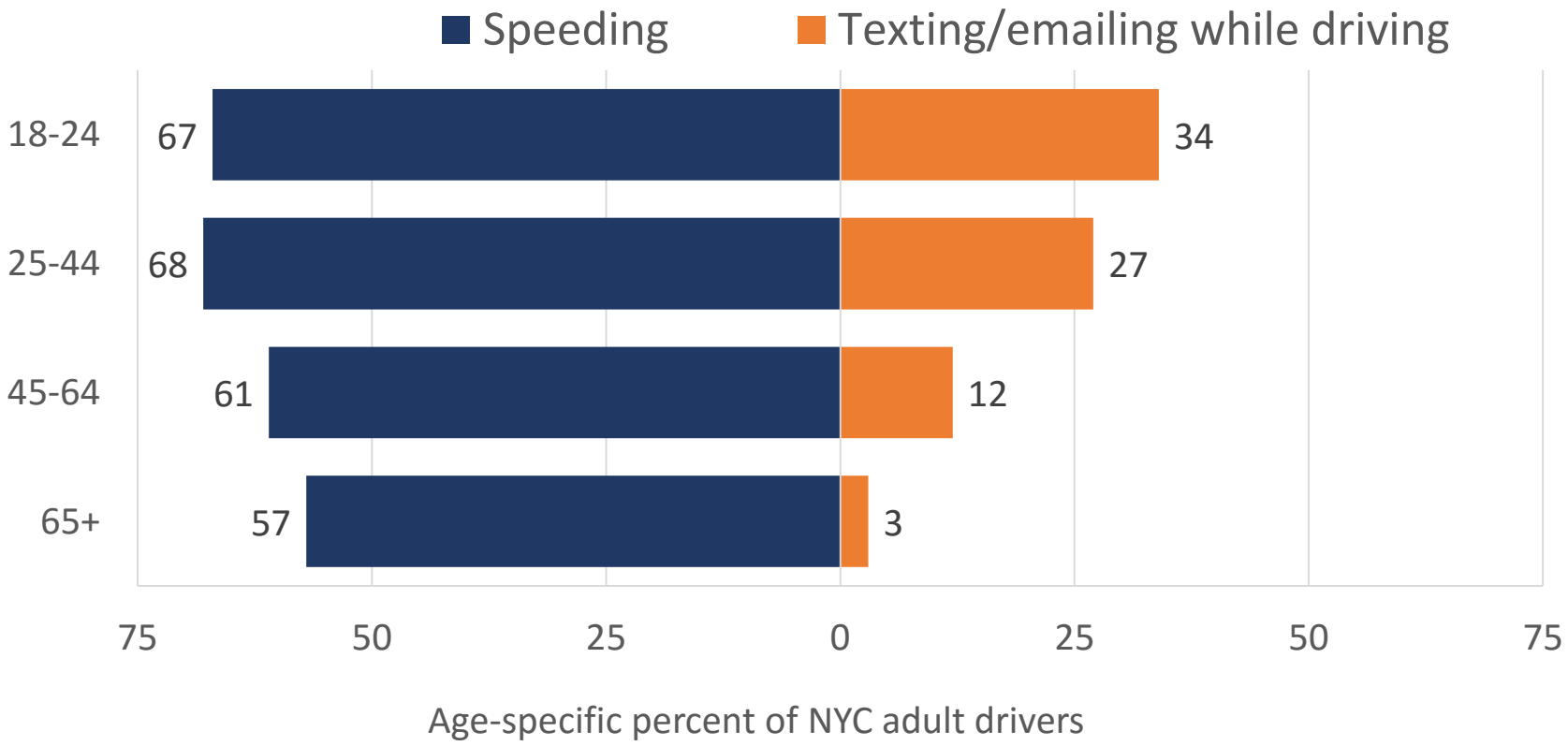
Source: NYC Community Health Survey 2015

Self-reported speeding is common



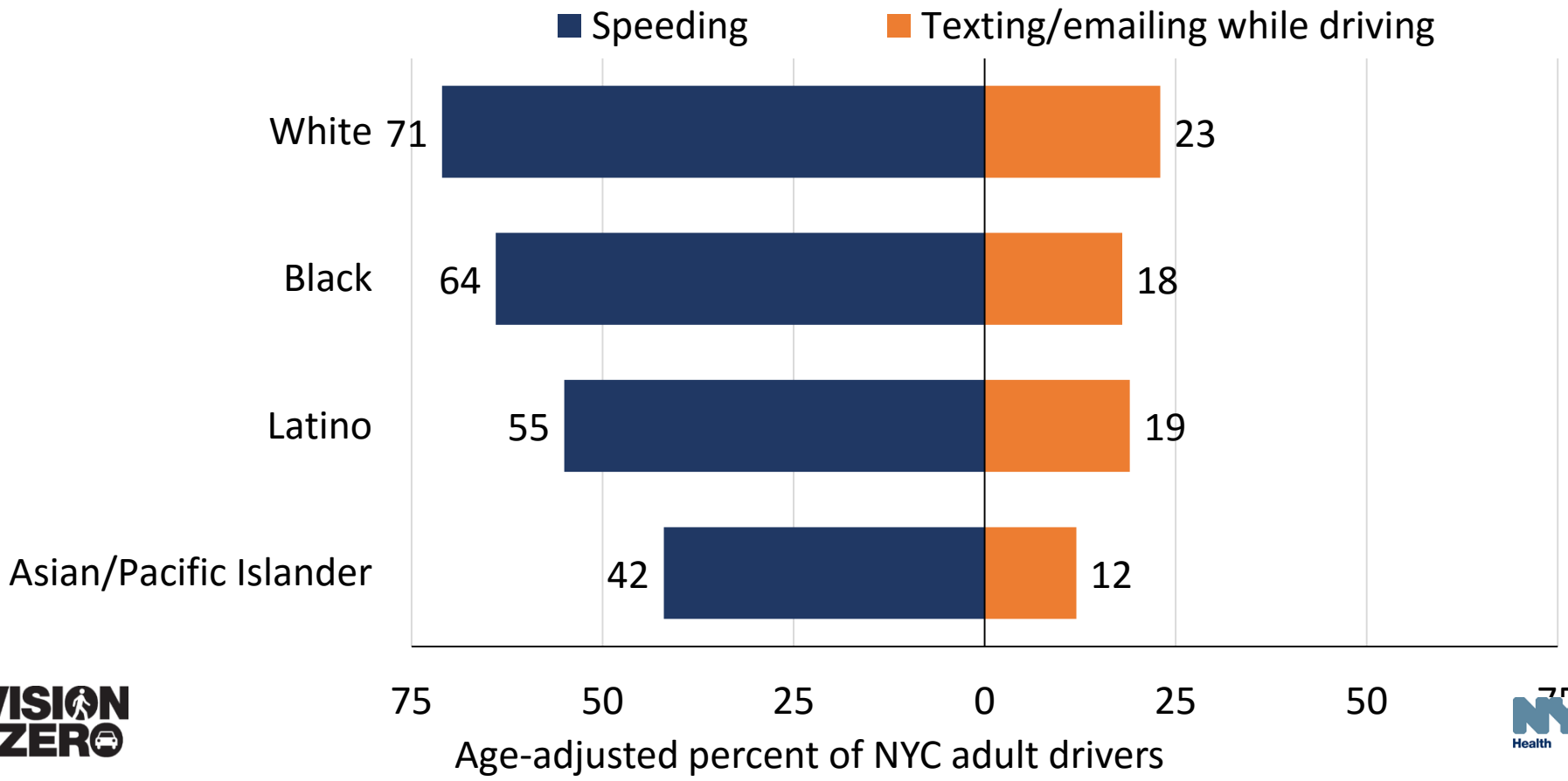
Source: NYC Community Health Survey 2015

Speeding is common among all age groups; Texting is more common among younger drivers



