

FINDINGS OF THE COMMISSION ON AV TESTING AND SAFETY

Amitai Bin-Nun

VP, Autonomous Vehicles and Mobility Innovation

October 23, 2017

WHO IS SAFE?

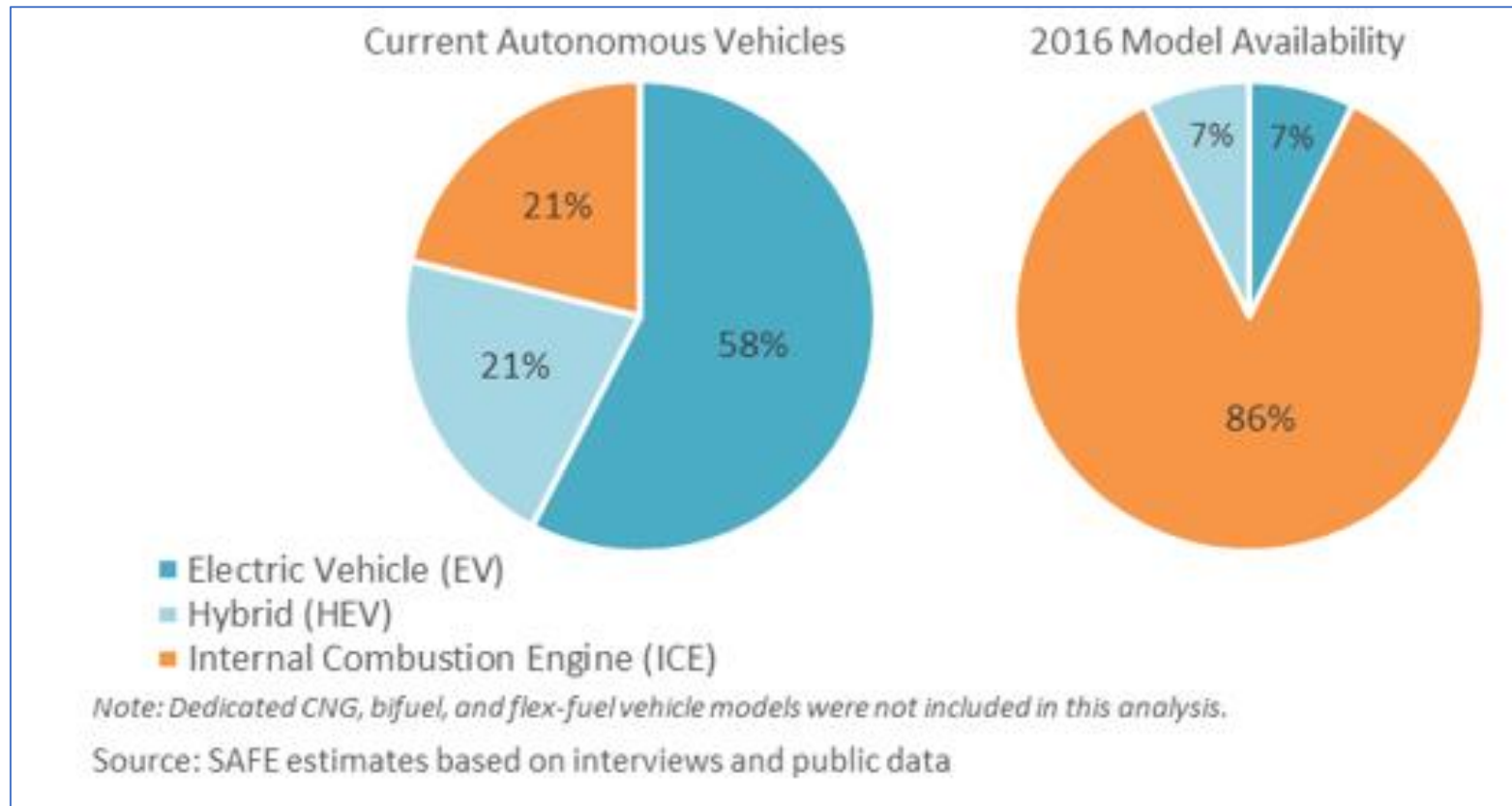


SAFE POSITION ON AUTONOMOUS VEHICLES

SAFE advocates for policies to accelerate the deployment of autonomous vehicles and maximize the benefits they offer society

AV: I JUST WANT TO BE... EV?

