



Taking Sides On Auto Frequency

Discussion Document

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The views expressed in this presentation are solely those of the author, and do not necessarily reflect the views of Allstate Insurance Company or any of its affiliates, subsidiaries, or employees.

Last November's Pre-Work

What is your position on the following...

- Is auto frequency about to:
 - ▶ Increase?
 - ▶ Level off?
 - ▶ Decrease?

- Why?

Today's Pop Quiz

- True or False? Auto frequency will increase following the current economic downturn.
- True or False? More drivers today impose their high degree of accepted risk-taking on others.
- True or False? Automated enforcement is increasing in prevalence to generate revenue for cities/states that are struggling financially.
- True or False? By definition, advances in automotive safety improve claim frequency.
- Multiple choice: “Don’t drive under the influence of _____.”
 - ▶ A) Alcohol
 - ▶ B) Hygiene
 - ▶ C) Fast food
 - ▶ D) Ignorance
 - ▶ E) All of the above

The Importance Of Context

- What's this?



The Importance Of Context

- What's this?



- How tall is it?
- Backyard garden or field?

The Importance Of Context

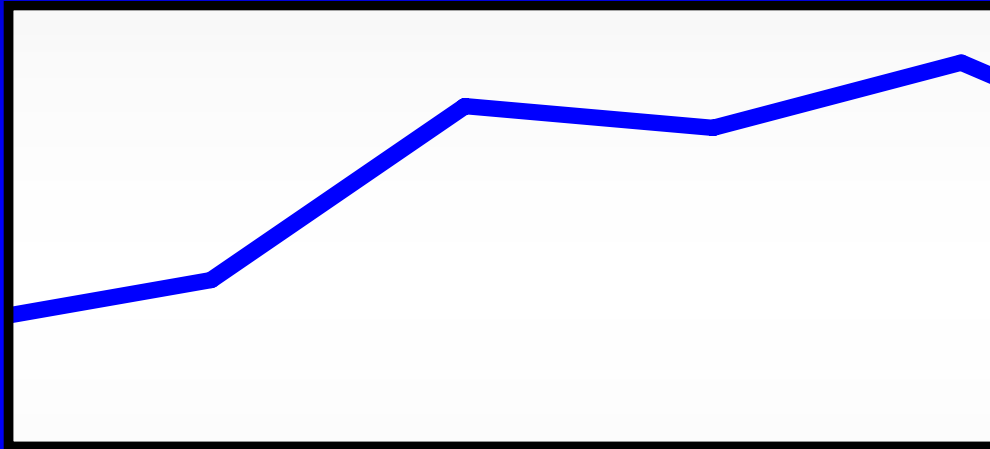
- What's this? How tall is it? Garden or Field?



We can't tell unless we "zoom out"...
Context provides a better answer

The Importance Of Context

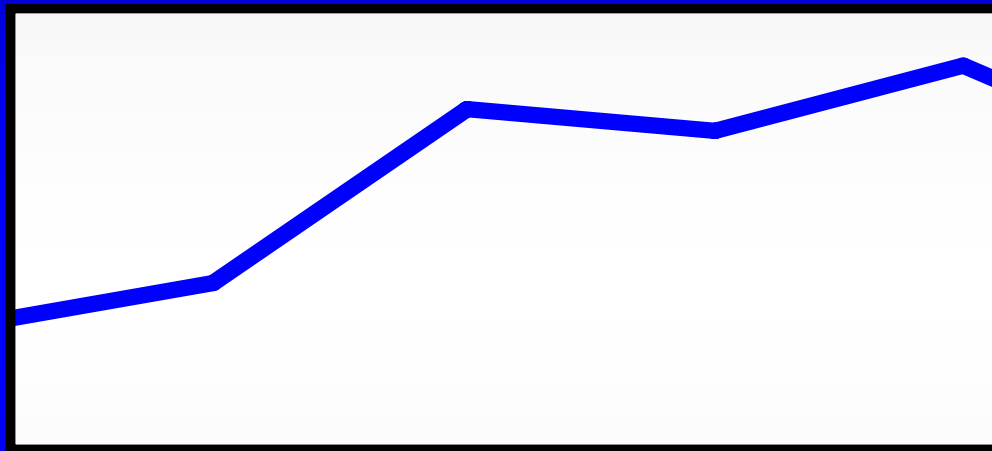
- What trend do you see?



- How do you know?

The Importance Of Context

- What if we “zoom out” and provide more context?



Increasing trend?...

...Or, variability around a generally declining trend?



Past Influences On Frequency

Context: Consider drivers of claim frequency that create variability over time

- ▶ **External vs. Internal**
- ▶ **Short-term vs. Long-term**
- ▶ **Positive vs. Negative**

Past Influences On Frequency (Sample)

1970's	1980's	1990's	2000's
<p><u>Recession</u></p> <ul style="list-style-type: none"> ~8%-10% drop in PD and Collision Frequency 	<p><u>Anti-Lock Brakes</u></p> <ul style="list-style-type: none"> NHTSA study stated ABS "appears to be beneficial in preventing pedestrian crashes, rollovers, run-off-road crashes and frontal crashes with another moving vehicle." 	<p><u>National Speed Limit</u></p> <ul style="list-style-type: none"> Repealed 1974 national speed limit 	<p><u>Technology</u></p> <ul style="list-style-type: none"> Cell Phones Red Light/Speed Cameras Electronic Stability Control Event Data Recorders (Black Box)
<p><u>Energy Crisis</u></p> <ul style="list-style-type: none"> PD & Collision frequency drops sharply, then rebounds after embargo ended 			
<p><u>National Speed Limit</u></p> <ul style="list-style-type: none"> 1974 - Congress passed speed limit @ 55mph 			
			<p><u>Legislation</u></p> <ul style="list-style-type: none"> Cell Phone Laws Automated Enforcement Laws Graduated Drivers License Laws

