



Emerging Cost Drivers in Auto Insurance

Federal Advisory Committee on Insurance
January 5, 2017

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A black and white portrait of Mark Twain, showing his head and shoulders. He has white, wavy hair and a prominent white mustache. He is looking slightly to the left of the camera with a serious expression. The background is dark and out of focus.

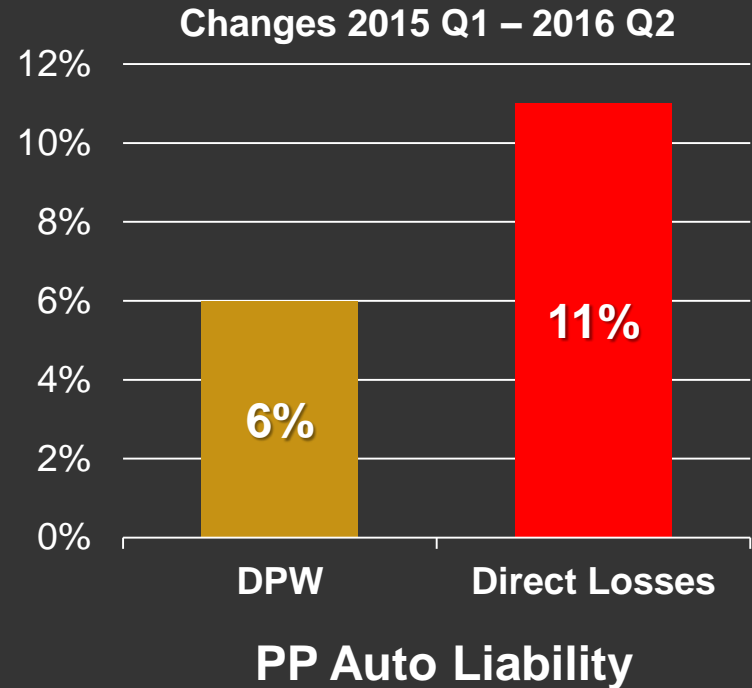
**“THE REPORTS OF MY DEATH HAVE BEEN
GREATLY EXAGGERATED.”**

MARK TWAIN

Perception vs. Reality

Perception: 70% of consumers think auto accidents are declining

Reality:



Multitude of Factors – Economy, Society and Technology

Strong correlations

- Traffic congestion
- Alcohol, speeding, distracted driving
- Miles driven/employment

Other frequency factors

- More older and younger drivers
- Weather/road conditions
- Use of marijuana and opioids

