WHO IS SAFE?
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

Note: Dedicated CNG, bifuel, and flex-fuel vehicle models were not included in this analysis.
Source: SAFE estimates based on interviews and public data
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
Most Americans Lack Good Feelings About AVs

Among Adults Overall

- Favorability of Autonomous Vehicles/Cars: 30% Favorable, 28% Unfavorable, 42% Don’t Know
- Should/Should Not Allow AVs On Roads: 34% Should Allow, 40% Should Not Allow, 25% Don’t Know
- Likelihood Of Riding In An AV: 39% Likely, 57% Unlikely, 4% Don’t Know
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

U.S. Road Fatality Rate

Source: U.S. Department of Transportation
AV TECHNOLOGY NEARS DEPLOYMENT

TWO MAJOR SOURCES OF RISK

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

- 11 billion miles
- Fatality
- Reported injury
- Total injury
- Reported crash
- Total crash
SAFE: CRASHES ARE CORRELATED

Iowa Crashes by Damage Type, 1990-2016

Crashes Rates (1990 = 1)

Source: SAFE analysis based on data from Iowa DOT
SAFE: CRASHES RESULT FROM COMMON CAUSES

New York City Crashes by Primary Cause, 2013 - 2017

- Driver Inattention/Distraction
- Failure to Yield Right-of-Way
- Backing Unsafely
- Following too Closely

Source: SAFE analysis based on data from NYC Open Data
Shining a path forward... any questions?