Autonomous vehicles by Powertrain Type



TELLING THE BROADER STORY

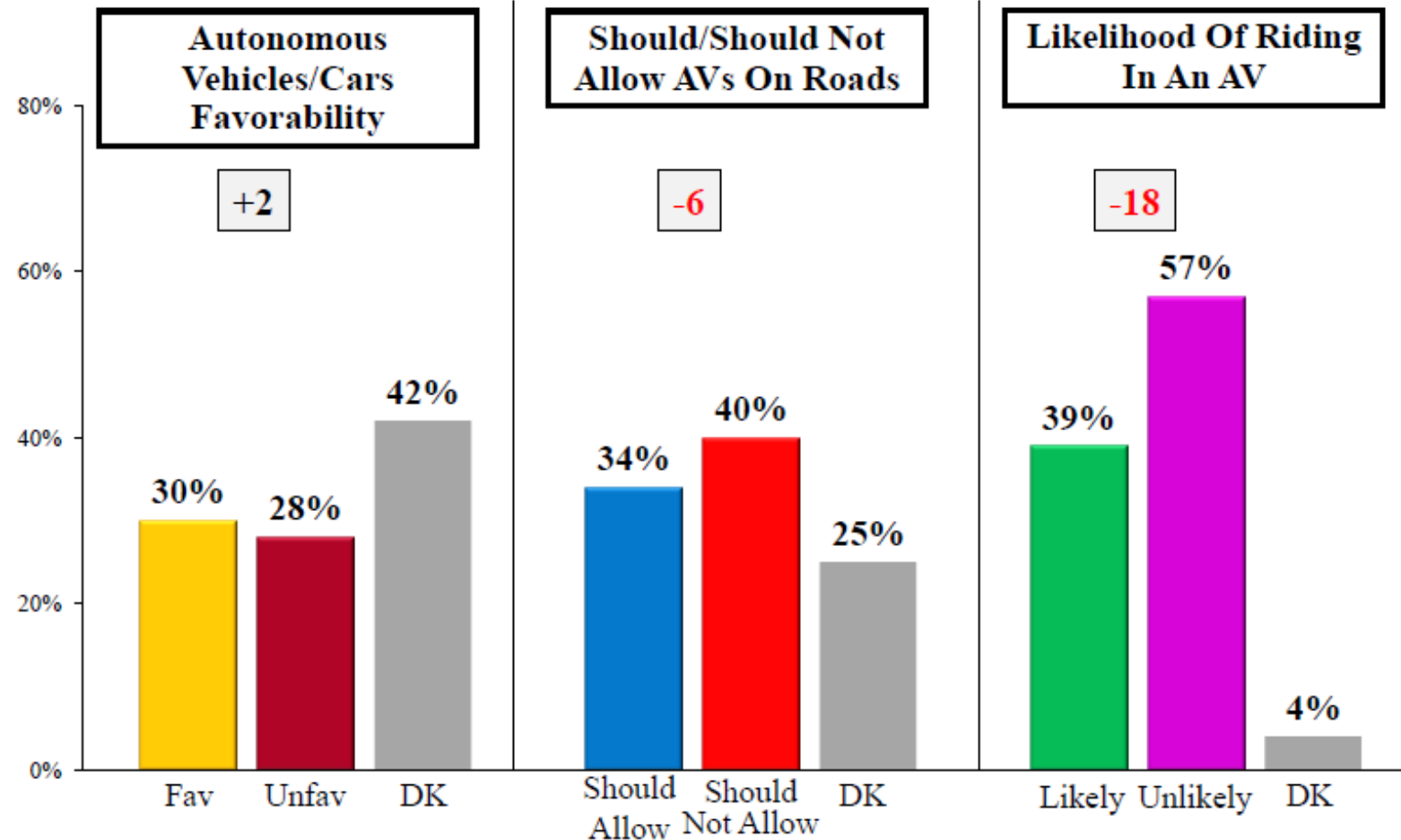
- ❖ Commission on AV Testing and Safety
- ❖ Self Driving Cars: The Impact on People with Disabilities
- ❖ Online Policy Dialogue with Department of Labor's Office of Employment and Disability Policy
- ❖ Self-Driving Vehicles: New Technologies and the Potential for Energy Savings in the Commercial Vehicle Sector (this month)
- ❖ AVs and Future of Labor Study (pending)