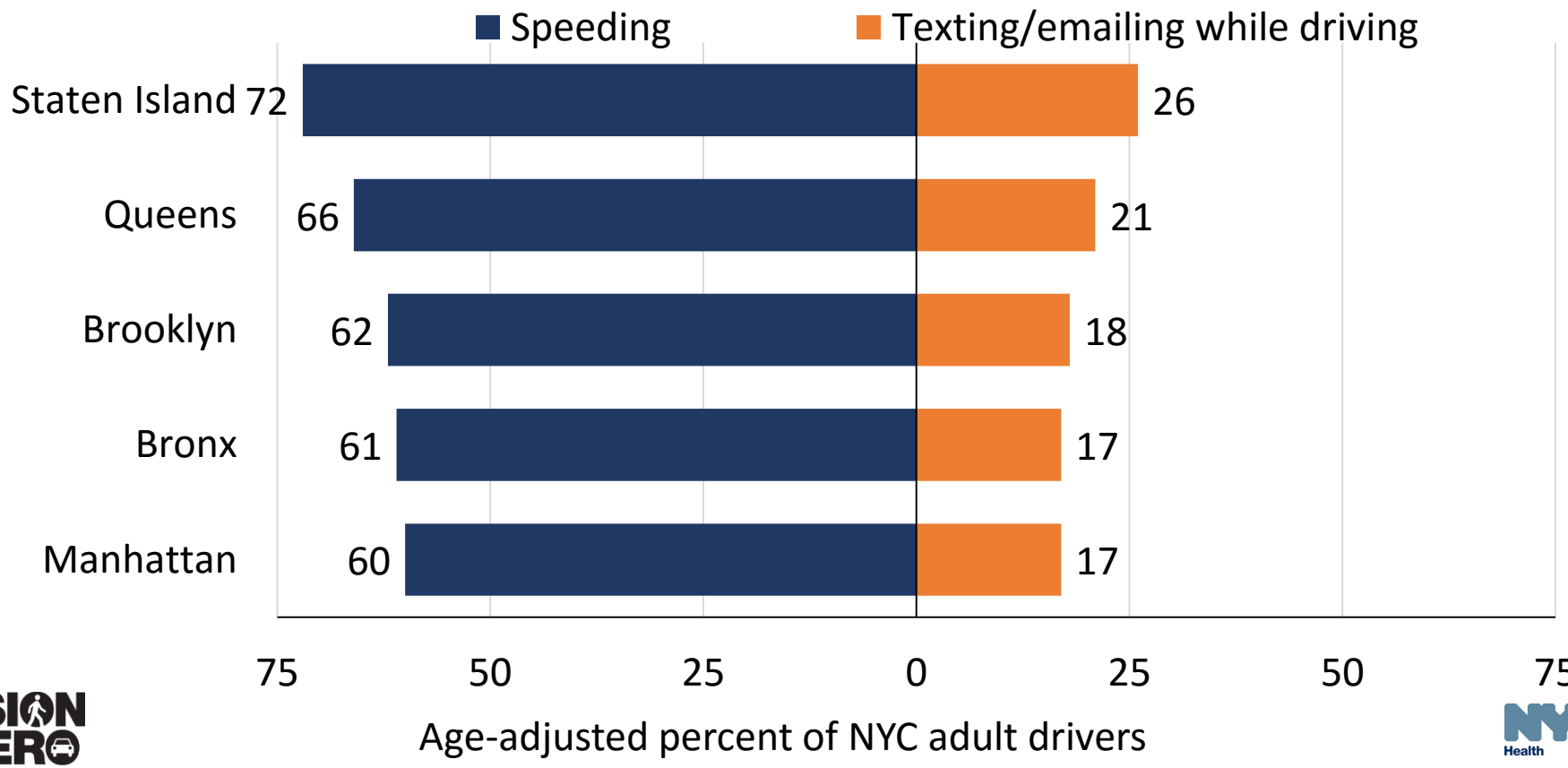
Source: NYC Community Health Survey 2015

Speeding is more common among White drivers



Source: NYC Community Health Survey 2015

Drivers living in Staten Island are more likely to speed and more likely to text or email while driving.



VISION ZERO

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Source: NYC Community Health Survey 2015

Strengths and limitations

- Strengths
  - First population-based data on local driving behaviors, including demographic and geographic characteristics
  - Offers ability to monitor impact of Vision Zero initiatives on driving behaviors over time

- Limitations
  - Potential for social desirability bias in self-reported data
  - Did not collect information on where respondents drove
  - Annual sample size not robust enough for full assessment of neighborhood patterns or multiple stratifications

VISION ZERO

NYC Health

For more information:

www.nyc.gov/health/epiquery

EpiQuery Home ▶ Community Health Survey ▶ Results

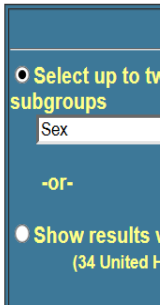
Drove a motor vehicle in NYC past 30 days, 2015 (Age-adjusted)

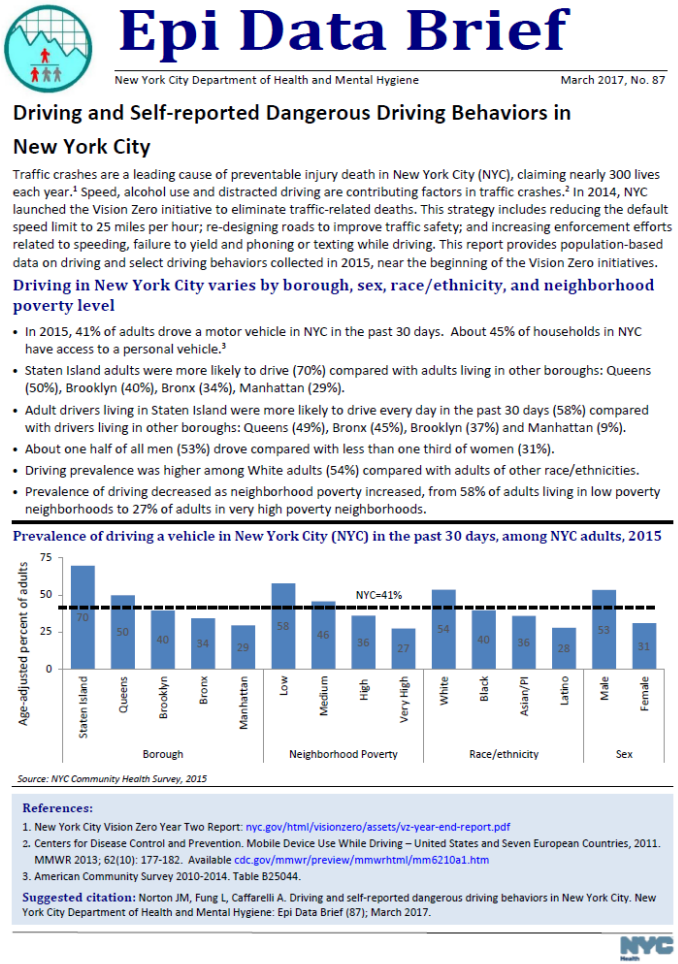
Drove a motor vehicle in NYC past 30 days: Respondents were asked if they have driven a car/motor vehicle in NYC in the past 30 days.

New York City Results

Answer	Age-adjusted Percentage (95% Confidence Interval)†	# of adults**
Yes	41.1% (39.8 - 42.5)	2,684,000
No	58.9% (57.5 - 60.2)	3,811,000

** Estimated number of adults (aged 18 and over unless age restriction noted above) is unadjusted for age and rounded to the nearest 1,000.
† Confidence Interval (CI) is a measure of estimate precision: the wider the CI, the more imprecise the estimate.





Epi Data Brief

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Prevalence of driving a vehicle in New York City (NYC) in the past 30 days, among NYC adults, 2015

Source: NYC Community Health Survey, 2015

References:

1. New York City Vision Zero Year Two Report: nyc.gov/html/visionzero/assets/vz-year-end-report.pdf
2. Centers for Disease Control and Prevention. Mobile Device Use While Driving – United States and Seven European Countries, 2011. MMWR 2013; 62(10): 177-182. Available cdc.gov/mmwr/preview/mmwrhtml/mm6210a1.htm
3. American Community Survey 2010-2014. Table B25044.

Suggested citation: Norton JM, Fung L, Caffarelli A. Driving and self-reported dangerous driving behaviors in New York City. New York City Department of Health and Mental Hygiene: Epi Data Brief (87); March 2017.

