THE EVOLUTION OF TRAFFIC SAFETY

America’s Love Affair with the Car

“I had the carburetor cleaned and checked with her line blown out she’s hummin’ like a turbojet
Prepped her up in the backyard on concrete blocks for a new clutch plate and a new set of shocks
Took her down to the carwash check the plugs and points
I’m goin’ out tonight I’m gonna rock that joint”

Bruce Springsteen
Open All Night
Nebraska (1982)

1771 - Nicolas-Joseph Cugnot

Believed to be the first Person to Crash a Car
1865 - UK 'Locomotive Act'  

**The First Traffic Law**
- Set a speed limit of 2 miles per hour in towns
  4 miles per hour out of town, by requiring a man
  with a red flag to walk 60 yds. ahead of qualifying powered vehicles.
- The distance ahead of the pedestrian crew
  member was reduced to 20 yds. in 1878
- Vehicles were required to stop on the sight of a horse.
- The speed limit being effectively redundant as
  vehicle speeds could not exceed the speed at
  which a person could walk.

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1865 – Mary Ward

The First Motor Vehicle Fatality 8/31/1869

Henry H. Bliss
First American Killed by an Automobile 9/14/1899

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1895 – John Henry Knight

- 10/17/1895

- Knight was Charged by Information of the
  Offense of “Using a Locomotive without a License”

- He is Considered the First Traffic Offender
1905 – The American Automobile Association
Formed to Help Motorists Avoid Speed Traps

One year earlier law had been adopted to impose fines on speeders
The law also required drivers to have a driver's license and to have their vehicles registered

1931 – Scoggin v. State, 38 S.W.2d 592

- The Texas Court of Criminal Appeals shoots down legislative efforts to hinder the enforcement of traffic laws against speeding violators

“'No officer shall have authority to make any arrests for violation of the laws of this State relating to the speed of motor vehicles unless he is at the time of such arrest wearing a uniform and badge clearly distinguishing him from ordinary civilians or private citizens, and shall have no authority to make any such arrests by designedly remaining in hiding or lying in wait unobserved in order to trap those suspected of violating the speed laws in reference to motor vehicles.'”

1930s – Dr. Claire L. Straith and Dr. C.J. Strickland

- Pioneers of Automobile Safety
- Described Cranial and Facial Injuries Caused by Car Wrecks
- Advocated for Padded Dashboards and Seatbelts
1934 – General Motors performs first crash test

1940 – The U.S. Government adopts first equipment regulation on automobiles

- Guess the regulation.

- Hint: This piece of equipment would remain virtually unchanged for 40 years!

1942 - Hugh De Haven publishes the classic Mechanical analysis of survival in falls from heights of fifty to one hundred and fifty feet

- The human body can tolerate and expend a force of two hundred times the force of gravity for brief intervals during which the force acts in transverse relation to the long axis of the body. It is reasonable to assume that structural provisions to reduce impact and distribute pressure can enhance survival and modify injury within wide limits in aircraft and automobile accidents.
1948 – The Tucker Sedan is released

The First Automobile to have a Padded Dashboard

1949 – The Saab 92 is released

The First Car with a Safety Cage

1956 – The Ford Motor Company unsuccessfully markets the Lifeguard Safety Package

- Advances Seatbelts and Roll Cages
- Volvo’s Nils Bohlin Patents the 3 point lap and shoulder belt

1959 - Insurance Institute for Highway Safety (IIHS) is created

1964 - Volvo developed the first rear-facing child seat

Ellen Louise Turner
Born 8/13/10
1965 – The book Unsafe at Any Speed: The Designed-In Dangers of the American Automobile by Ralph Nader is published

1966 – U.S. Congress mandates seat belts in automobiles

1966 – The U.S. Department of Transportation (DOT) is created
1970 – The National Highway Safety Administration (NHTSA) is created

1974 - Mini Clubman Experimental Safety Vehicle
- Advent of the “Pedestrian Friendly” Front End

1975 – The National Transportation Safety Board (NTSB) becomes separate from DOT
1978 – Volvo introduces its first booster seat

1979 - NHTSA began crash-testing popular cars

1984 - New York State passed the first US law requiring seat belt use in passenger cars
1986 - Central 3rd brake light mandated in North America.

April 1989 – Passive restraints required for drivers of automobiles

1998 – Dual airbags required in automobiles
1995 - IIHS begins frontal offset crash tests

2003 - IIHS begins conducting side impact crash tests.

2004 - NHTSA released new tests designed to test the rollover risk of new cars and SUV.
II. Risk compensation

Risk compensation is an effect whereby individual people may tend to adjust their behavior in response to perceived changes in risk. It is seen as self-evident that individuals will tend to behave in a more cautious manner if their perception of risk or danger increases. Another way of stating this is that individuals will behave less cautiously in situations where they feel "safer" or more protected.

III. Safety Trends
Thank You for Your Attention

INSURANCE INSTITUTE FOR HIGHWAY SAFETY