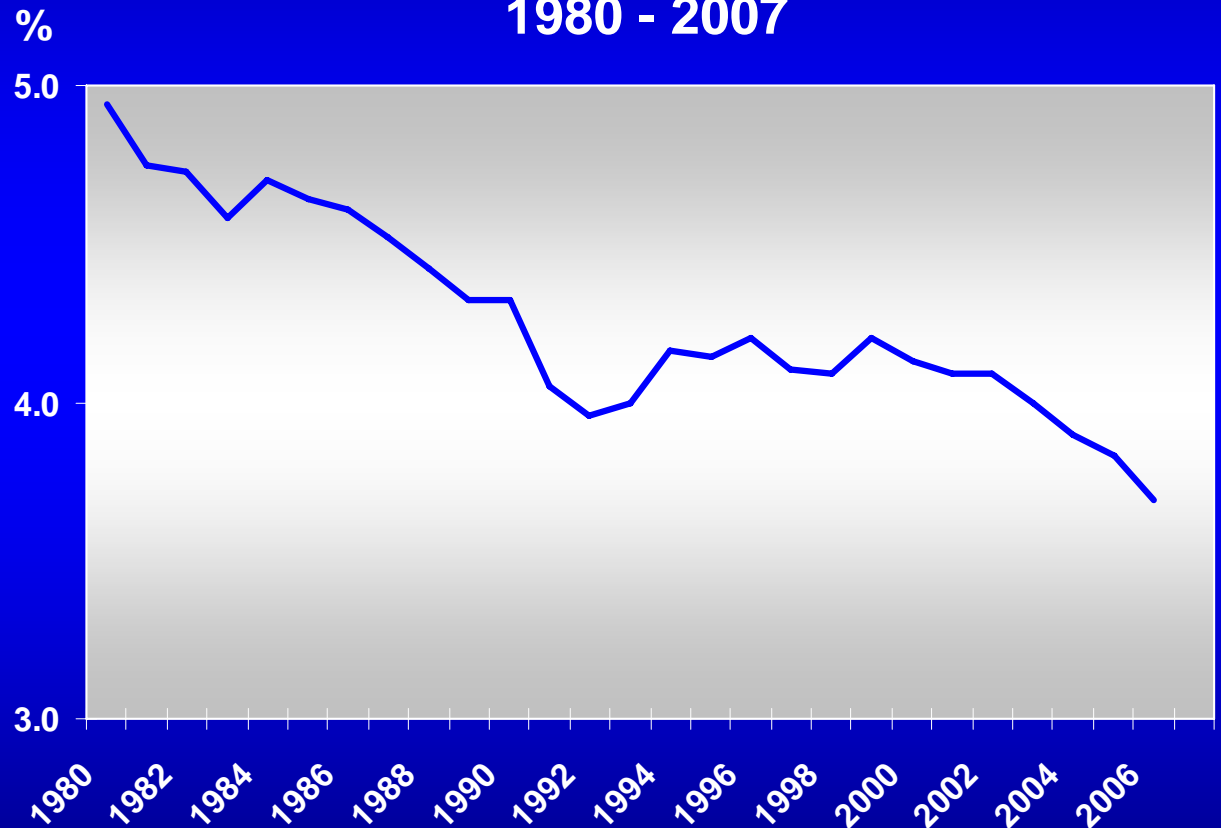
Source: Time- The profits of recession, IIHS- Insurance Institute for Highway Safety, Anti-Lock Brakes MSN Auto, Fox News

Past Influences On Frequency

External factors contributing to overall frequency decline over time:

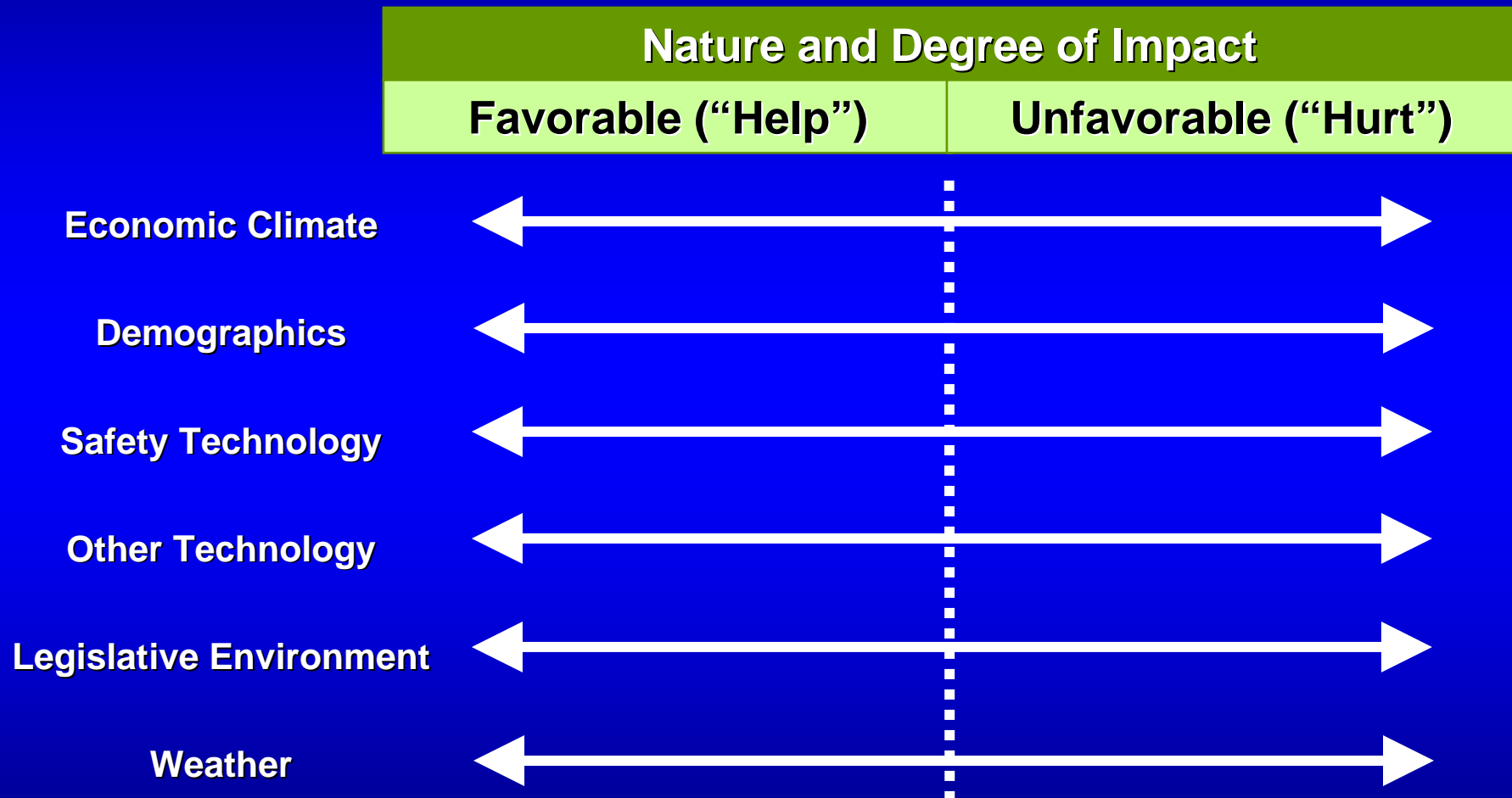
- Economy
- Demographics
- Legislation
- Technology
- Driving behavior
- Weather
- Other