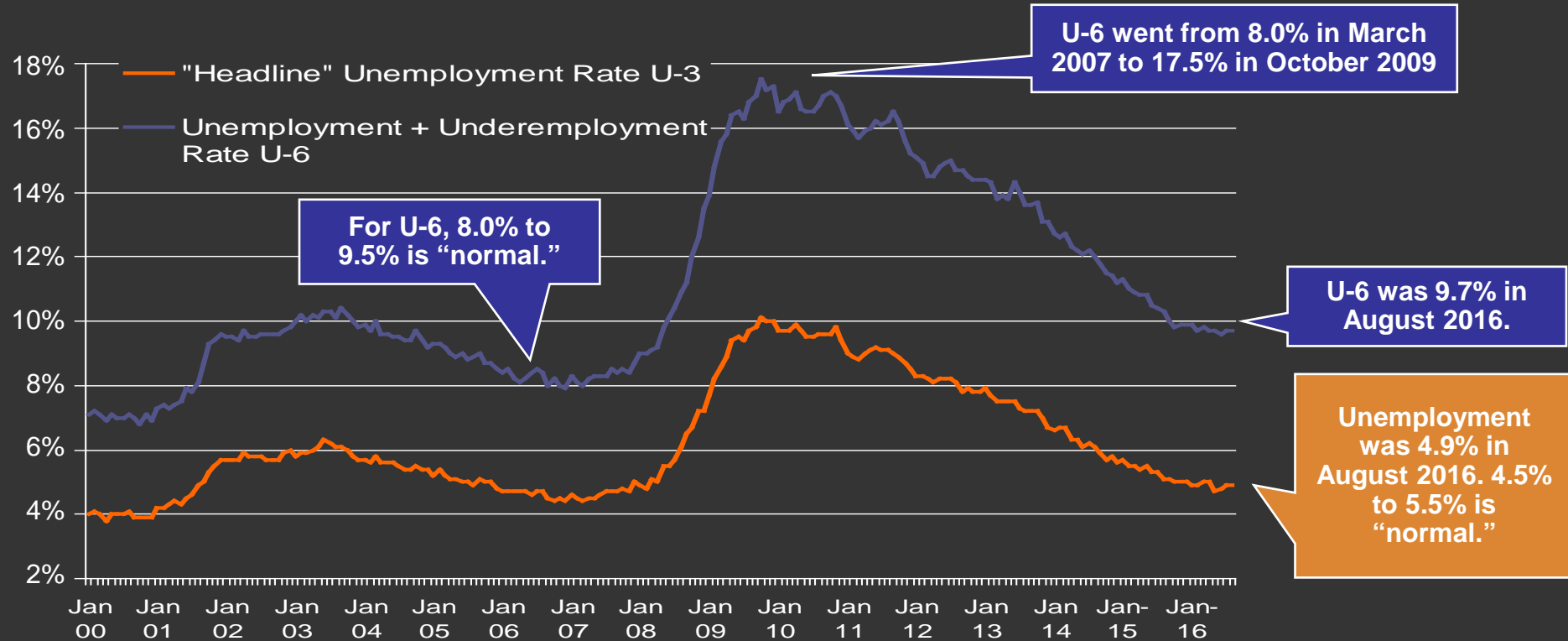
Other severity factors

- Vehicle technology
- Medical costs
- Speed limits

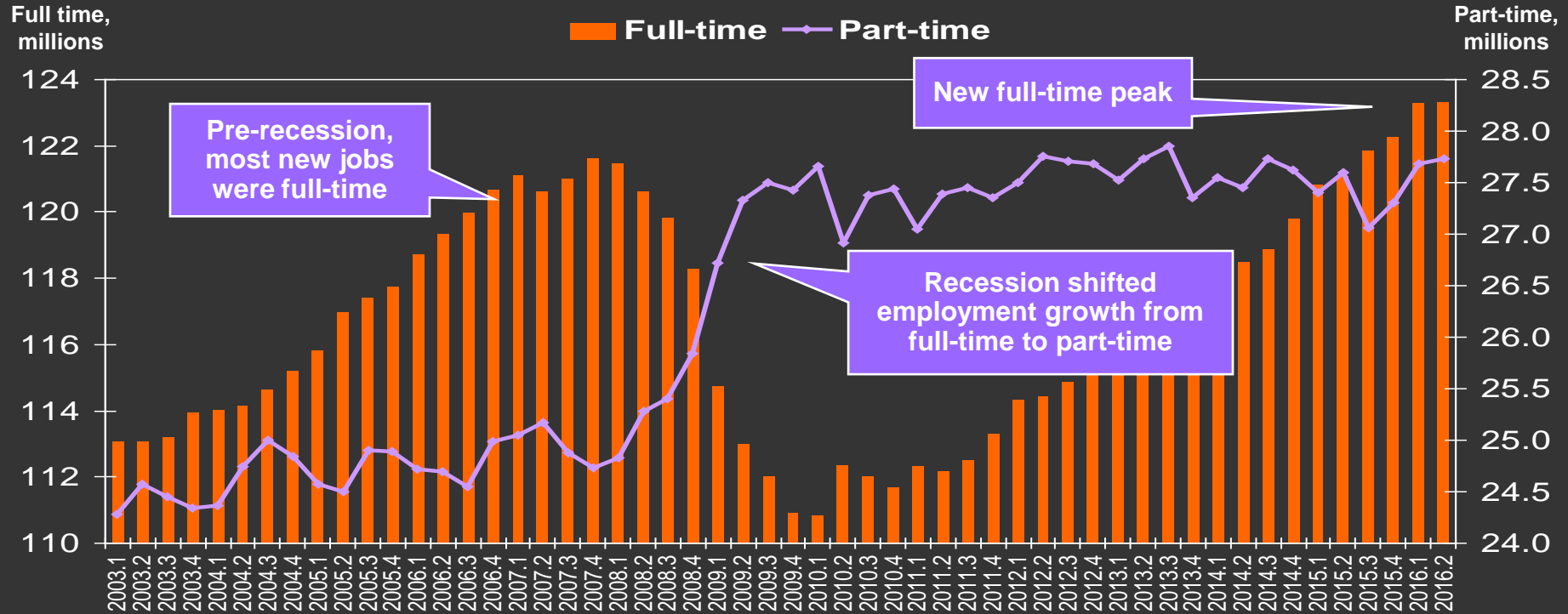
Economy



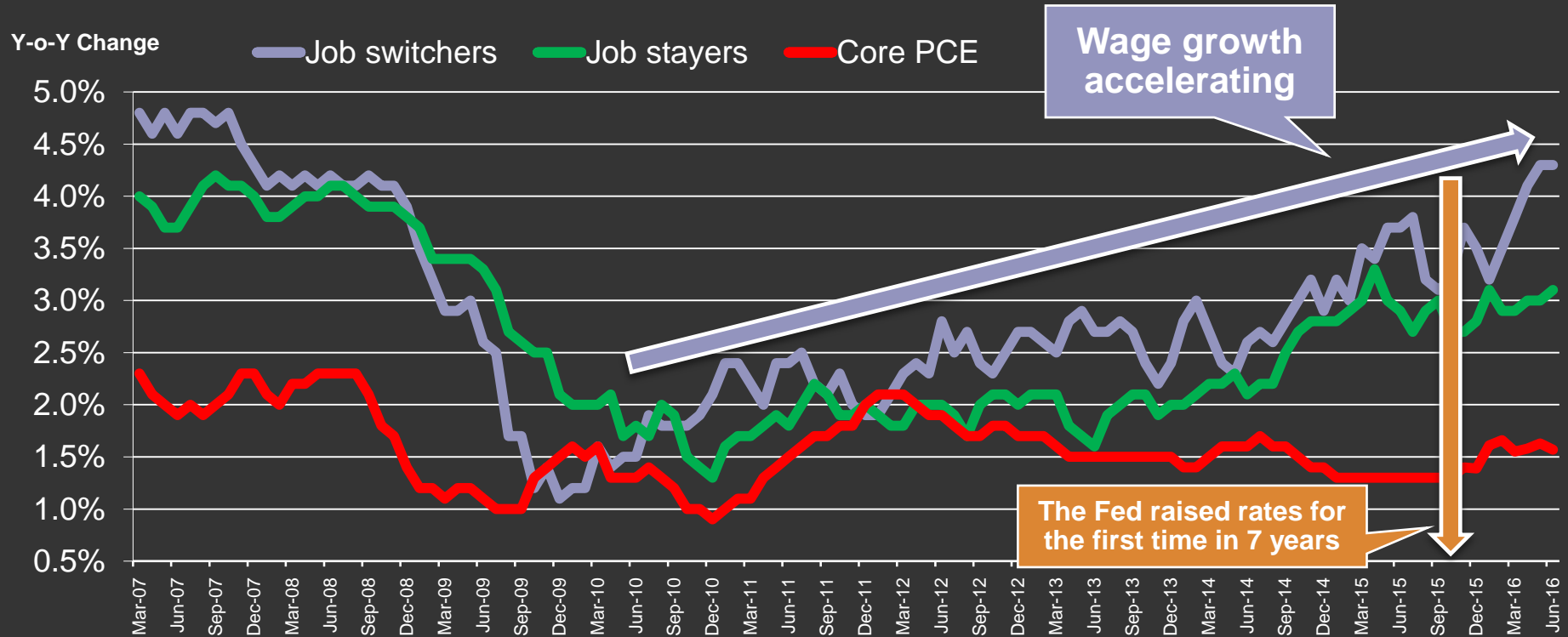
Unemployment and Underemployment Rates



Full-time vs. Part-time Employment 2003-2016



Wages Have Risen Faster Than Inflation

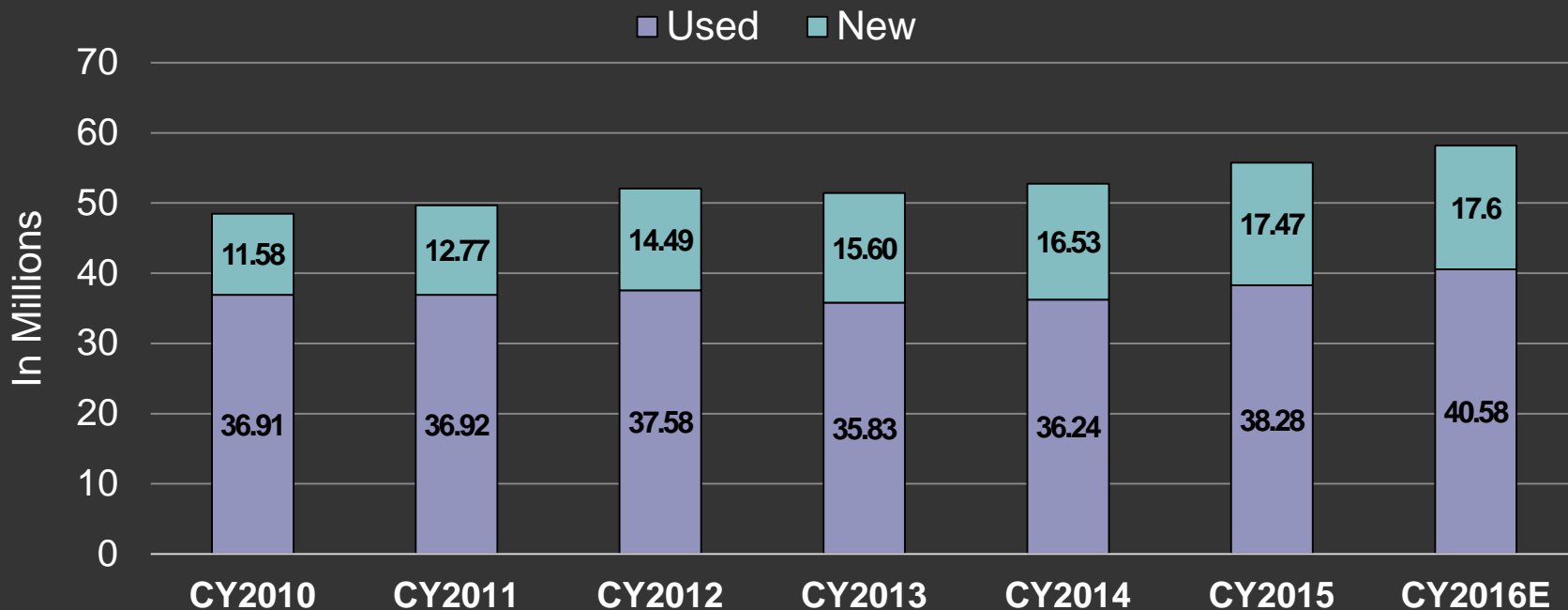


*Seasonally adjusted; year-over-year; Shaded area indicates recession.