VISION ZERO

NYC Health

Acknowledgements

- Jennifer M. Norton
- Lawrence Fung
- Catherine Stayton
- NYC DOHMH Epi Services Survey and Data Teams

Thank you

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NYC Health


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Presented by

Linda Hill, MD, MPH

Professor, Department of Family Medicine and Public Health
University of California, San Diego

UC San Diego
SCHOOL OF MEDICINE

TREDS
TRAINING, RESEARCH AND EDUCATION FOR DRIVING SAFETY

Distracted Driving

What is Distracted Driving?

- Any activity that could divert a person's attention away from the primary task of driving

- All distractions endanger driver, passenger, and bystander safety

Caught on Camera

Commercial Drivers

Commercial Drivers

The Problem

Phones are getting “smarter”

More people are using them

We can’t put them down…
…even while driving!

More People are Using Them

1985 340,213 subscribers
(1.4% of total U.S. population)

2015 377.9 million subscribers
(118% of total U.S. population)

We Can't Put Them Down…

Do you have "Nomophobia?"

Anxiety caused by fear of being without one's mobile phone

[from **no** + **mo**(bile) + **phobia**]

Nomophobia

Affects 66% of us

Warning signs include:

- Always leaving your phone on
- Obsessively checking for missed calls, emails and texts
- Constantly topping off your battery
- Taking your phone into the bathroom with you

NHTSA

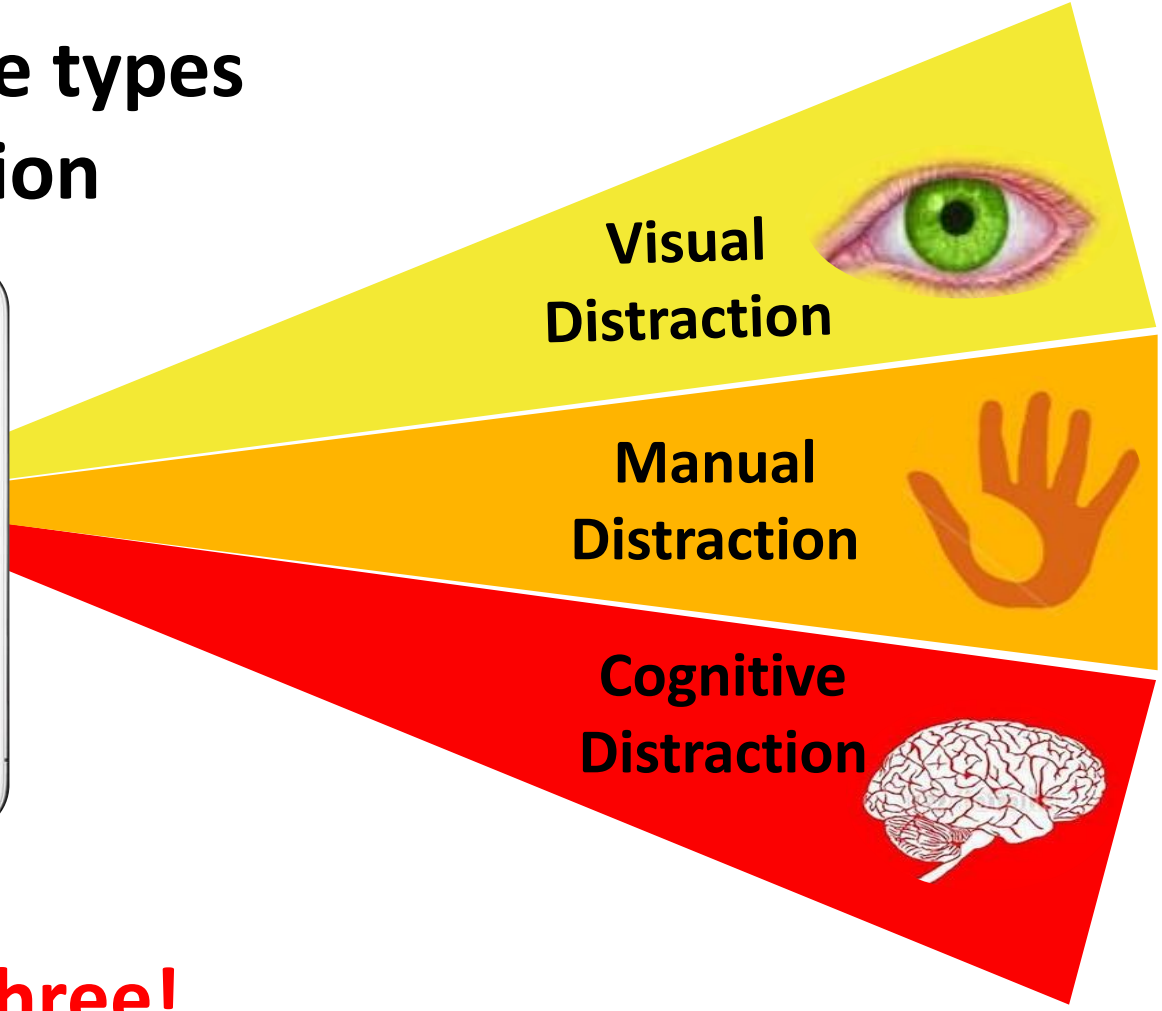
391,000 injuries
3,477 deaths

caused by distraction-affected crashes in 2015

The Forces Collide

There are three types of distraction

Texting involves all three!



Cognitive Distraction

- When performing two thinking tasks, the brain switches quickly between them
  - **Attention to driving becomes secondary to a phone conversation**

- Drivers on cell phones **look at, but fail to see,** up to **50 percent** of the information in their driving environment

Tunnel Vision

Where drivers looked while not using a cell phone

Where drivers looked while using a **hands-free** cell phone

Inattention Blindness

While driving, have you ever…

- Missed an off ramp exit
- Missed a stop sign or red light
- Not seen brake lights in front of you
- Arrived at your destination with no recollection of the trip

Let's Multi-Task

Say out loud:

- Alphabet **A-K**, then
- Numbers **1-11**

Now alternate…

A-1, B-2…

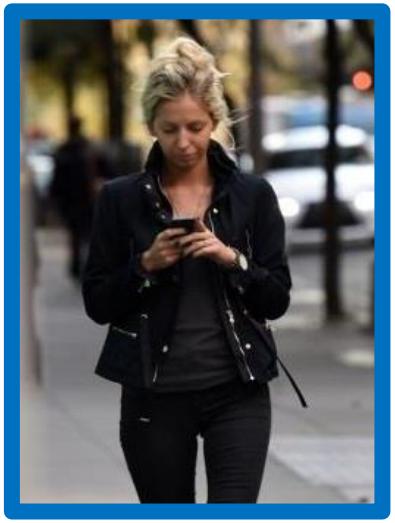
What Could You Miss?

Bicyclists

Skateboarders

Animals

Motorcycles



Pedestrians

What are the Risks?

Is Risk the Same?

Talking to a passenger

≠

Talking on a cell phone

No, due to “Shared Awareness”

Is Hands-Free Safer?

HANDS-FREE IS NOT RISK-FREE HANDS-FREE IS NOT RISK-FREE HANDS-FREE IS N

Talking Hands-free

Talking Handheld

No, both have 4x crash risk

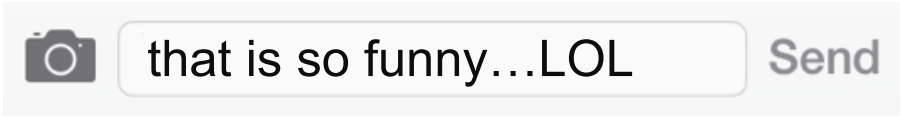
“Hands-Free”

Who Takes Longer to React?

Who Takes Longer to React?