**Auto Industry PD Frequency
1980 - 2007**



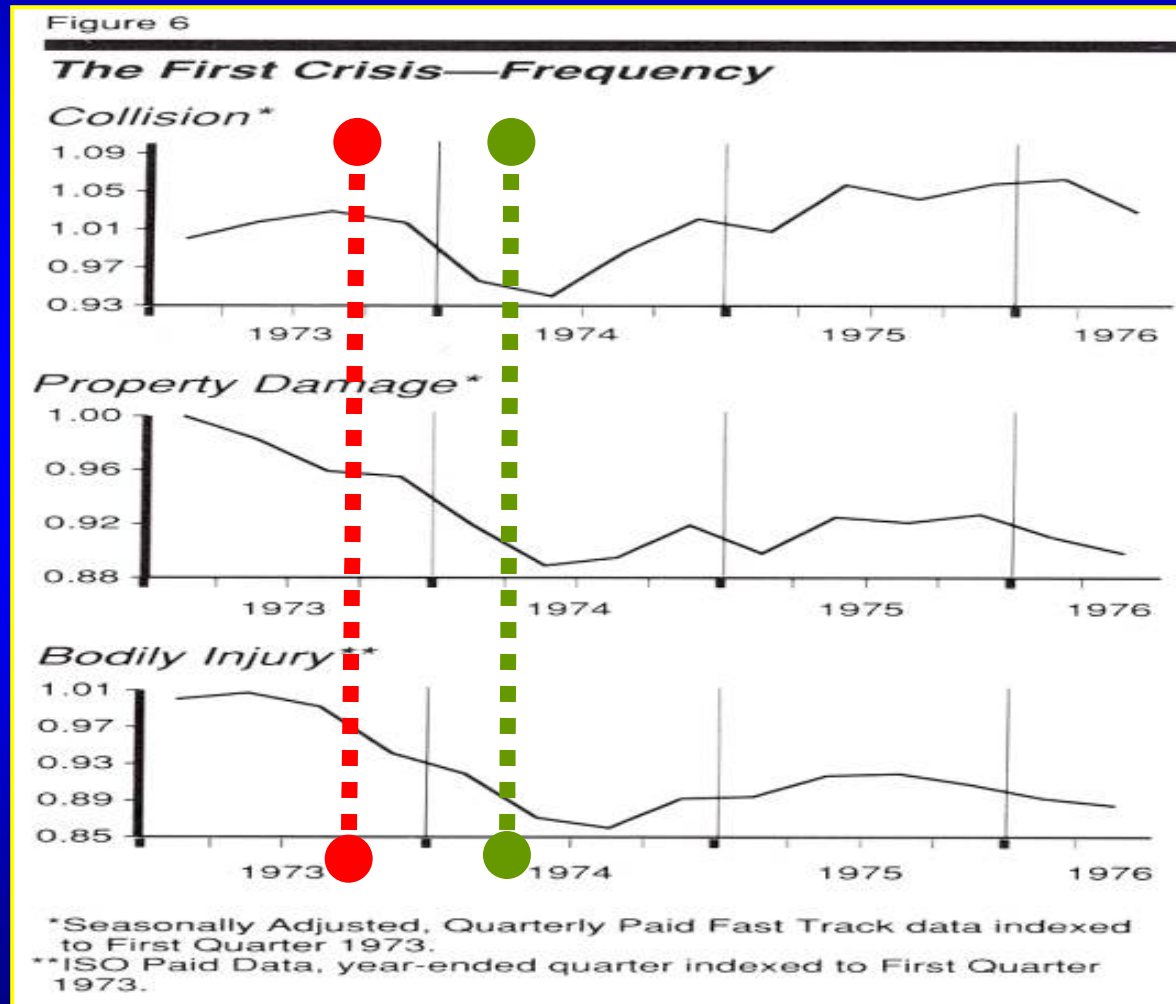
Source: IRC

Example: External Frequency Drivers



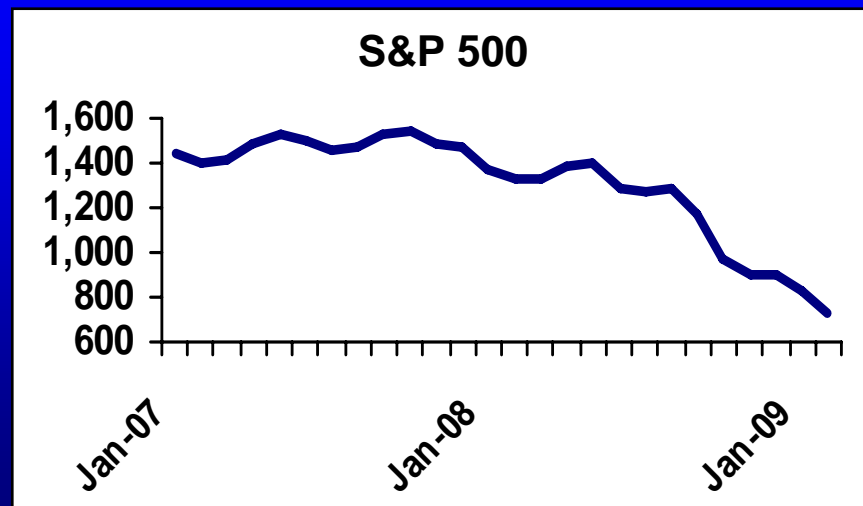
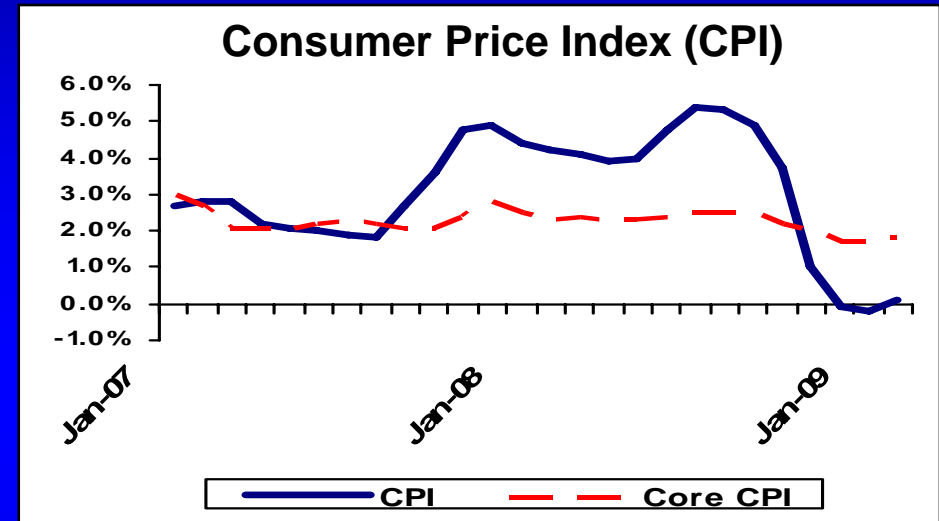
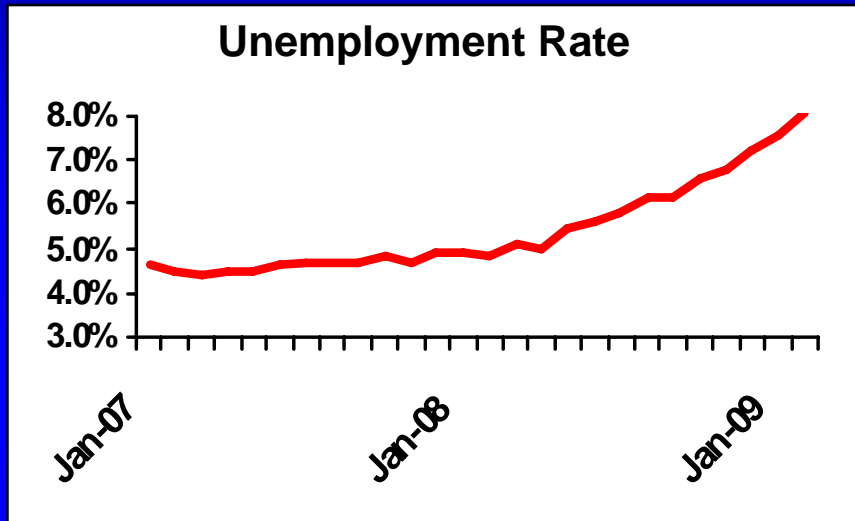
Economic Climate: Help or Hurt?