Sources: NBER (recessions); <https://www.frbatlanta.org/chcs/wage-growth-tracker.aspx?panel=1> ; I.I.I.

Vehicle Sales Show Continued Strength

U.S. Light Vehicle Sales CY 2010 to CY 2016E

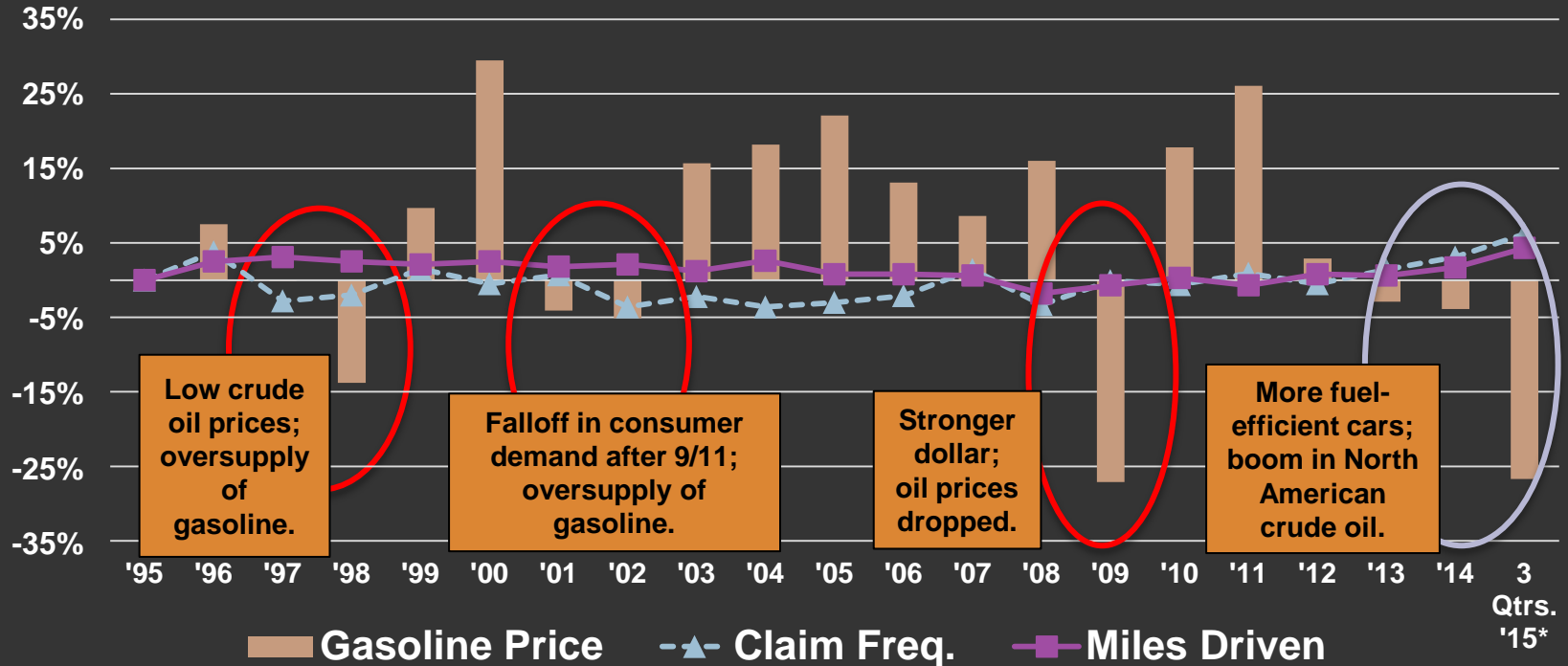


Source: Edmunds.com, Automotive News

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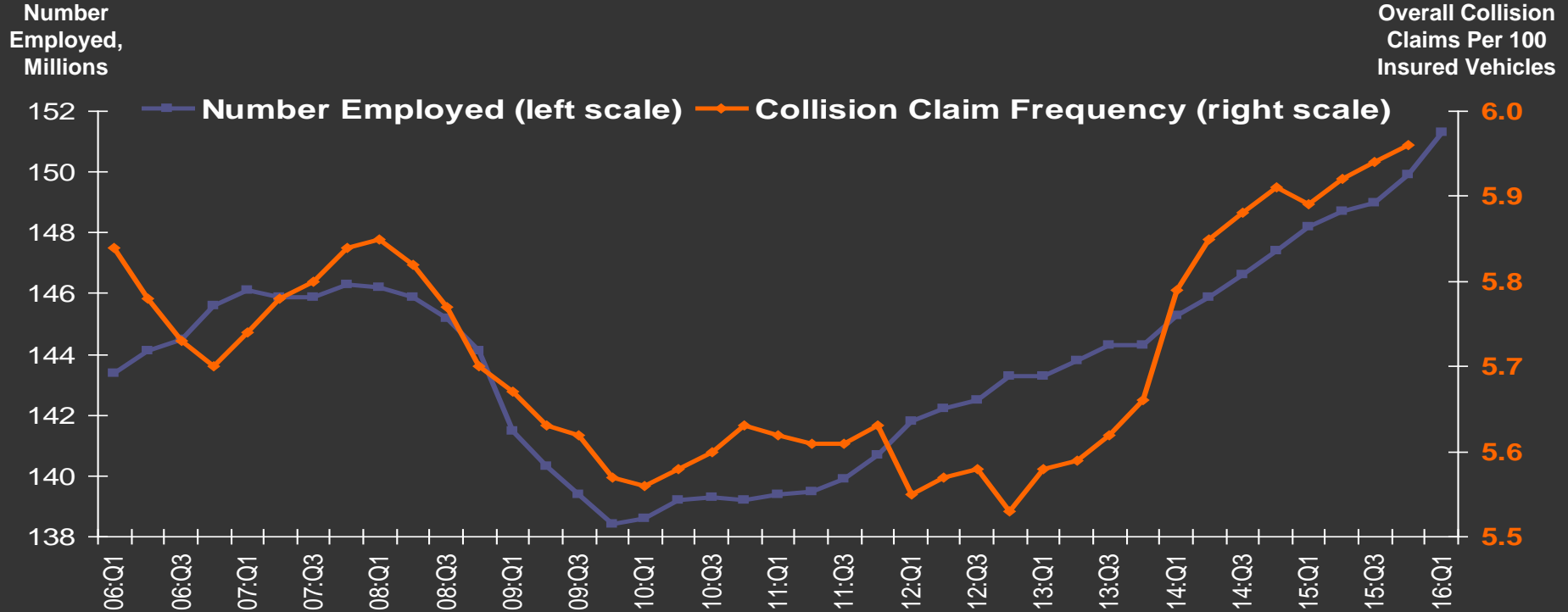
Gasoline Prices, Miles Driven and Claim Frequency