Drivers talking on cell phones have longer reaction times

Texting and Driving

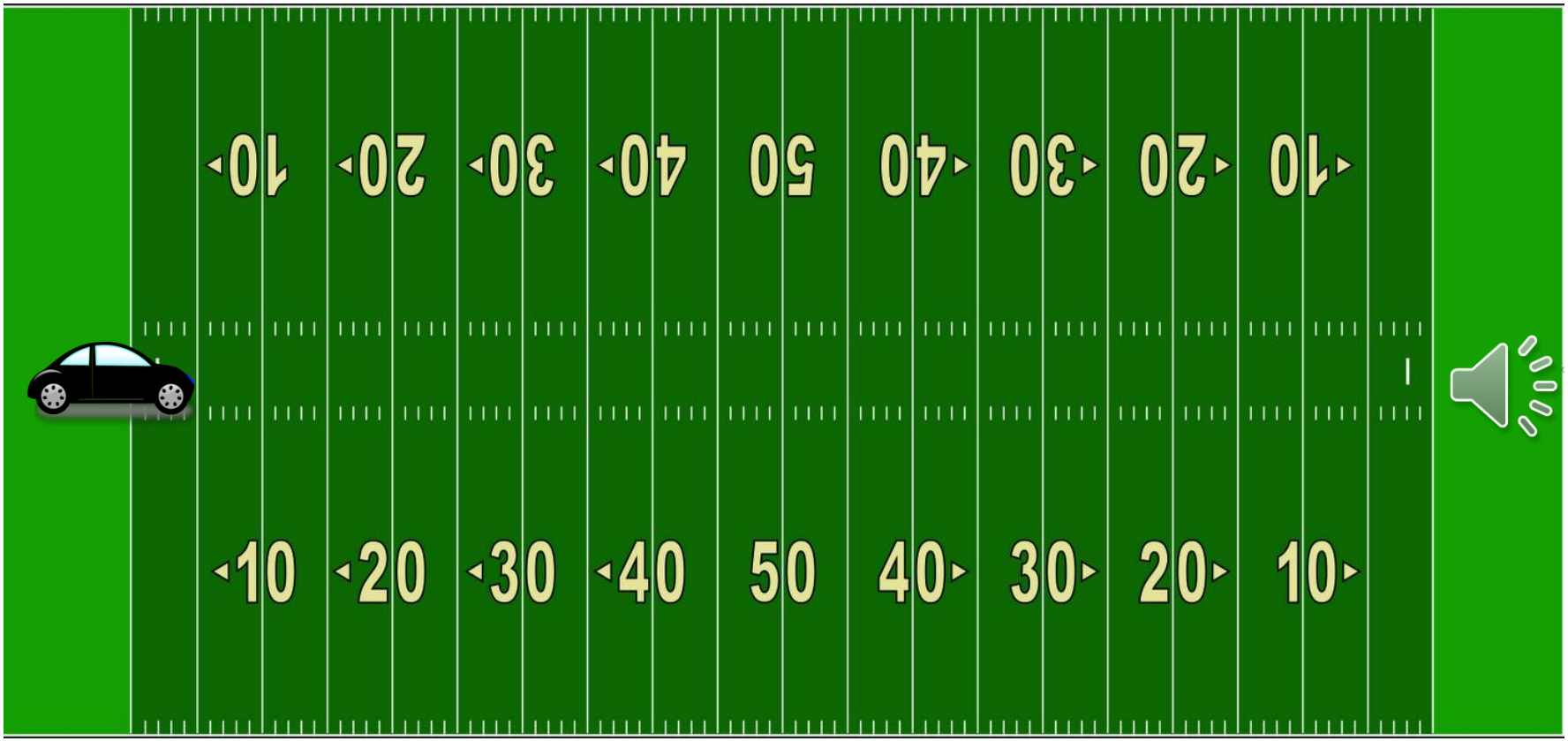


Is it still LOL 😂 ?

Crash risk is 8-23x

Voice-to-text more distracting than typing texts

“Home in 10”

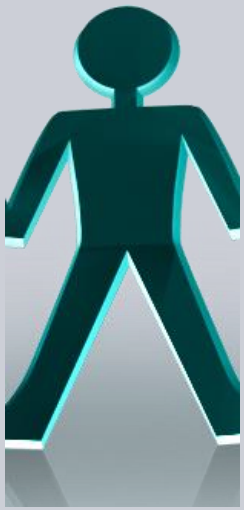
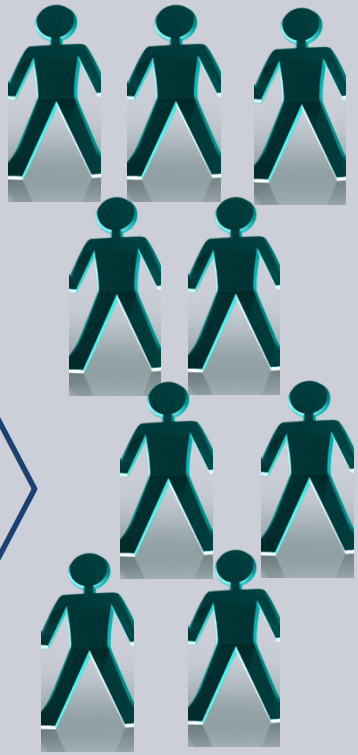
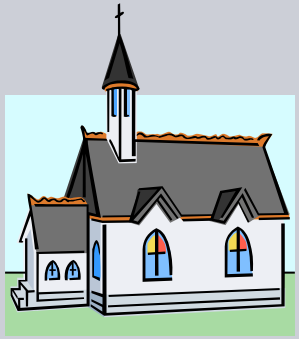
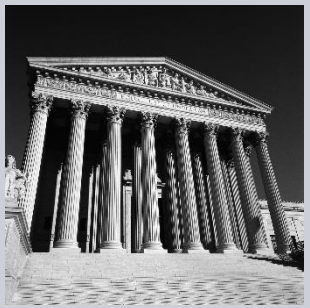


Average text = 4.6 seconds

4.6 seconds @ 55mph = 100 yards

In a Matter of Seconds

Take Action Against Distraction

Me	My Friends, Family, Coworkers	My Places	My Community
		  	  

Strategies Videos

Make a Pledge

Who loves me, who needs me:

My spouse

My child

My parent

With these people
to take steps to stop

Drive

I commit to this first step:

"Silence" my phone while driving

Every 30 Seconds

treds.ucsd.edu

Questions?

UC San Diego
School of Medicine

TREDS
TRAINING, RESEARCH AND EDUCATION FOR DRIVING SAFETY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Have you ever driven drunk?

Yes?…No?…Our little secret…

Now, have you ever driven drowsy?

18 hours of driving produces an impairment equal to BAC of .05…after 24 hours on the road it goes up to .10.

For reference, .08 is considered legally drunk.

In other words, driving drowsy is like driving drunk. To make matters worse, there is no test to determine sleepiness or fatigue.

Source: NHTSA

So who is at risk?

Adults between 18 – 29 yrs old. (These are your fleet drivers!)

Men are more likely to drive while drowsy (56% v 45%) and are almost twice as likely to fall asleep while driving.

People who sleep six to seven hours a night are twice as likely to be involved in a crash compared to those sleeping eight hours a night…Shocking right?!

Sleeping less than 5 hours a night increases your risk four to five times.

60% of adults (approx. 168 million) have driven drowsy

37% (approx. 103 million) have fallen asleep at the wheel

4% (approx. 11 million) have admitted to having an accident or near miss because of drowsiness

Source: National Sleep Foundation

Drowsy Driving Accidents (per year)

100,000 police reported crashed directly from driver fatigue

71,000 injuries

800+ deaths (underreported, thought to be as high as 6000)

$12.5 billion in monetary losses

Source: NHTSA

So what does this mean for you?

- Injuries, death
- Monetary loss/Higher insurance premiums
- Fleet vehicles down
- Loss of productivity
- Lower employee moral
- Sleeping monster that no one is aware of

What are the Solutions?

- Driver Fatigue Systems
  - Audible Alert
  - Vibration Alarms
- Responsive DVR Alerts
- Telematics & Training
- Scheduling
- Focus on healthy drivers, set protocols, and best practices

Get Sleep! Let your Drivers sleep!