The Commission

CONCERN FOR PUBLIC ACCEPTANCE

Most Americans Lack Good Feelings About AVs

AMONG ADULTS OVERALL



THE COMMISSION



Major General, USAF (ret.) Mark Rosenker,
Chairman

- Former Chairman of the National Transportation Safety Board



Admiral, USN (ret.) Dennis Blair

- Former Director of National Intelligence and Commander In Chief, U.S. Pacific Command



Paul Brubaker

- President and Chief Executive Officer, Alliance for Transportation Innovation



Robert Lange

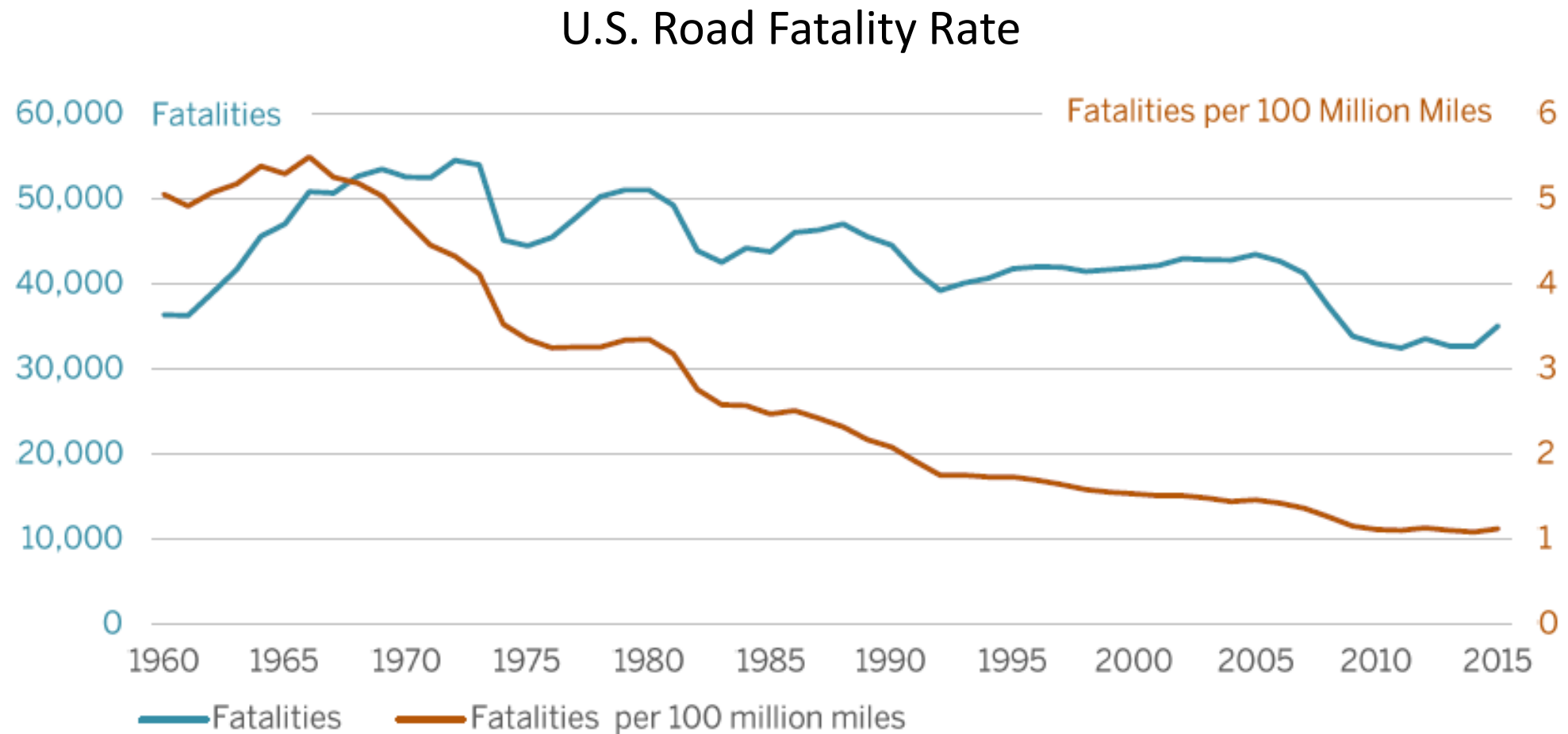
- Principal and Corporate Vice President, Exponent
- Former Executive Director, Product Safety, General Motors



Cuneyt Oge

- President, SAE International

SAFETY IMPROVEMENT HAS PLATEAUED



Source: U.S. Department of Transportation

TWO MAJOR SOURCES OF RISK

Consumer Concern

- ❖ Early accidents may dominate coverage and public opinion
- ❖ Need for transparency to build consumer confidence and align expectations