Annual Change



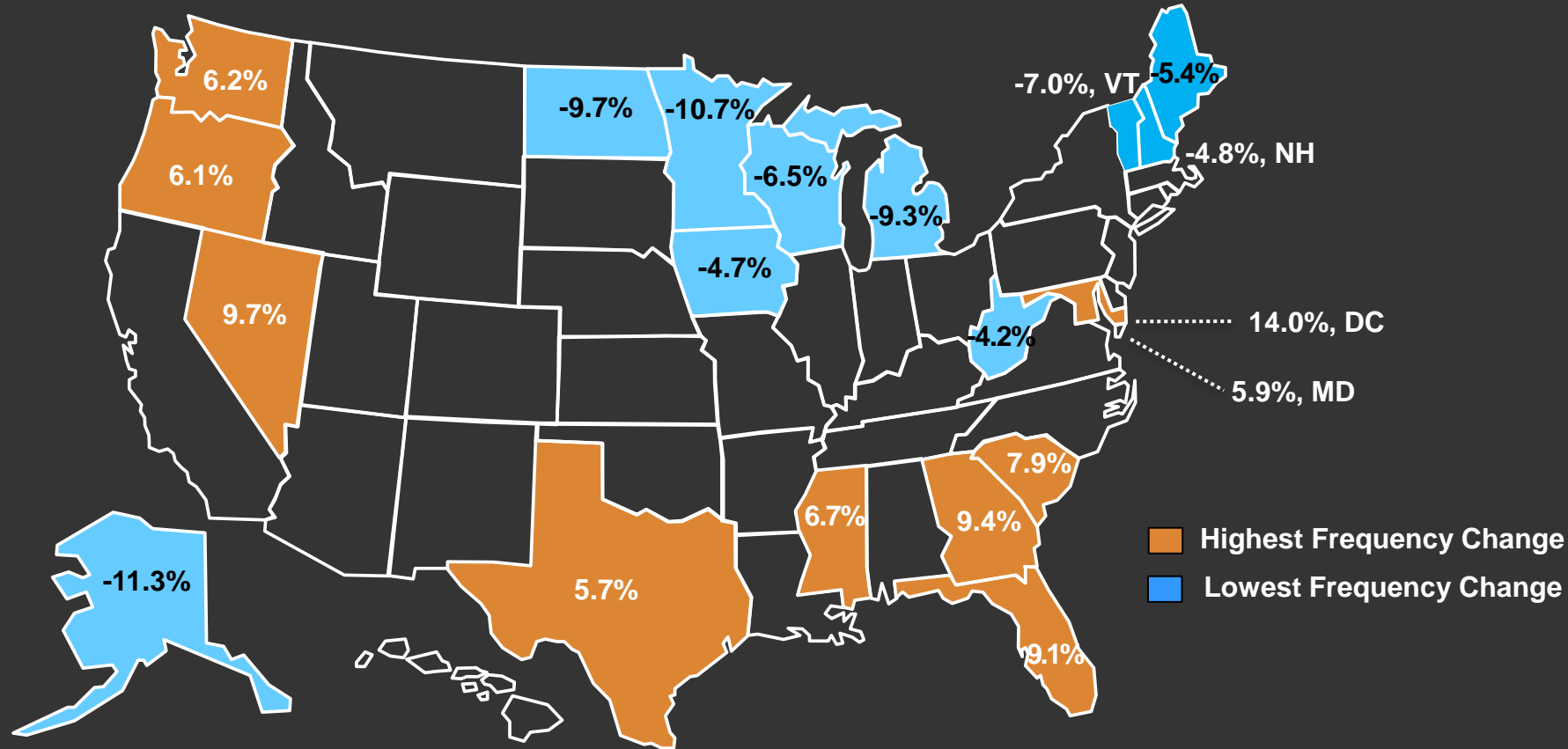
Claim frequency fell in 1997-1998, 2001-2002 and 2009 despite lower gasoline prices. * Last data point: Changes in claim frequency and miles driven reflect first 3 qtrs. of 2014 to first 3 qtrs. of 2015. Change in gasoline prices reflects 2014 to 2015 (entire years). Source: FHWA; PCI

More People Working and Driving – More Collisions



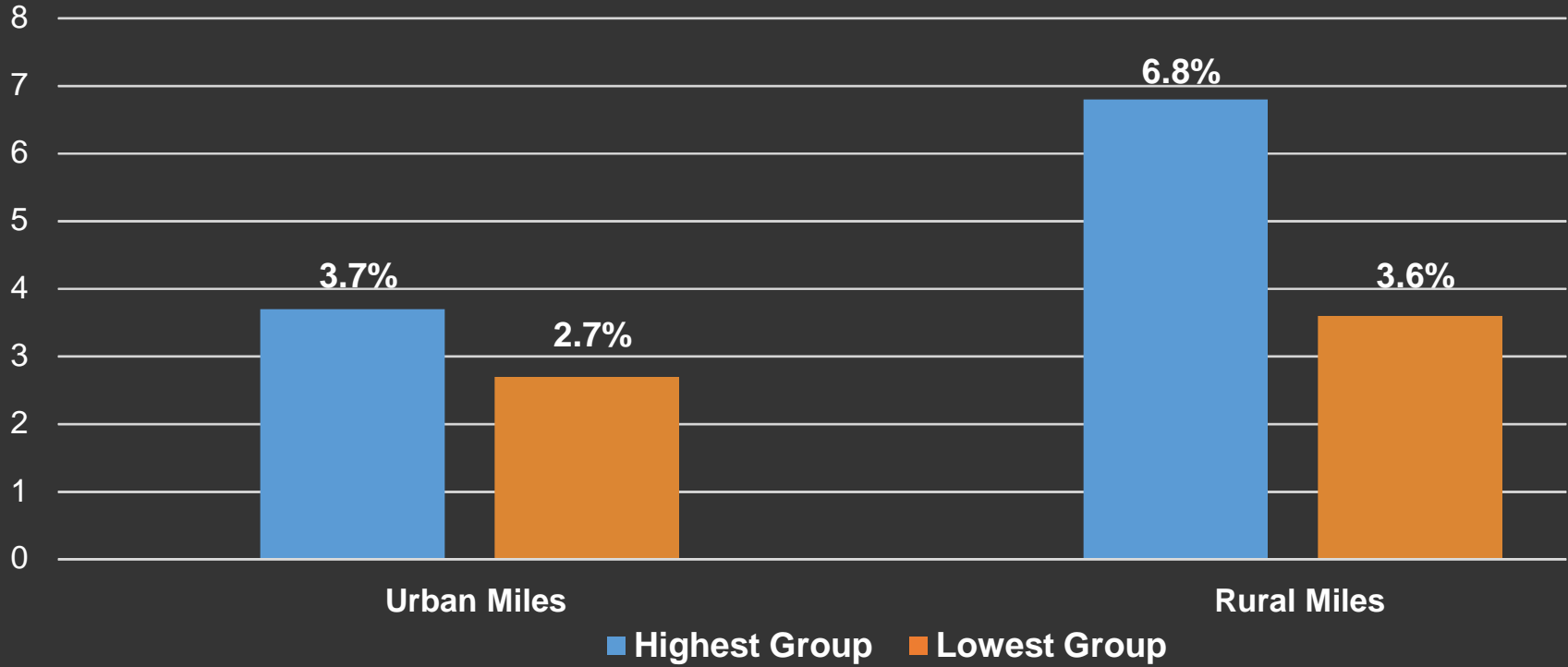
Source: Insurance Information Institute Analysis of Seasonally Adjusted Employed from Bureau of Labor Statistics; Rolling Four-Qtr Avg. Frequency from Insurance Services Office.