Dangers of Drowsy Driving and Driver Fatigue and How it Effects Fleets

Thank You

JP WEAVER

DIRECTOR OF SALES

REAR VIEW SAFETY

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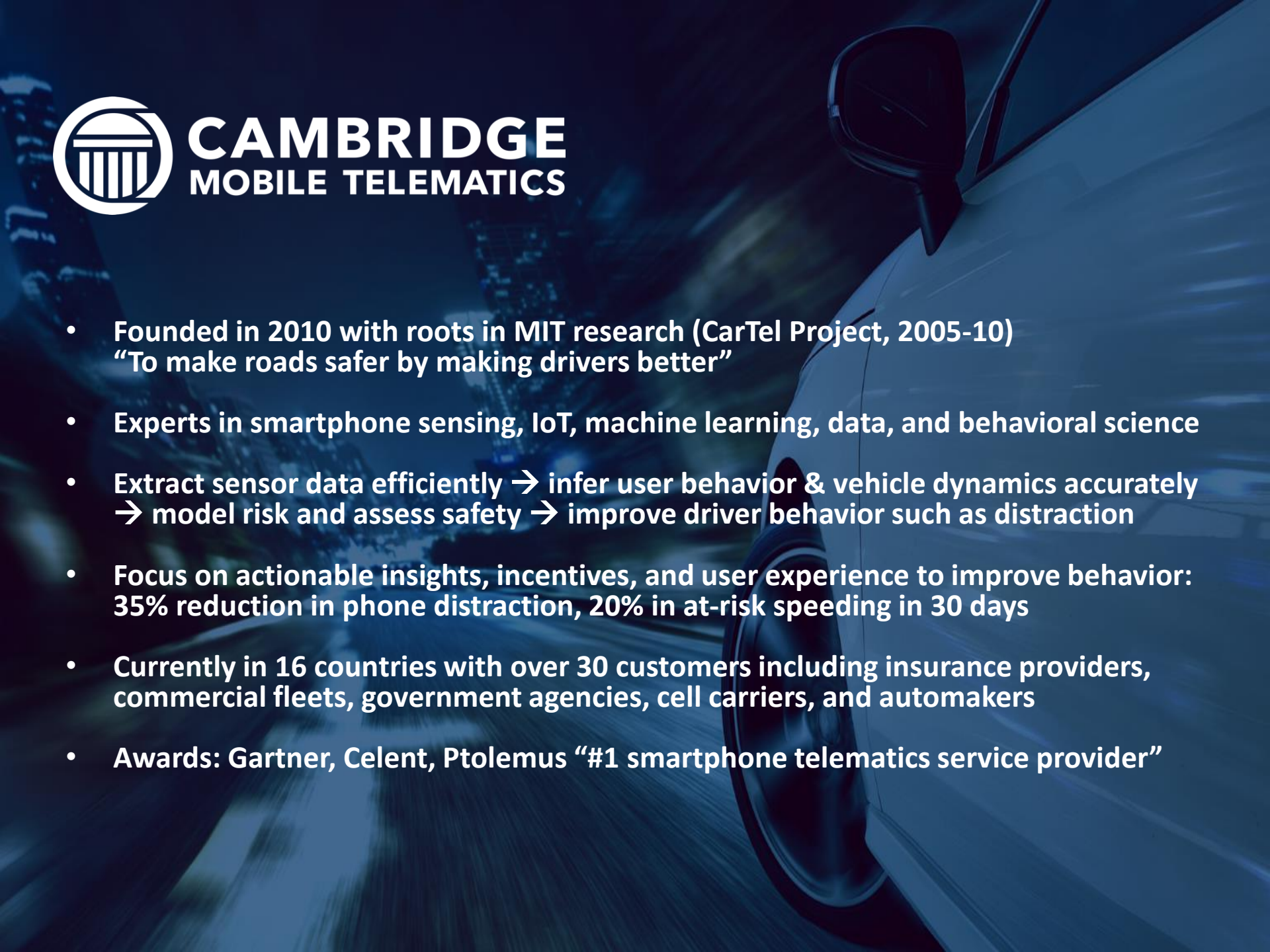
Making roads safer by making drivers better
Cambridge Mobile Telematics
www.cmtelematics.com

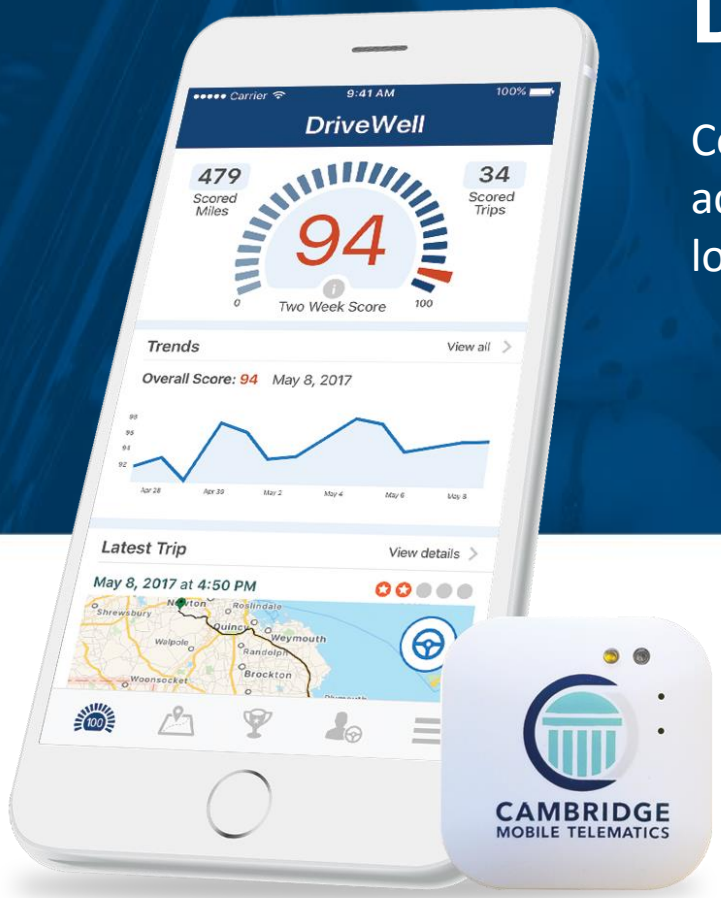


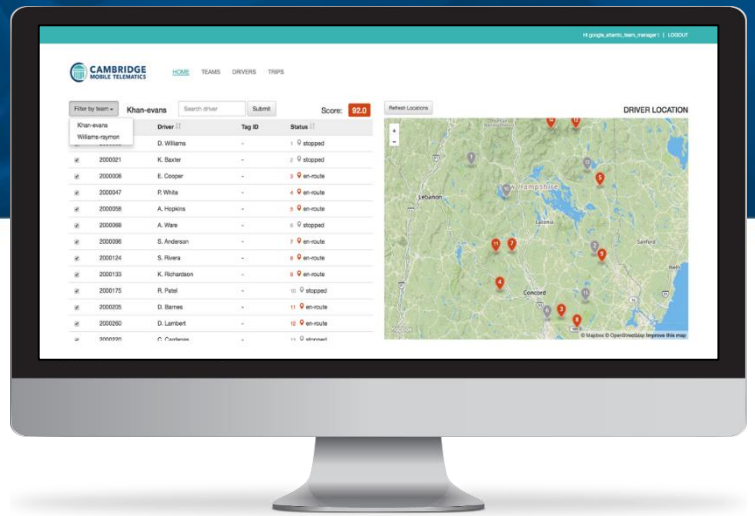
CAMBRIDGE MOBILE TELEMATICS

- Founded in 2010 with roots in MIT research (CarTel Project, 2005-10)
  "To make roads safer by making drivers better"
- Experts in smartphone sensing, IoT, machine learning, data, and behavioral science
- Extract sensor data efficiently → infer user behavior & vehicle dynamics accurately → model risk and assess safety → improve driver behavior such as distraction
- Focus on actionable insights, incentives, and user experience to improve behavior: 35% reduction in phone distraction, 20% in at-risk speeding in 30 days
- Currently in 16 countries with over 30 customers including insurance providers, commercial fleets, government agencies, cell carriers, and automakers
- Awards: Gartner, Celent, Ptolemus "#1 smartphone telematics service provider"

DriveWell Fleet Program

Complete telematics and analytics solution that provides actionable insights on driver behavior and vehicle location for fleet businesses and commercial insurers.