Regulatory Challenges

- ❖ Misregulation AND underregulation
- ❖ Slow speed and complexity may impede progress

These issues are intertwined; addressing regulatory challenges in a transparent fashion abets consumer acceptance

ADDRESSING “CONSUMER CONCERN” RISK

- ❖ Create and commit to safety benchmarks for AV performance
- ❖ Establish safety milestones to track the technology road map
- ❖ Safety is at a premium during AV testing — utilize redundant safety measures
- ❖ AV providers should ensure that users and regulators are informed of capabilities and limitations

ADDRESSING REGULATORY RISK

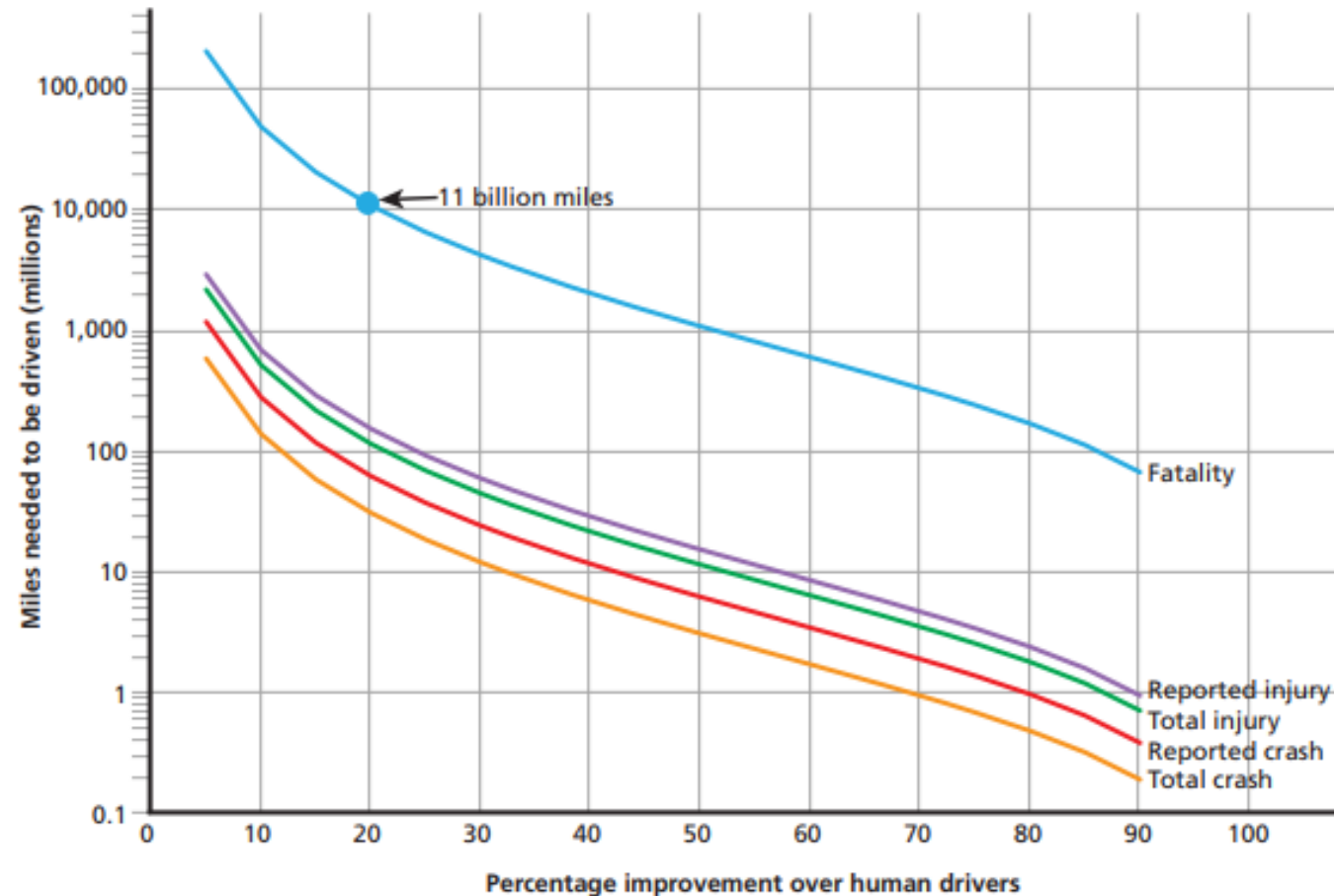
- ❖ AV providers are encouraged to form a data sharing consortium to accelerate safety experience and work with regulators
- ❖ Significant benefit of the consortium results from formulation of objective, practical, quantitative metrics for measuring AV safety
- ❖ We expect consortium to be driven by industry and result in consensus-driven AV regulations which are flexible and rest on a modern foundation reflecting software-driven nature of automation