States with Highest and Lowest Vehicle Damage Frequency Changes



Source: PCI; Society of Actuaries using PPA Fast Track Monitoring System data

More Miles Traveled in States With Higher Claim Frequency Growth

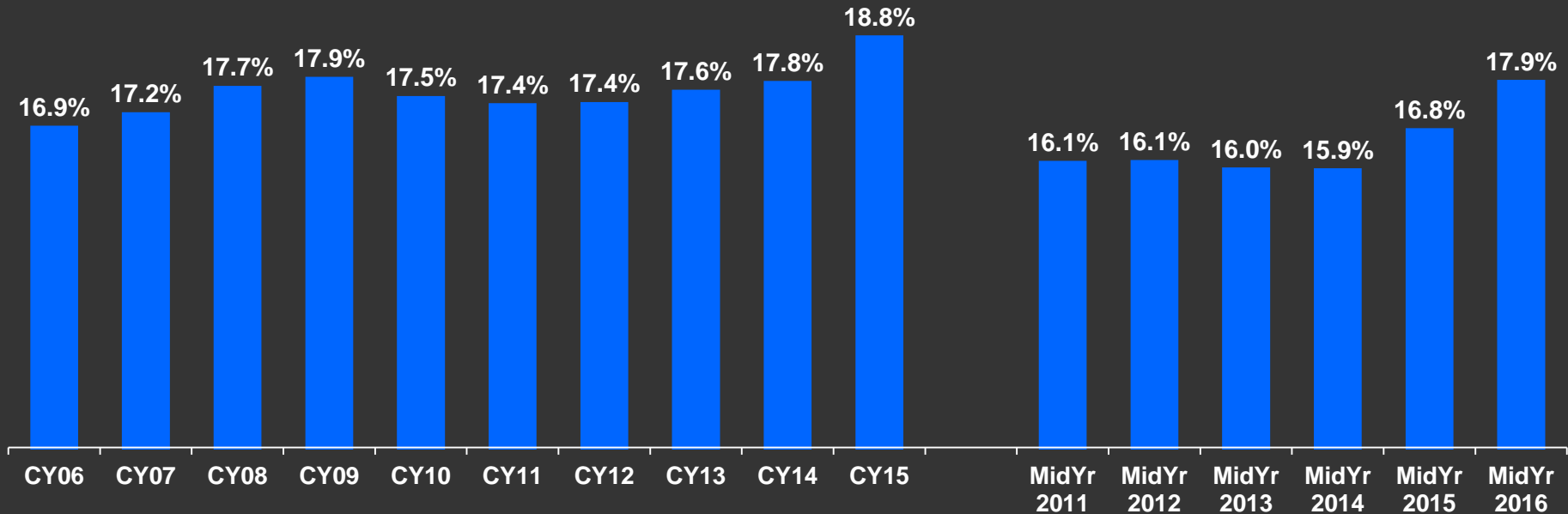


Note: Percent changes represent increases from YE Dec. 2014 to YE Dec. 2015.

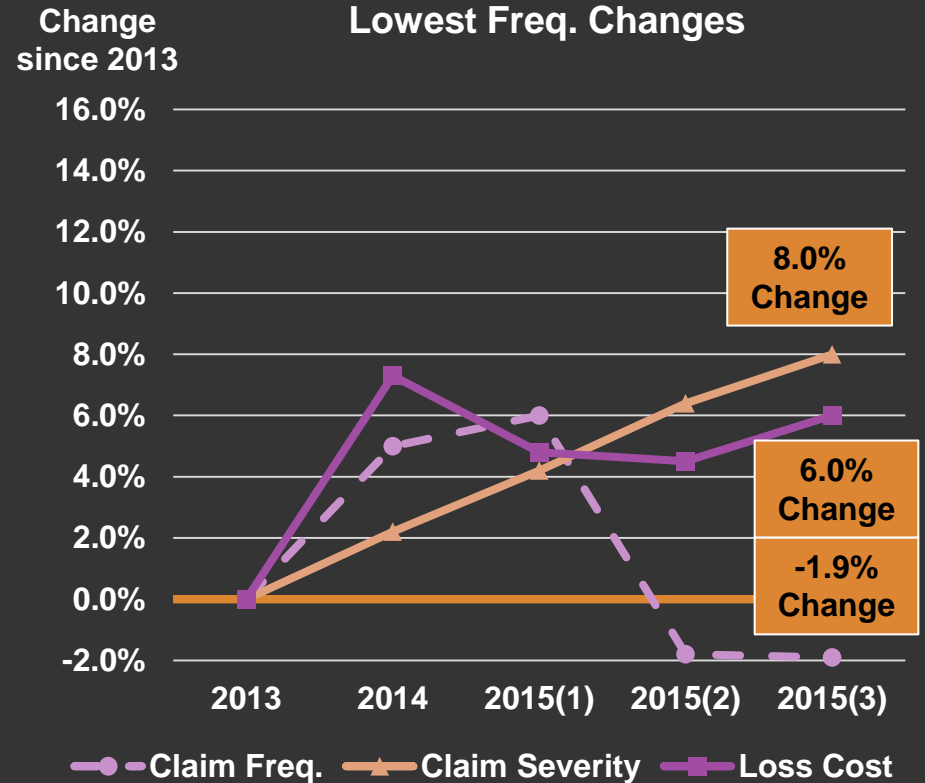
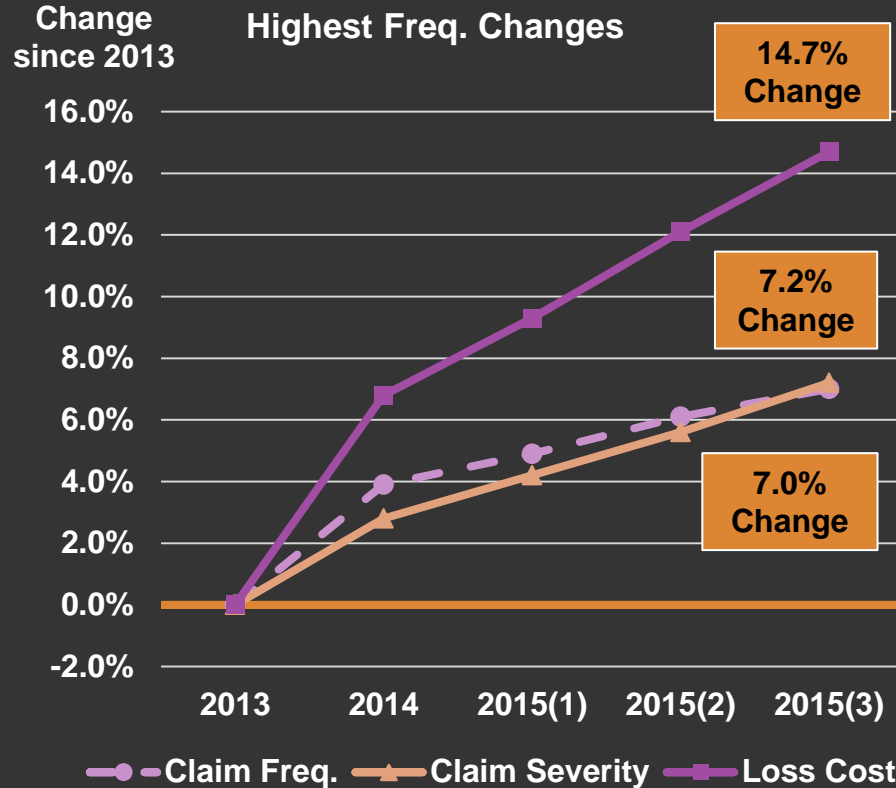
Source: PCI; Federal Highway Association (FHWA)