Fleet Program Key Features

Mobile App for fleet drivers

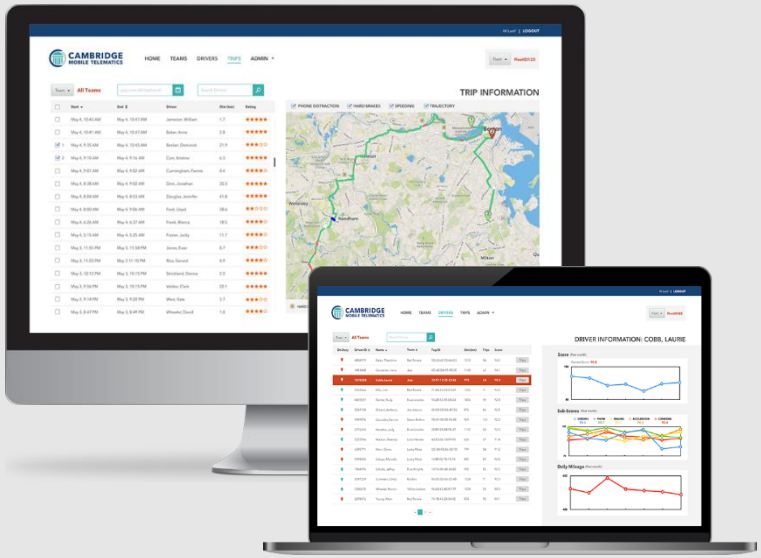
On-duty trip-recording only
(with dynamic on/off duty)

Feedback on driving behavior
(scores, trends, training videos)

Teams
(team scores, trends)

Gamifications
(leaderboards, competitions)

Fleet Program Key Features



Web portal for fleet managers

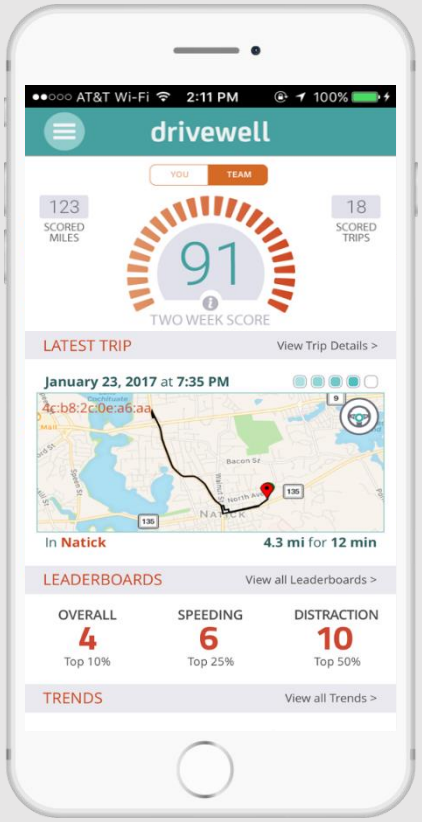
Monitor driving behavior
(motivate to improve)

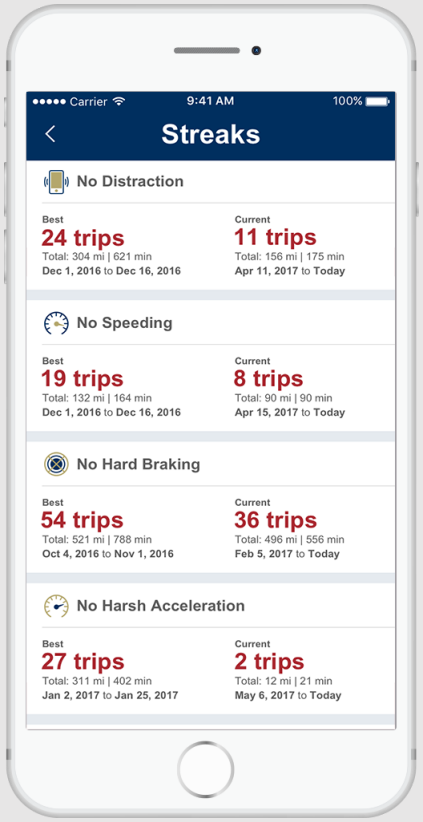
Track team locations
(compare to schedules)

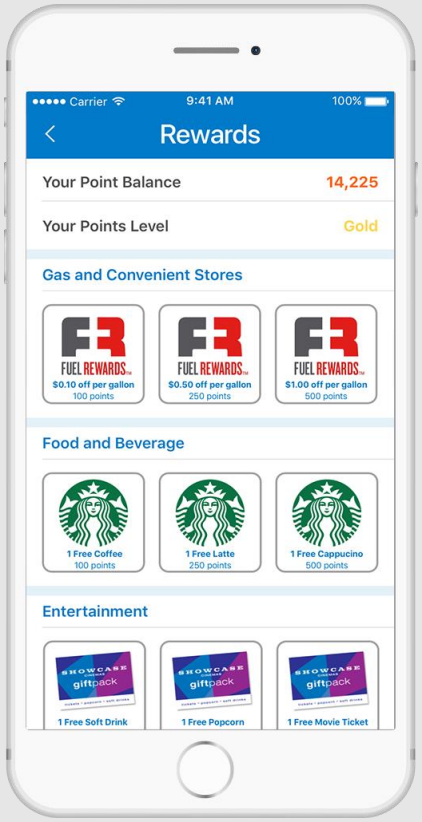
Trip history
(sequential drives in period)

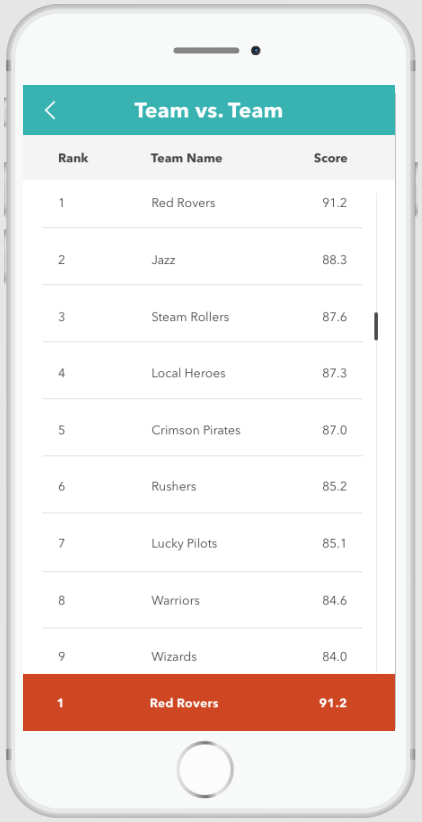
Reports
(driver scores & trip histories)