A COMMENT ON ROAD TESTING



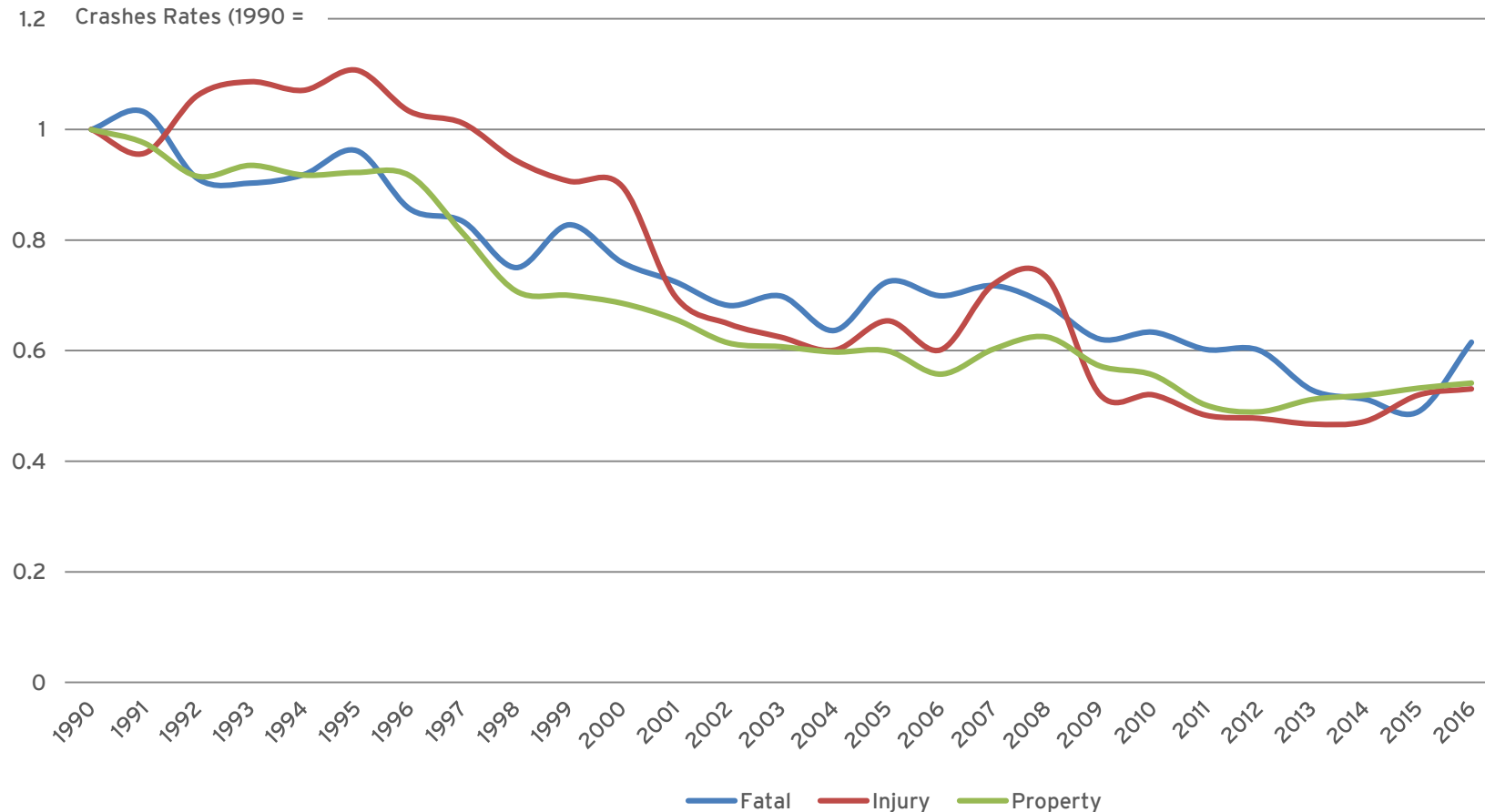
RAND: BILLIONS OF MILES TO TEST AV

Figure 4. Miles Needed to Demonstrate with 95% Confidence and 80% Power that the Autonomous Vehicle Failure Rate Is Lower than the Human Driver Failure Rate