Total Loss Frequency Rises

Non-Comprehensive Losses Total Loss Share of Claim Count

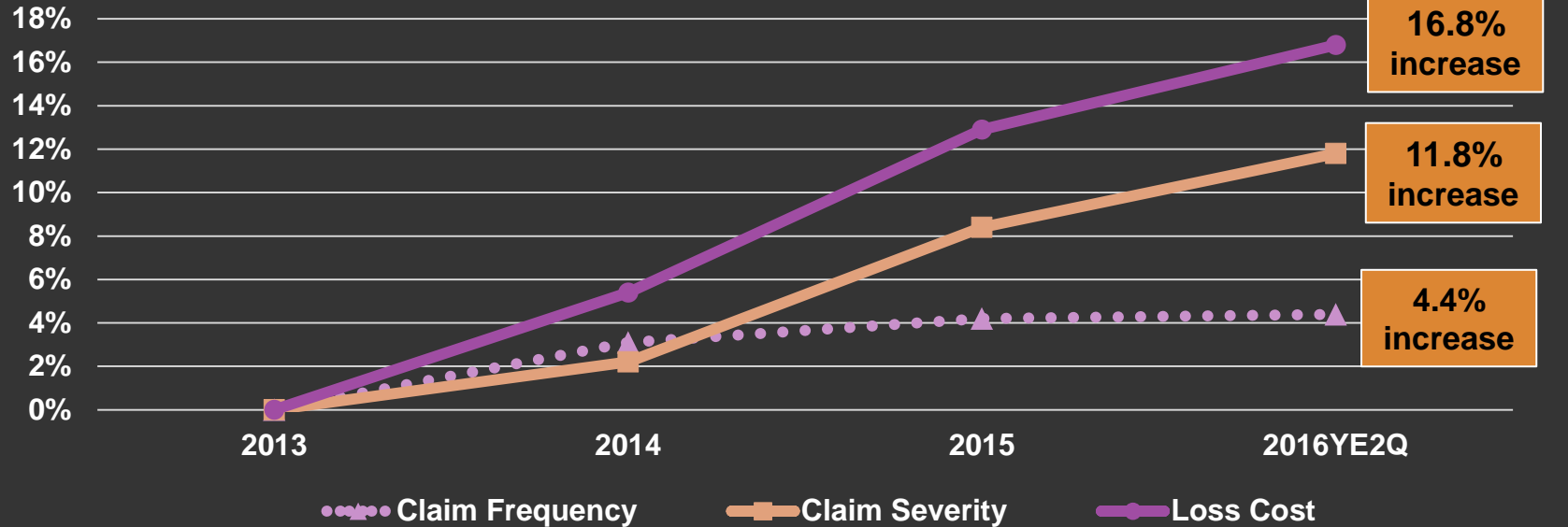


Severity Trends



Claim Frequency and Severity Affect Loss Cost

Change
since 2013



Vehicle Damage = PD Liability + Collision coverages.

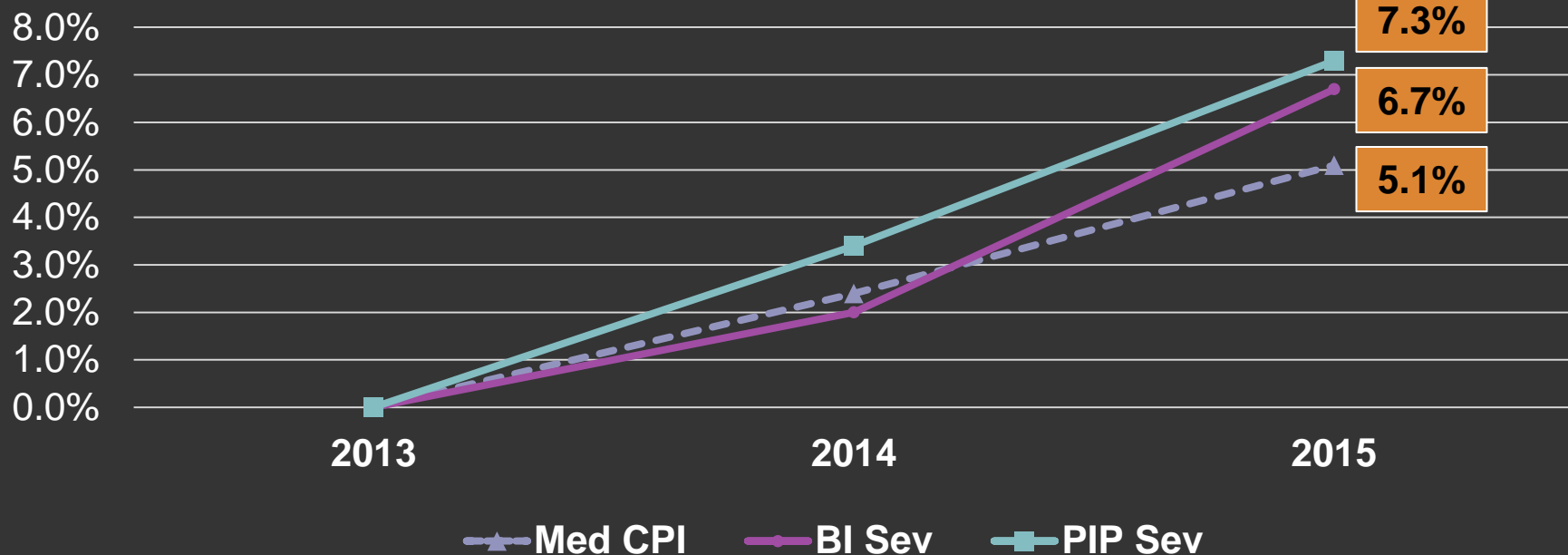
Data points reflect year-end, and combined rolling four quarters for 2016(2Q).