Motivate Driver's with Gamification

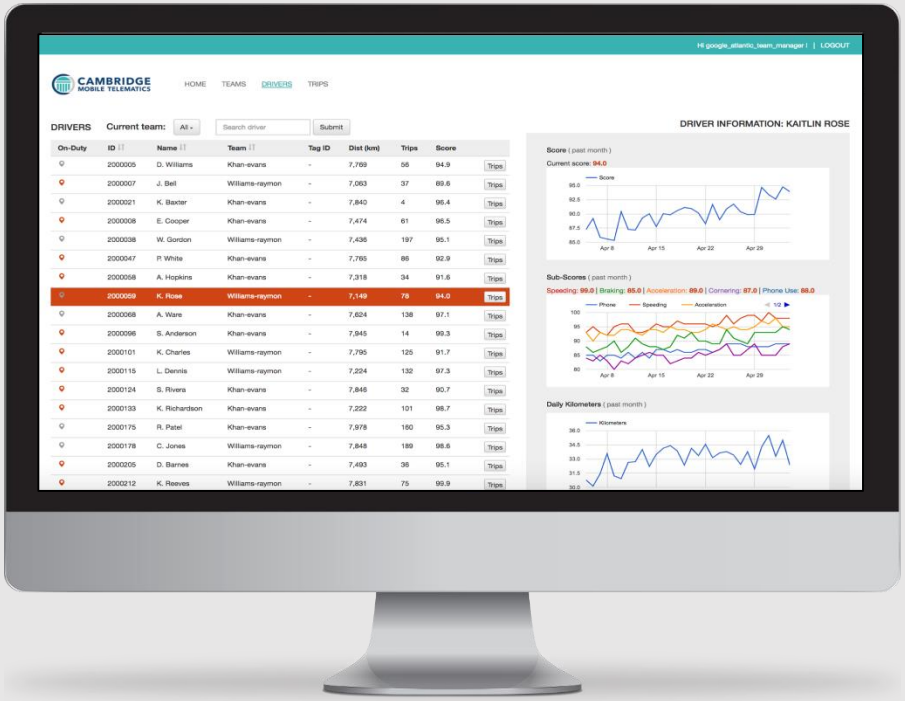


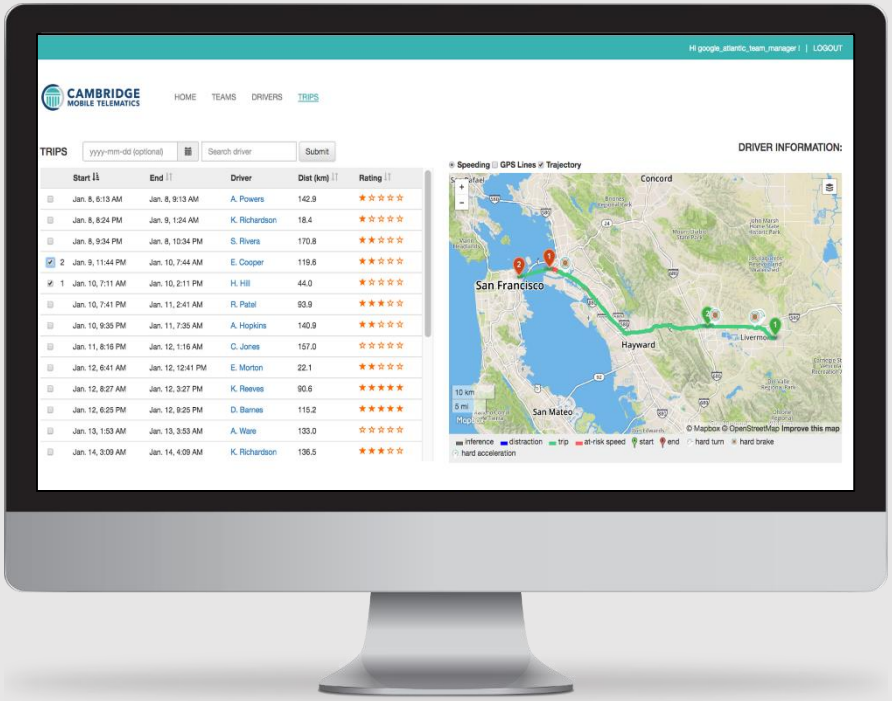






Provide Managers Insight into Behavior





Increasing Safety & Efficiency

Improving fleet driver behavior increases safety

Employee safety
Reduction in accidents & claims
Crash detection & impact alerts

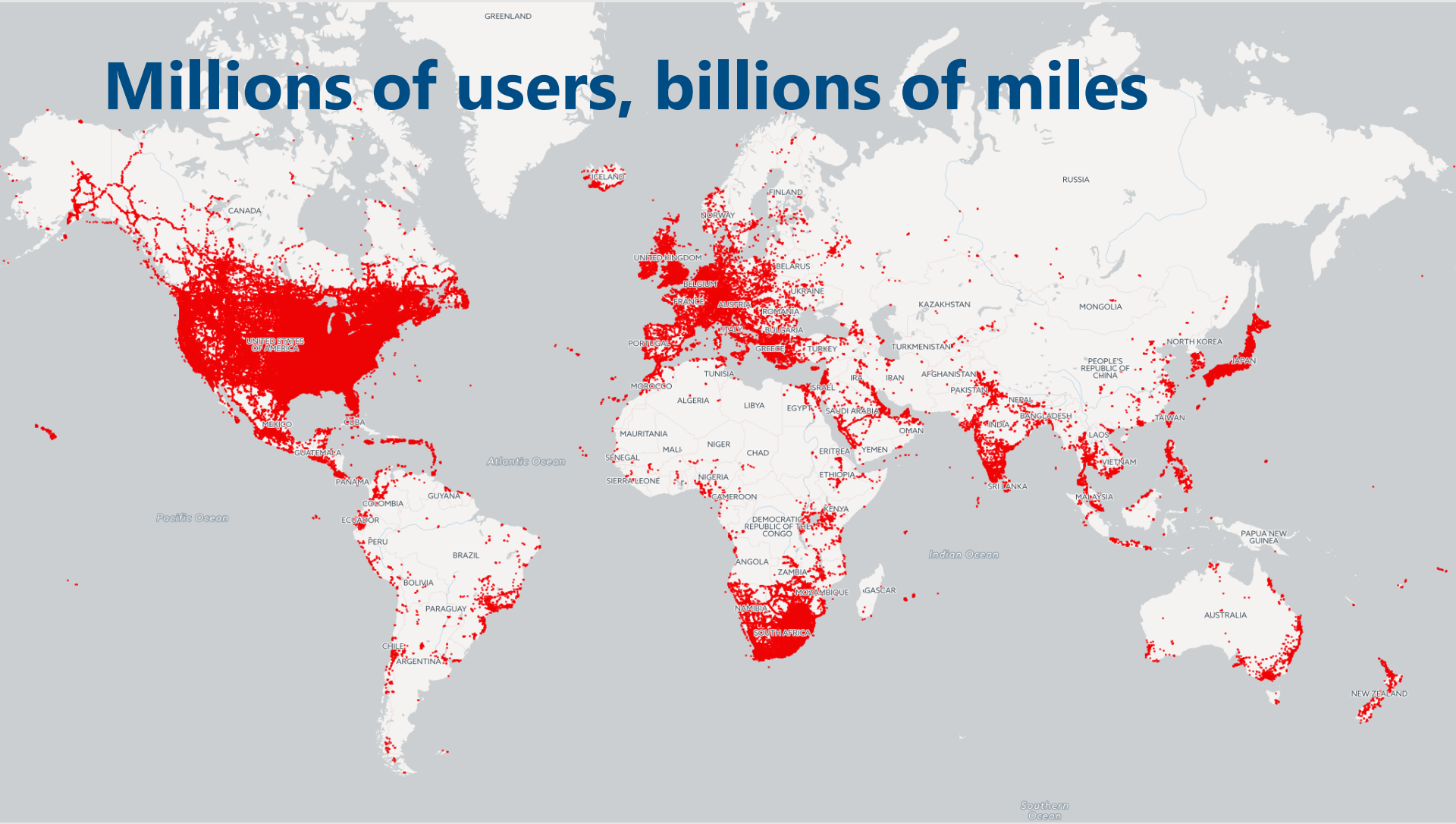
Vehicle maintenance
Measure miles
Repair & replacement frequency

Real-time fleet location & driver job status increases efficiency

Employee productivity
Dynamic schedule adjustments
Field support for each other

Driver-location identification
Investigate poor driving reports

Millions of users, billions of miles

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UPS Driver Safety Training

Essential Components of UPS' Fleet Safety Program

- Drivers
  - Driver Selection Process/Qualifications
  - Driver (and Trainer) Training
  - Driver Behavior
  - Recognition (formal & informal)
- Selection & Qualifications
  - Clean MVR 12 mo, No major infractions/crashes 3 years
  - Road Test Demerit system
  - Physical Qualifications & validation
- Vehicle Safety and Design
- Policies & Procedures
  - Crash Reporting/Analysis/Cost allocation
  - Distracted Driving
  - Hours of Service
  - Drug & Alcohol
- Communication and Outreach

Training

- UPS employees receive over 3 million hours of safety training each year. In 2015, health and safety training comprised more than US$184 million of the US$844.9 million that we spent on total training.
- Safety training courses include UPS Safe Work Methods, which help address the major sources of known risk to our employees, as well as annual and periodic courses on defensive driving, accident investigation, respiratory protection, hearing conservation, conveyor safety, hazardous material/emergency response, and others.

Slip & fall training in Landover, Maryland, U.S.

See through package delivery vehicle allows trainers to ensure trainees learn safe loading techniques, Landover, Maryland, U.S.

History of UPS Integrad

What's in a name?

UPS Integrad: ***Integrated***, enhanced hands-on learning using technology and information designed for candidate ***graduation*** and completion.

The UPS Integrad Approach

Award Winning Curriculum

Teach me

Show me

Let me

The UPS Integrad Approach
Teamwork

- Four to six person teams
- Each group includes a facilitator
- Individuals are paired with a partner to allow for learning through doing and observing

The UPS Integrad Approach

Space & Visibility


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Virtual Reality Training
And Driver Safety

Defcon 5 Studios

CONTENTS

Lets Talk Numbers

DEFCON 5 STUDIOS

Let’s talk numbers

Collisions /Statistics

- Weather (Sudden Visibility Reductions such as snow Pose Big Danger, Ice) –
  - 1,561,430 collisions reported annually.
  - Estimated 57% of all collisions are not reported. Total 2.5+ M. 673k injuries, 7.5k fatalities.
- Cell Phones - 24,000 injuries, 995 fatalities
- Distracted driving worse than drunk driving
  - Drunk Driving – 4X more likely to crash, needs 4 extra feet breaking distance to react
  - Texting(Distracted Driving) – 8x more likely to crash, needs 70 extra feet more to react
  - Eating and Drinking (Distracted Driving) – 80% more likely to have an accident.
- Drowsiness – 5500 fatalities,
- Aggressive Driving – 13k accidents, 200+fatalities
- Unintended Acceleration – 2000 accidents
- Cost – Vehicle Collisions cost employers $60 Billion annually and have residual costs of driving up benefit costs

What’s in your toolbox?