- Can we learn from history?

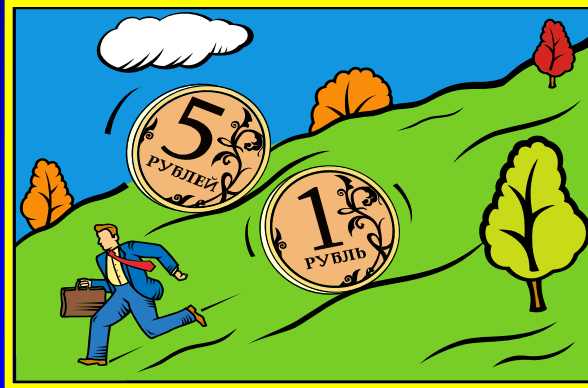


Economic Climate: Help or Hurt?

- What might result from today's economic situation?

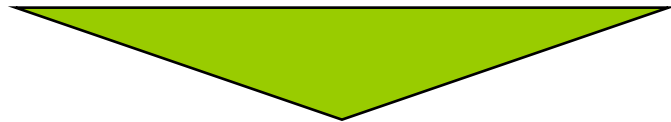


Economic Climate: Help or Hurt?



Favorable (“Help”)

- Increasing unemployment
- Generally increasing CPI, PPI
- Fewer new car sales



- Fewer miles driven (short-term)
- Potential change in claiming behavior (collision)
- Greater familiarity with existing vehicles

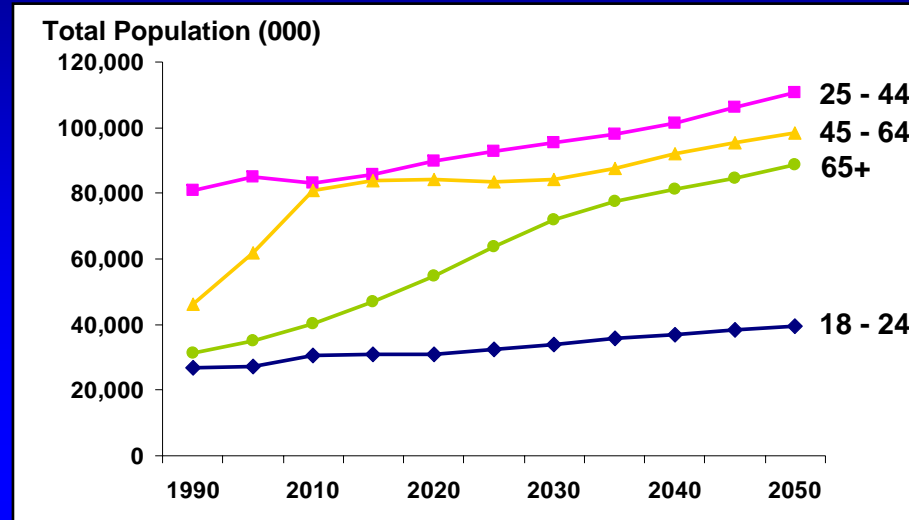
Unfavorable (“Hurt”)

- Increased speeds (fewer cars, less congestion)
- Increased incidence of theft
- Less spend on auto maintenance
- More stranded vehicles
- Less expensive vehicles = fewer safety features
- Bounce-back effect
- Potential change in claiming behavior (fraud, medical)

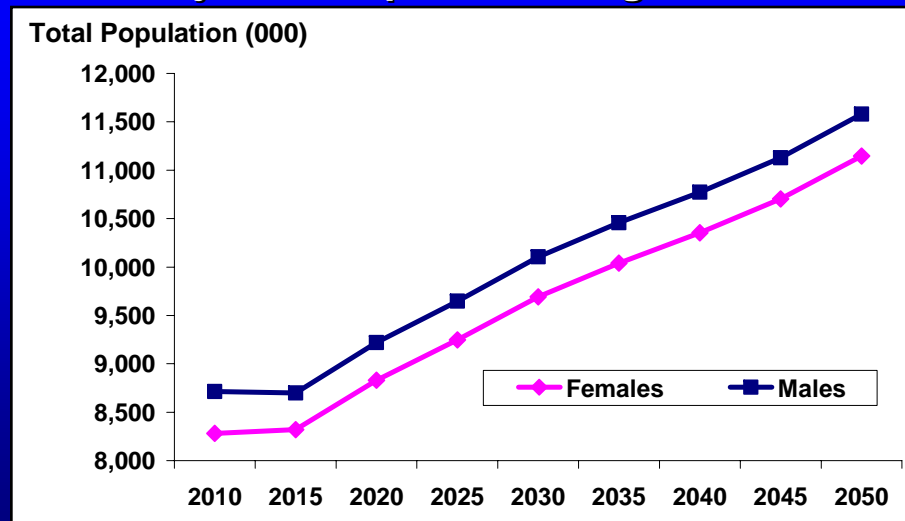
- Smaller cars = higher BI
- Severity increases as petroleum costs increase

Demographics: Help or Hurt?

Projected Population



Projected Population - Ages 14-17



Source: US Census Bureau, U.S. Department of Homeland Security

Demographics: Help or Hurt?



Favorable (“Help”)

- Boomers as high % of driving population (safest driving years)
- Boomers more restrictive of teen drivers

Unfavorable (“Hurt”)

- Future aging of population
- Shift in mix of safest drivers as % of total
- Urbanization
- Gender trends

Safety Technology: Help or Hurt?