Source: PCI; PPA Fast Track Monitoring System, ISS, NISS and ISO

Auto Medical Increasing + Worse Than Medical CPI

Auto Injury Severity and Medical Cost CPI Indices

Change since 2013



Source: PCI using

1. Auto: PPA Fast Track Monitoring System, ISS, NISS and ISO
2. Medical CPI: Bureau of Labor Statistics

Auto Deaths/Injuries Increasing

2015

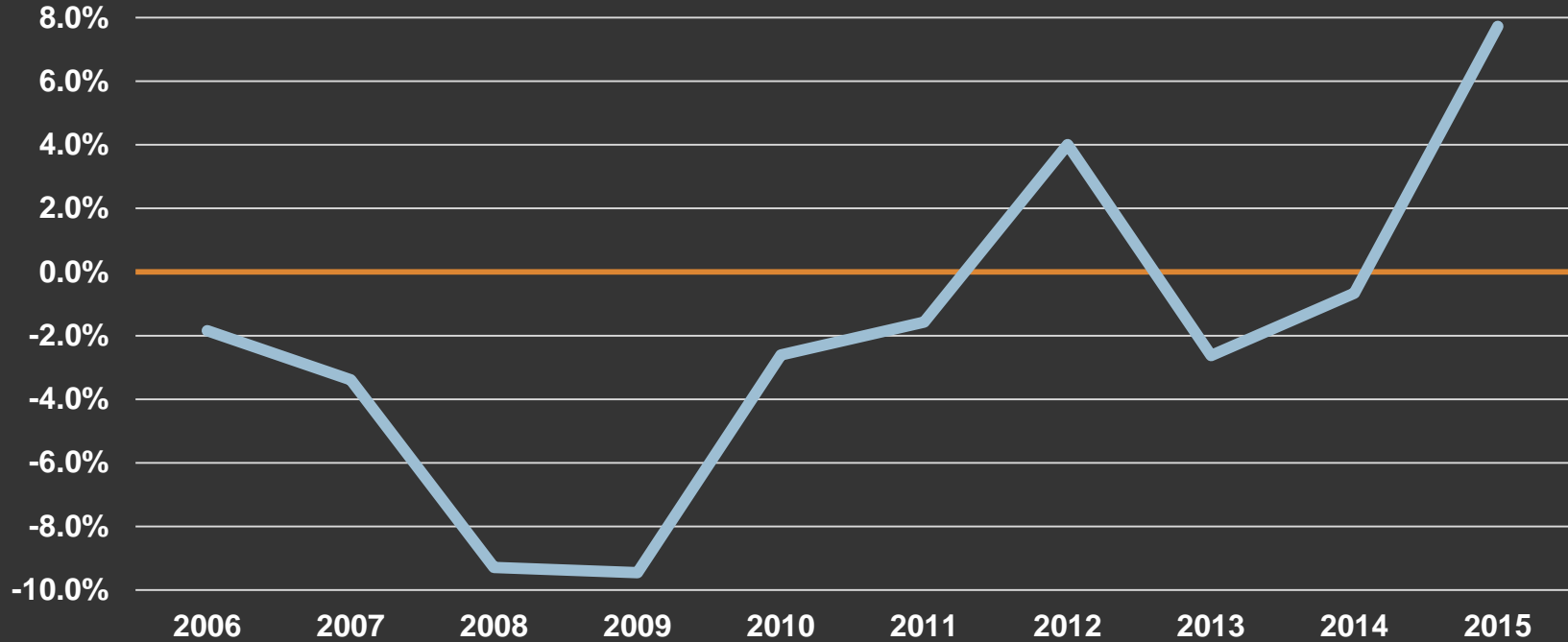
- 8% increased in auto deaths
- 4% increased death rate per mile

2016 through June

- 10% increased auto deaths
- 6% increased death rate per mile

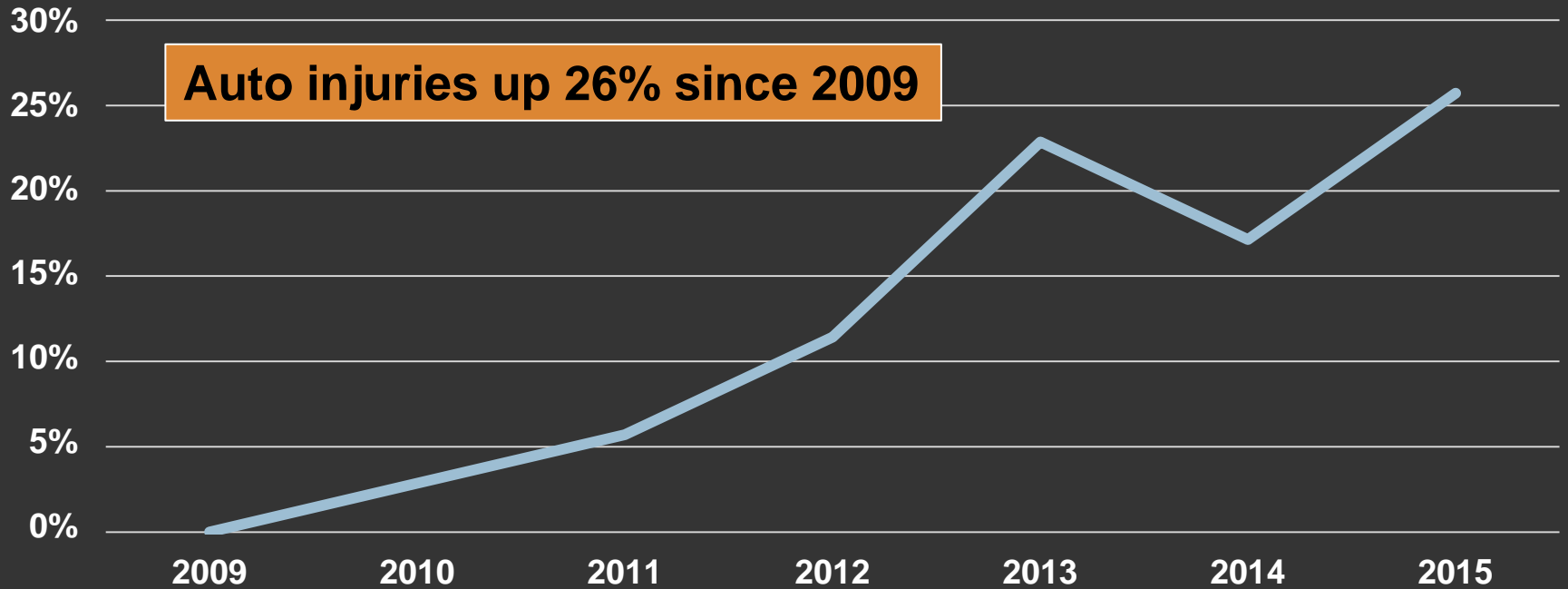
Rise in Auto Deaths

Annual Percent Change



Source: PCI; NHTSA

Rise in Auto Injuries



Source: PCI; National Safety Council, Medically consulted auto injuries, indexed by PCI