Current Training Methods

- Standard class room session
- Slides and props
- Books/Handouts/Guides
- Simulators
- Computer Based Training
- Videos
- Hands on experience the (Gold Standard)

DEFCON 5 STUDIOS

Practice makes perfect

Benefits of Simulators

- Reduce Training Risks –
  - Assets are expensive
  - Consequences can be catastrophic
- Faster Experience
  - More seat time
  - More exposure to scenarios and weather
  - Muscle memory
- Better Auditing
  - Analyze every aspect of the simulation
  - Track historical progress
- Reduce Costs
  - Equipment wear and tear
  - Fuel costs
  - Instructor costs

Why virtual reality?

Standard vs. Virtual Reality Simulations

❖ Smaller footprint for same functionality

❖ Resilient to cabin changes

❖ Multi vehicle repurpose

❖Scalable (hardware and software)

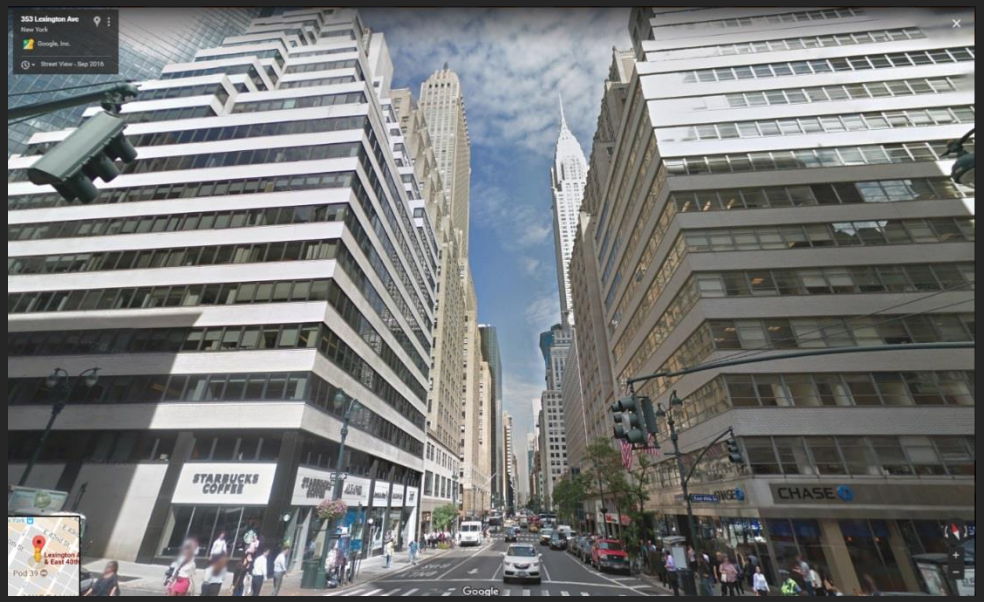
❖Fully immersive, evokes emotion

❖Ride along that are not bound by geography

❖Significantly less expensive for similar functionality

Seeing double

Realism and immersion are key



DEFCON 5 STUDIOS

Proof is in the pudding

Use cases

VR Gallbladder Surgery Use Case

- 29% faster gallbladder dissection
- 9 times less likely to fail
- Five times less likely to injure the gallbladder or burn non-target tissue

Simulator Training Georgia State

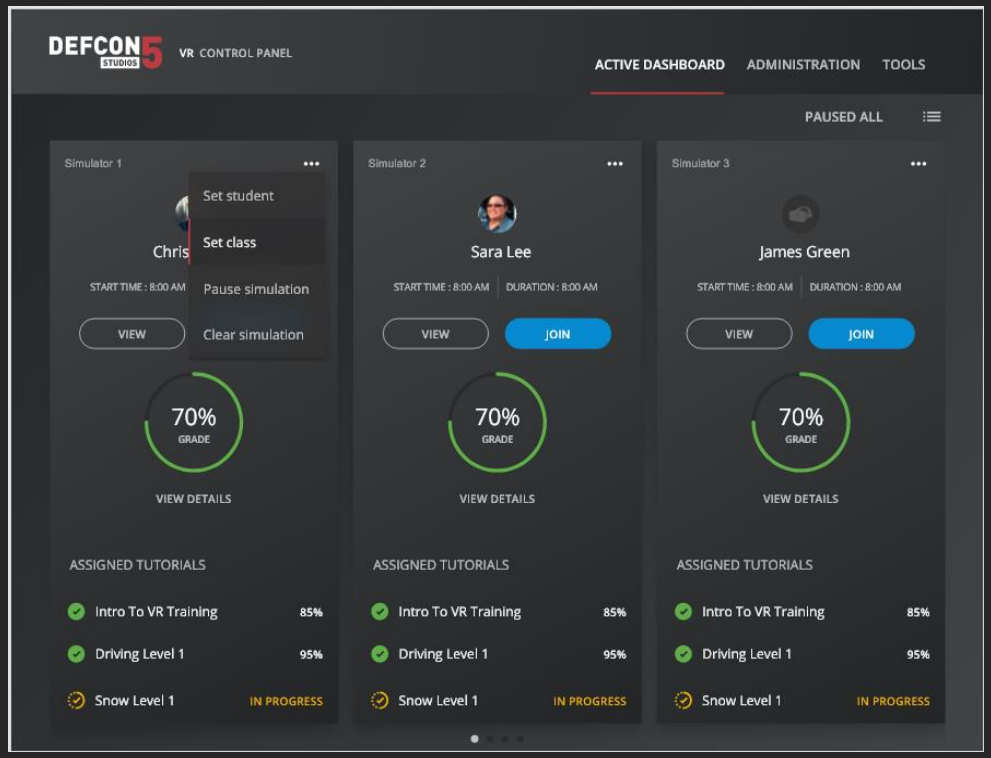
- Driving simulators placed in 147 high schools
- Simulations accounting for road hazards, weather, hydroplaning, parking, etc..
- 60% decline in student fatalities (181 teens) a year.

VR Forestry Training (after 25 hours of scenarios)

- 23% Increase in harvested wood
- 26% reduction in repair and maintenance costs

Watch good driving behavior…or not

Teacher Control Panel Good Driving



Simulations can track good/bad behavior

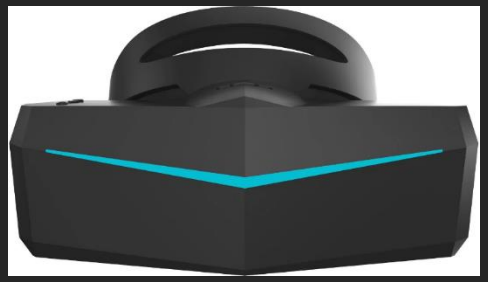
- Make smooth, gradual starts and stops.
- Use reference points to know exactly where your car is positioned.
- Before putting your foot on the gas pedal, see that the targeting path is clear.
- Visualize the Target Area; then evaluate the 12-15 second ranges en route to it.
- When your LOS-POT (Line-Of-Sight, Path-Of-Travel) becomes restricted, reduce your speed.
- Adjust speed and position to keep empty space to the side.
- When you see a red light, reduce speed to time your arrival into a green light.
- Before entering any intersection, check that the left, front right zones are clear.
- When your foot goes on the brake, check the rearview mirror.
- Before moving your vehicle to either side, check your blind spots.
- Keep four seconds of following time from the front vehicle.

DEFCON 5 STUDIOS

What's Next in VR?

Awesomeness

- Gloves instead of controllers
- Hand and finger tracking
- Sensory feedback



- 4k per eye. 8k total headset
- Eye tracking
- 200 degree FOV

THANK YOU!

Any Questions?

Mohamed Ashry

DEFCON 5 STUDIOS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