Auto Safety Innovations, Driver Assistance Technologies

Today's vehicles have more safety features than ever. ▼

Side Airbags and Curtains
help protect occupants
in side crashes

Dynamic Head Restraints
help reduce potential
head/neck injuries

Forward Looking Radar
detects vehicles ahead

Brake Assist
enhances
braking ability



Safety Belt Load Limiter
reduces possibility of belts
causing injury

Electronic Stability Control
helps drivers maintain vehicle
control

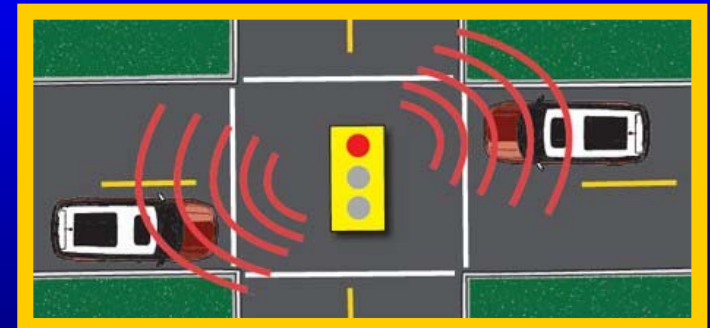
Traction Control
can automatically stop
a spinning wheel

Anti-Lock Brakes
allow drivers to steer and brake
simultaneously

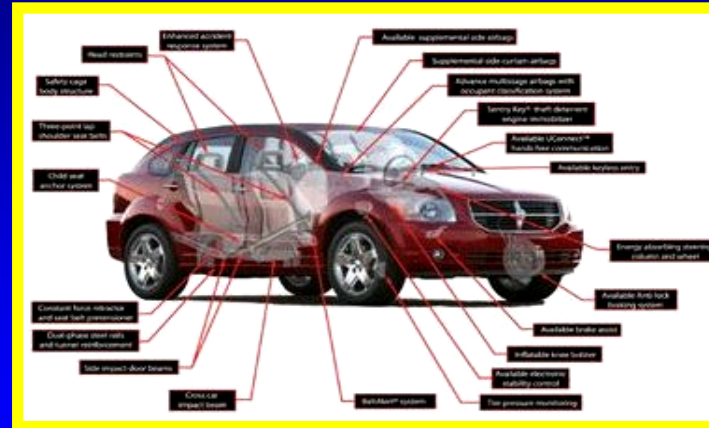
Greater Visibility



Smart Intersections



Safety Technology: Help or Hurt?



Favorable (“Help”)

- Increased Protection:
 - Airbags/Curtains
 - Head restraints
 - Seatbelts
- Increased Prevention:
 - Anti-lock brakes
 - Blind spot reducers
 - Electronic stability control
 - Eye scan (Sleep alert)
 - Forward looking radar
 - Traction control
 - Vehicle Infrastructure Integration (VII)

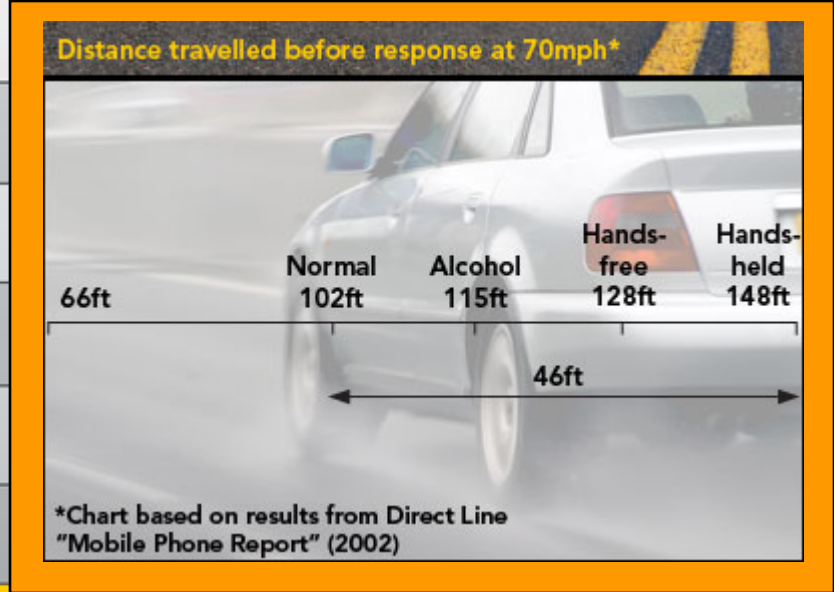
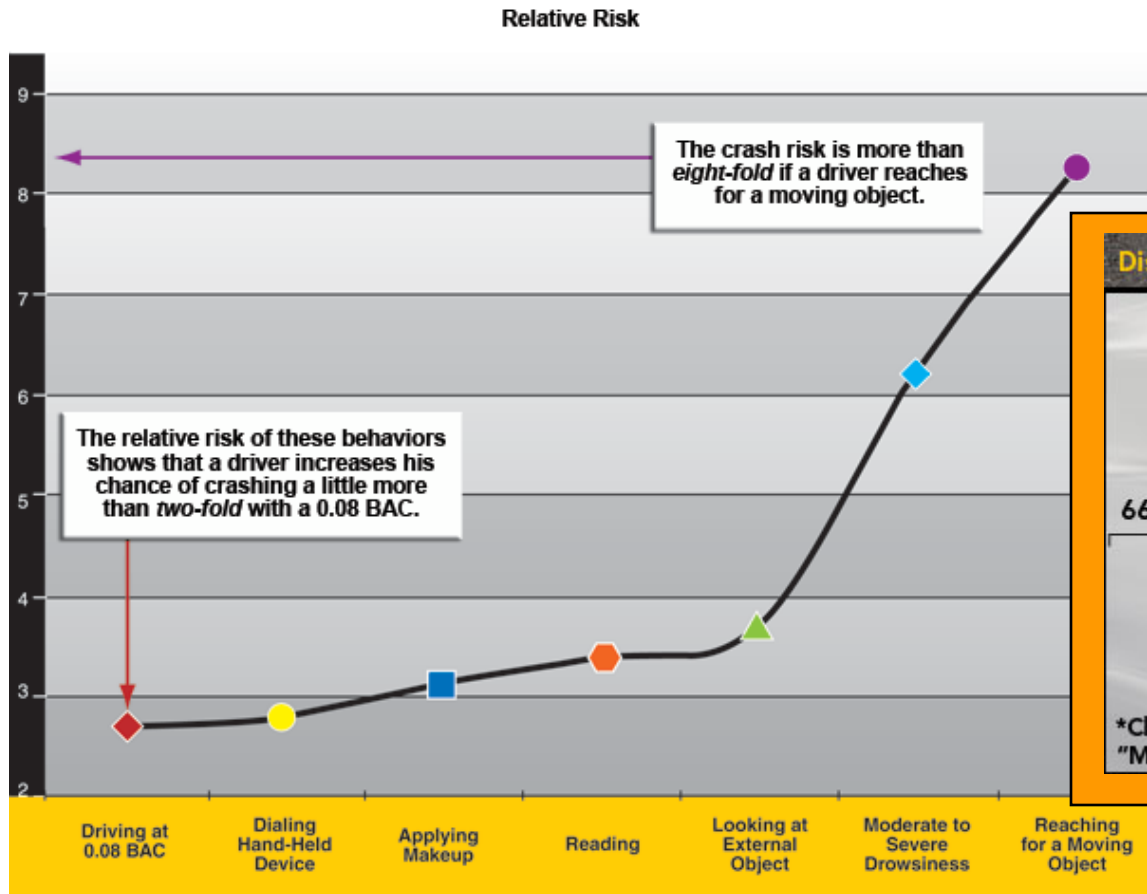
Unfavorable (“Hurt”)