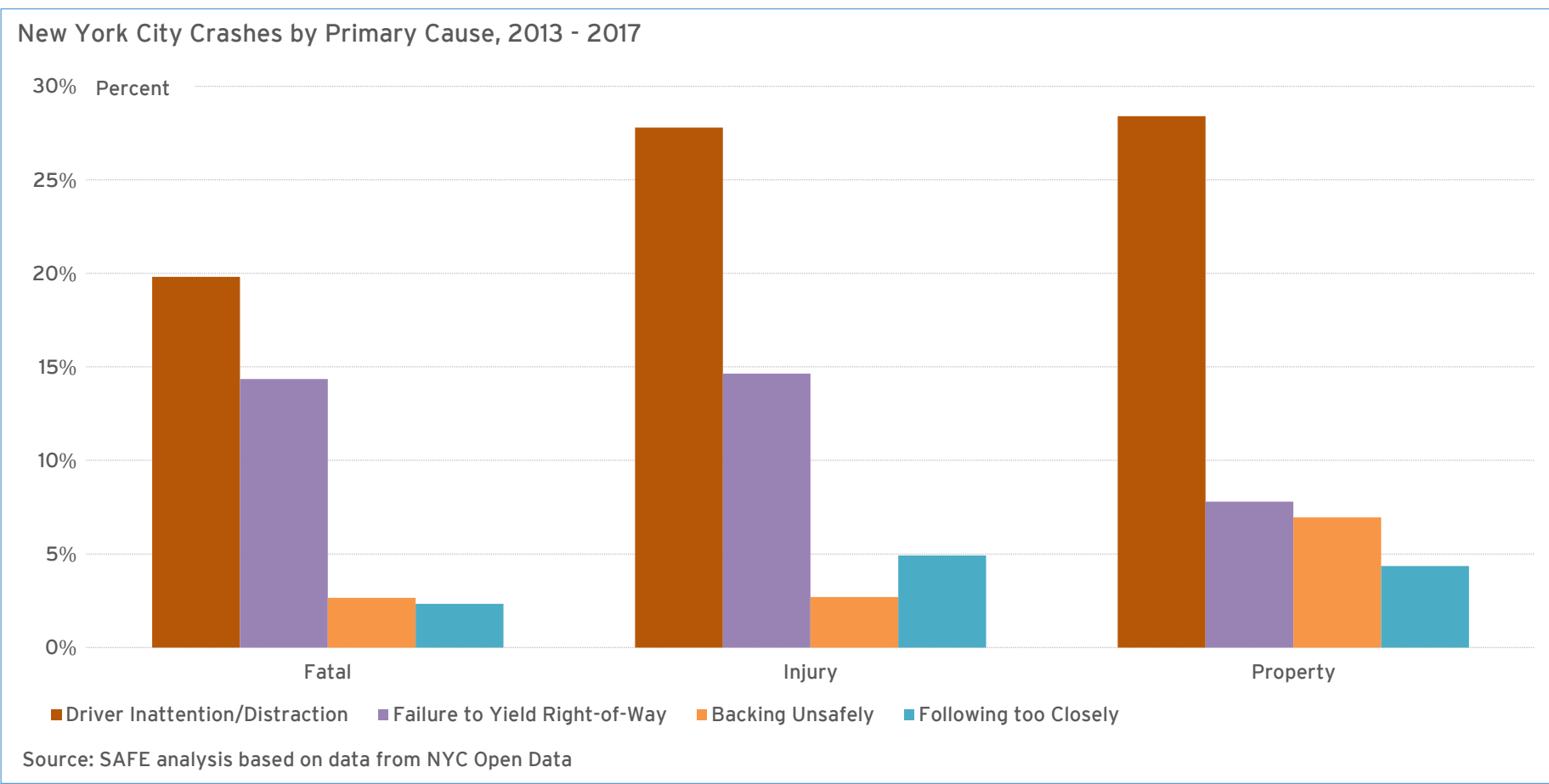
SAFE: CRASHES ARE CORRELATED

Iowa Crashes by Damage Type, 1990-2016



Source: SAFE analysis based on data from Iowa DOT

SAFE: CRASHES RESULT FROM COMMON CAUSES



Shining a path forward... any questions?