- May give “permission” to drive less carefully
- Increased cost to repair

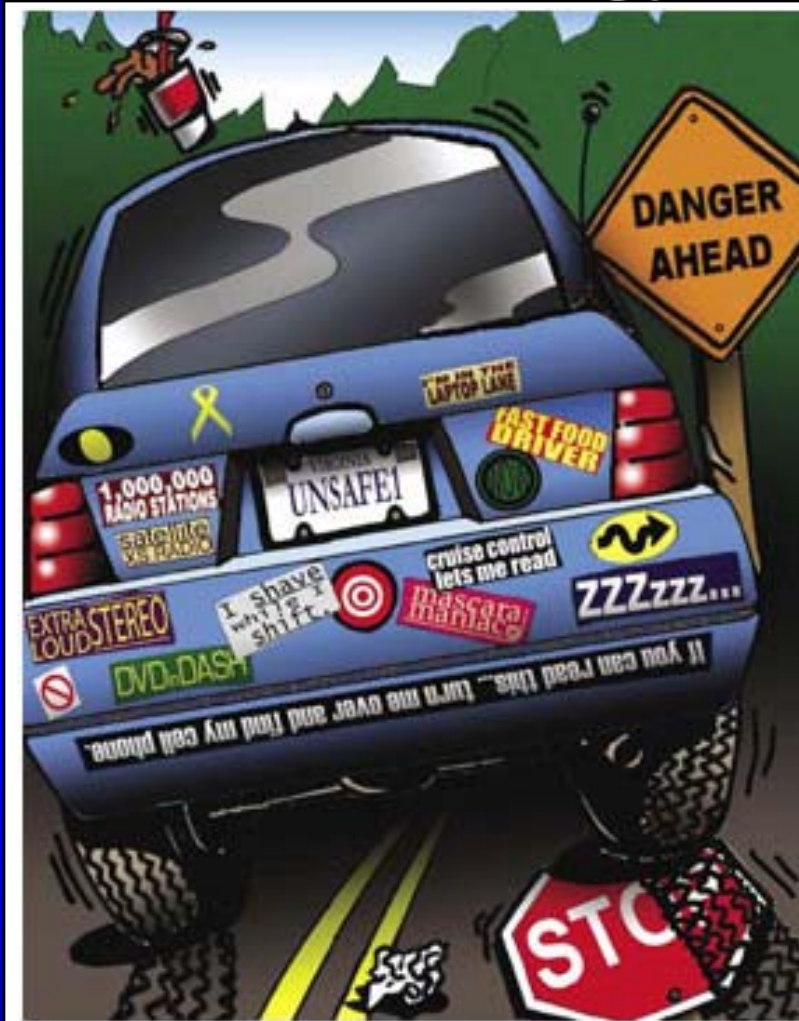
Other Technology & Activities: Help or Hurt?



Other Technology & Activities: Help or Hurt?

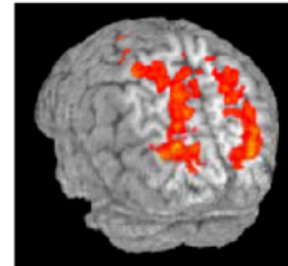


Other Technology & Activities: Help or Hurt?



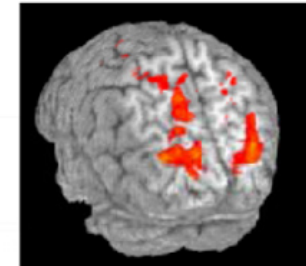
80 percent of all crashes and 65 percent of all near-crashes involved the driver looking away from the forward roadway, researchers found.

Driving Without Distractions



L

Driving While Gabbing



R



Other Technology & Activities: Help or Hurt?



Favorable (“Help”)

- **Increased Prevention:**
 - Alcohol detection linked to ignition
 - Brain training - Insight
 - Driving feedback - Telematics
 - Global Positioning Systems

Unfavorable (“Hurt”)

- **Increased distractions, even from “helpful” technology**
- **Multitasking**

Legislative Environment: Help or Hurt?

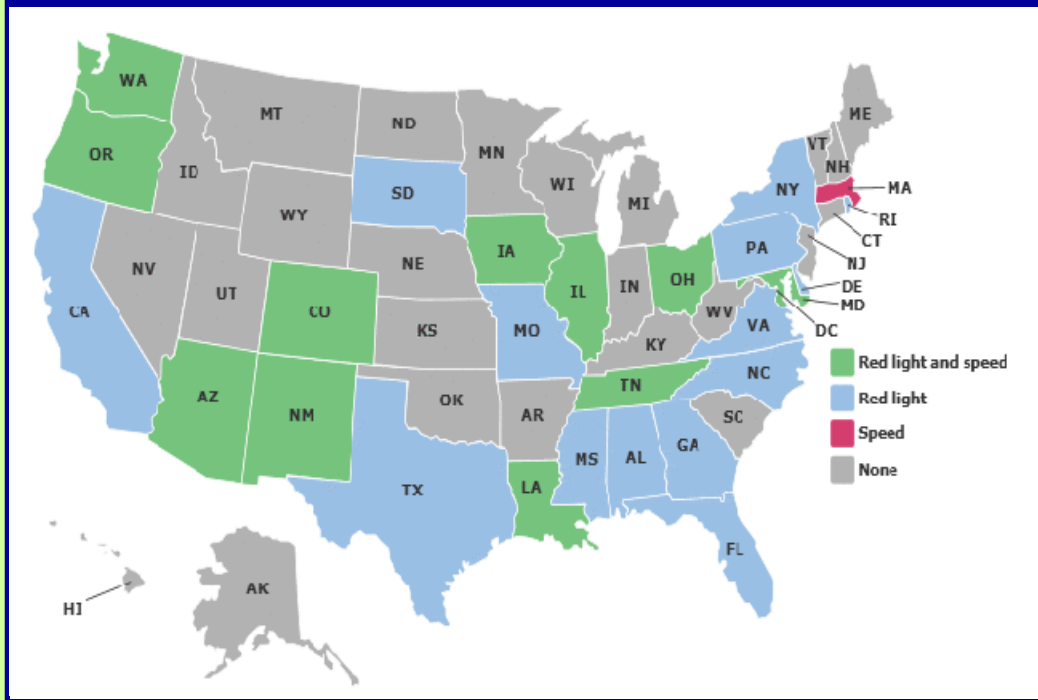
Cell Phone Laws

- Driving ban for hand-held cellular phones (6 states)
- Cell phone restrictions for novice drivers (17 states)
- Text messaging banned for all drivers (7 states)

Maximum Posted Speed Limits

- Since 1995 repeal of National Maximum Speed Limit, 32 states have raised limits to 70mph+ on some roads

Automated Enforcement Laws



Licensing Restriction/Provisions

- Graduated drivers licensing
 - ▶ Some or all elements enacted in most states
- Renewal provisions for older drivers (26 states & D.C.)

Legislative Environment: Help or Hurt?



Favorable (“Help”)

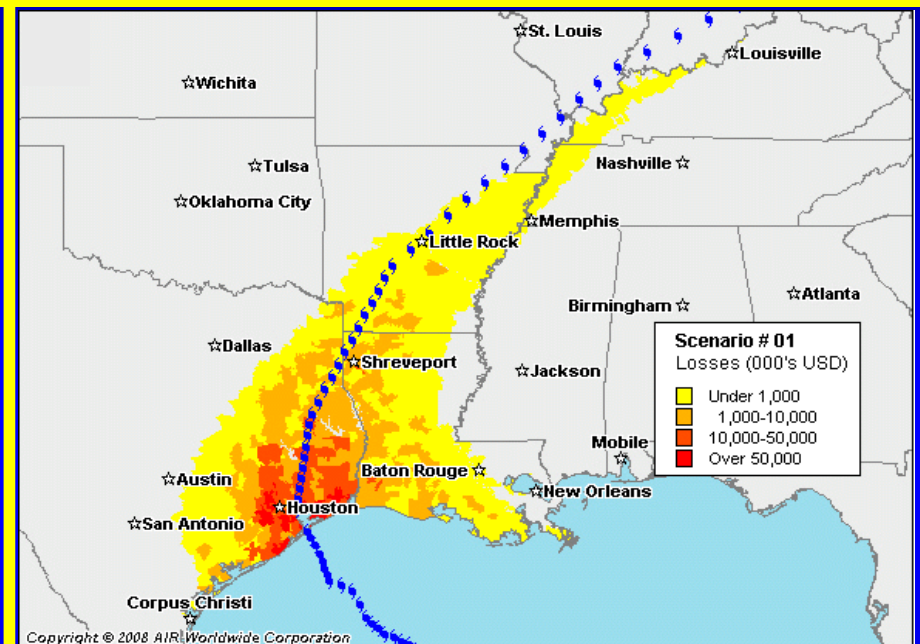
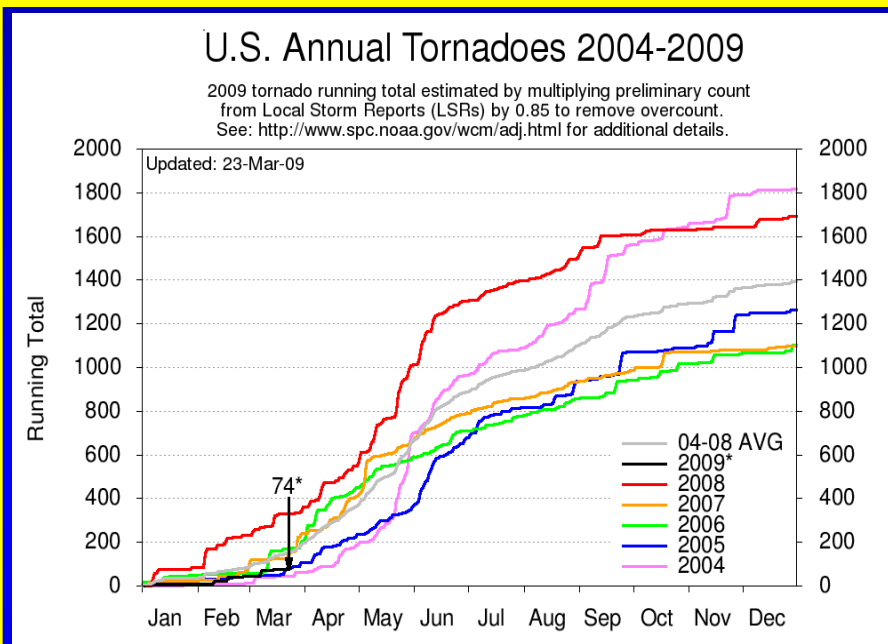
- **Increased Protection:**
 - Bumper safety
 - Mandatory seatbelt use
- **Increased Prevention:**
 - Graduated drivers licensing
 - Minimum drinking age
 - Automated enforcement laws
 - Licensing renewal provisions for older drivers
 - Cell phone/texting laws

Unfavorable (“Hurt”)

- Length of time to pass laws
- Hands Free laws inadequate
- 55mph national speed limit repealed
- Automated enforcement is passive, not active, in stopping dangerous driving behavior
- Red light cameras increase frequency of rear-end collisions

Weather: Help or Hurt?

■ Increasing frequency and severity of storms



- ▶ 54% more tornadoes in 2008 vs. 2007
- ▶ 30% more tornado activity vs. 3-year average

- ▶ “Ike showed no coastal favoritism when it trekked into Ohio...”
- ▶ “[Ohio] Vehicle owners filed... 9,200 claims, totaling \$22.7 million in damages.”

- Seven out of the top 20 most costly insurance losses of 2006 were hail related
- In 2007 alone, there were over 12,000 hail storms in the United States

Weather: Help or Hurt?



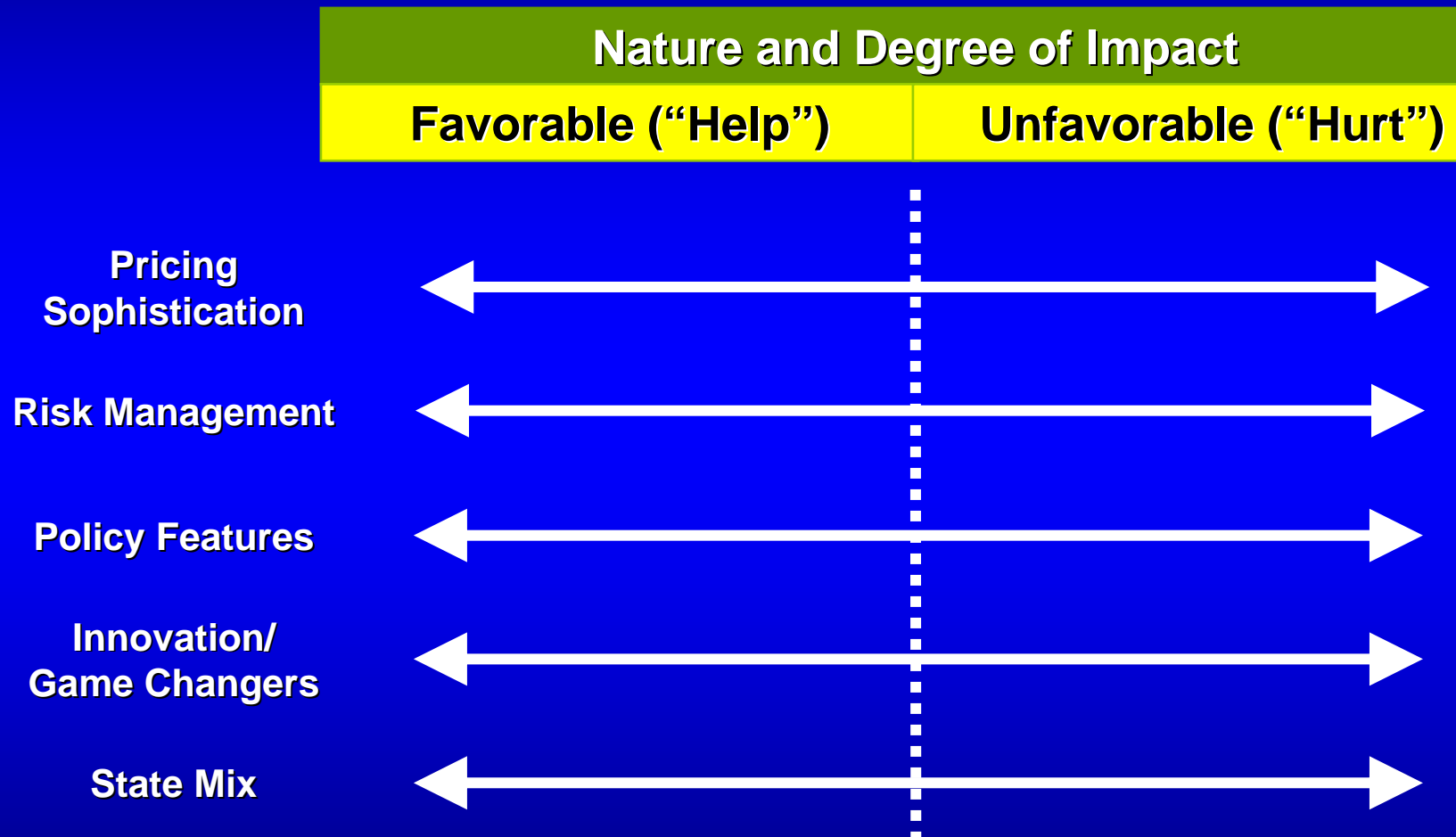
Favorable (“Help”)

- **Increased Prevention:**
 - Advanced warning systems
 - People may be more likely to stay indoors/off roads

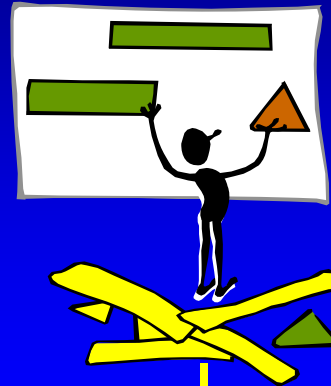
Unfavorable (“Hurt”)

- **More Prevalent:**
 - Warmer Ocean Temperatures
 - Stronger storms moving farther inland
 - Increased tornado activity

Another Example: Internal Frequency Drivers



Internal Drivers: Help or Hurt?



Favorable (“Help”)

- Pricing segmentation/
sophistication
- Underwriting guides
- Innovation:
 - Policy features
 - Claims processing

Unfavorable (“Hurt”)

- Pricing segmentation/
sophistication
- Underwriting guides
- Innovation:
 - Policy features
 - Claims processing

***Internal drivers that help us the most
can also hurt us the most***

Context: Bringing It All Together

- What's the net impact of internal, external, short-term, long-term, favorable and unfavorable frequency drivers?

Drivers	Help	Hurt
Economy	<ul style="list-style-type: none"> Miles driven Familiarity w/ car 	<ul style="list-style-type: none"> Increased speeds Less maintenance
Demographics	% middle-age driving population	Aging of population
Safety Technology	<ul style="list-style-type: none"> Protection Prevention 	Permission to drive less carefully
Other Technology	<ul style="list-style-type: none"> Driving skills Prevention 	<ul style="list-style-type: none"> Multi-tasking Distractions
Legislative Environment	<ul style="list-style-type: none"> Protection Prevention 	<ul style="list-style-type: none"> Time to pass laws Passive vs. active
Weather	Discourages road travel	Storm frequency and severity
Internal	<ul style="list-style-type: none"> Pricing Underwriting Policy features 	<ul style="list-style-type: none"> Pricing Underwriting Policy features



So What?

- **How might we apply contextual thinking to:**
 - ▶ **Improve product pricing?**
 - ▶ **Improve rate filings?**
 - ▶ **Improve interaction with key stakeholders?**
 - ▶ **Improve planning, analysis, and understanding of frequency trends?**
 - ▶ **Other?**

Today's Pop Quiz... Revisited

- True or False? Auto frequency will increase following the current economic downturn. **IT DEPENDS... ON THE CONTEXT**
- True or False? More drivers today impose their high degree of accepted risk-taking on others. **TRUE – MULTITASKING**
- True or False? Automated enforcement is increasing in prevalence to generate revenue for cities/states that are struggling financially. **IT DEPENDS... ON WHO YOU BELIEVE**
- True or False? By definition, advances in automotive safety improve claim frequency. **FALSE – THE PELTZMAN EFFECT**
- Multiple choice: “Don’t drive under the influence of _____.”
 - ▶ A) Alcohol – **COGNITIVE DISTRACTION**
 - ▶ B) Hygiene – **MANUAL & VISUAL DISTRACTIONS**
 - ▶ C) Fast food – **MANUAL DISTRACTION**
 - ▶ D) Ignorance – **MANUAL, VISUAL, & COGNITIVE DISTRACTIONS**
 - ▶ E) All of the above – **CORRECT ANSWER!!!**

Thank You!