Higher Speed Limits Problematic

8%

increase in fatality rates on interstates
and freeways for every 5 mph increase
in maximum state speed limits

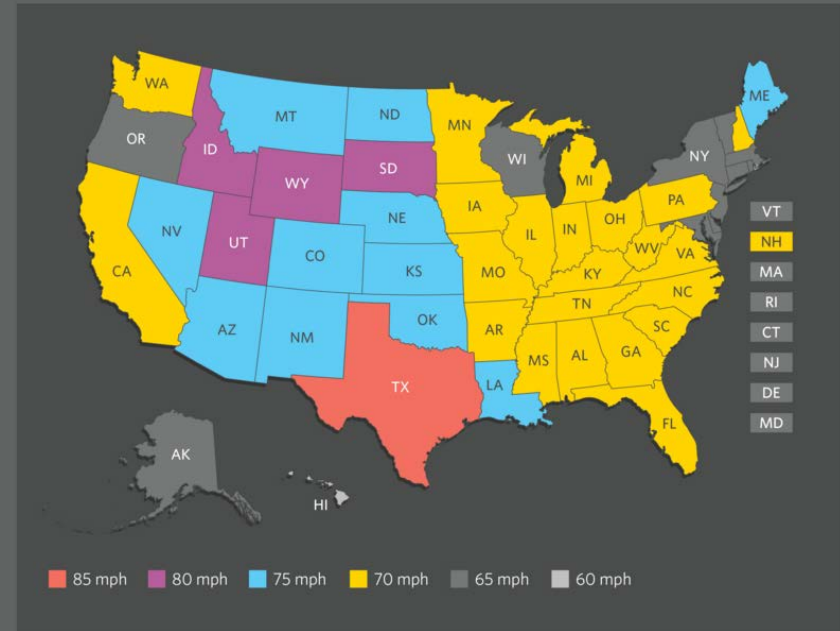
4%

increase on other roads

Source: Bergal, Jenni. "Rising Speed Limits Spur Safety Concerns." April 20, 2015. The Pew Charitable Trusts. Copyright 2016 CCC Information Services Inc. Confidential & Proprietary All Rights Reserved

Maxing Out

The highest allowable speed limits in the U.S. range from 85 mph in Texas at the top end to 60 mph in Hawaii at the bottom. The maximum daytime speeds that states allow on some stretches of their highways as of April 13:



Source: Insurance Institute for Highway Safety
© 2015 The Pew Charitable Trusts

Speed Limit Impact on Traffic Deaths

No. of Speed-Related Deaths

100

80

60

40

20

'10

'11

'12

'13

'14

UTAH

UT changes,
eff. 2013 and
2014

'10

'11

'12

'13

'14

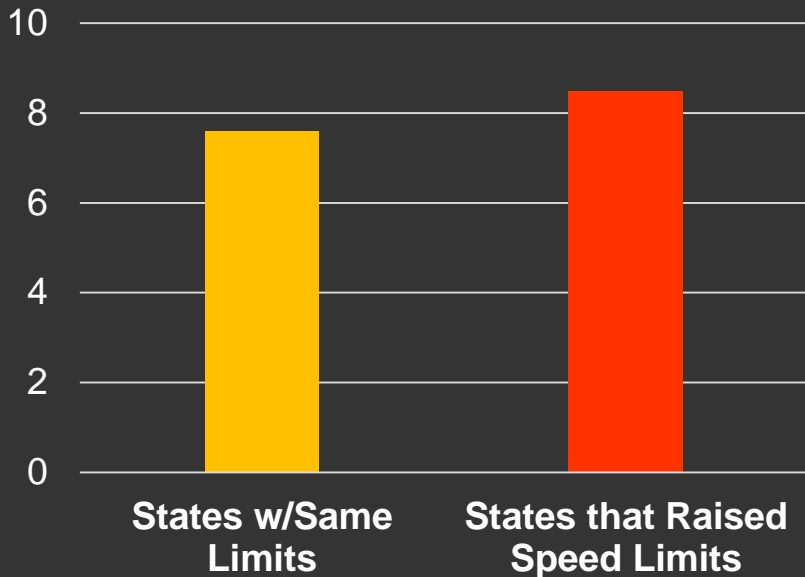
WYOMING

WY
change,
eff. 2014

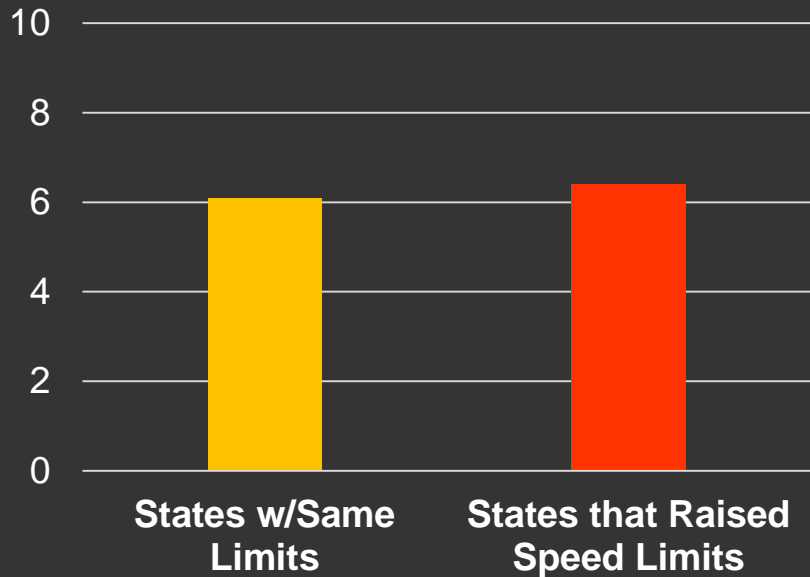


Speed Limit Impact on Severity

**Vehicle Damage Claim Severity
2013-2015**



**Injury Claim Severity
2013-2015**



Note: States that raised their speed limits since 2013 are AK, GA, ID, IL, KY, ME, NH, NC, OH, PA, SD, UT and WY. Those that changed in 2015 are not included since their new limits have been in effect for only a short time. States with same limits did not make any changes during 2011-2015.

Society



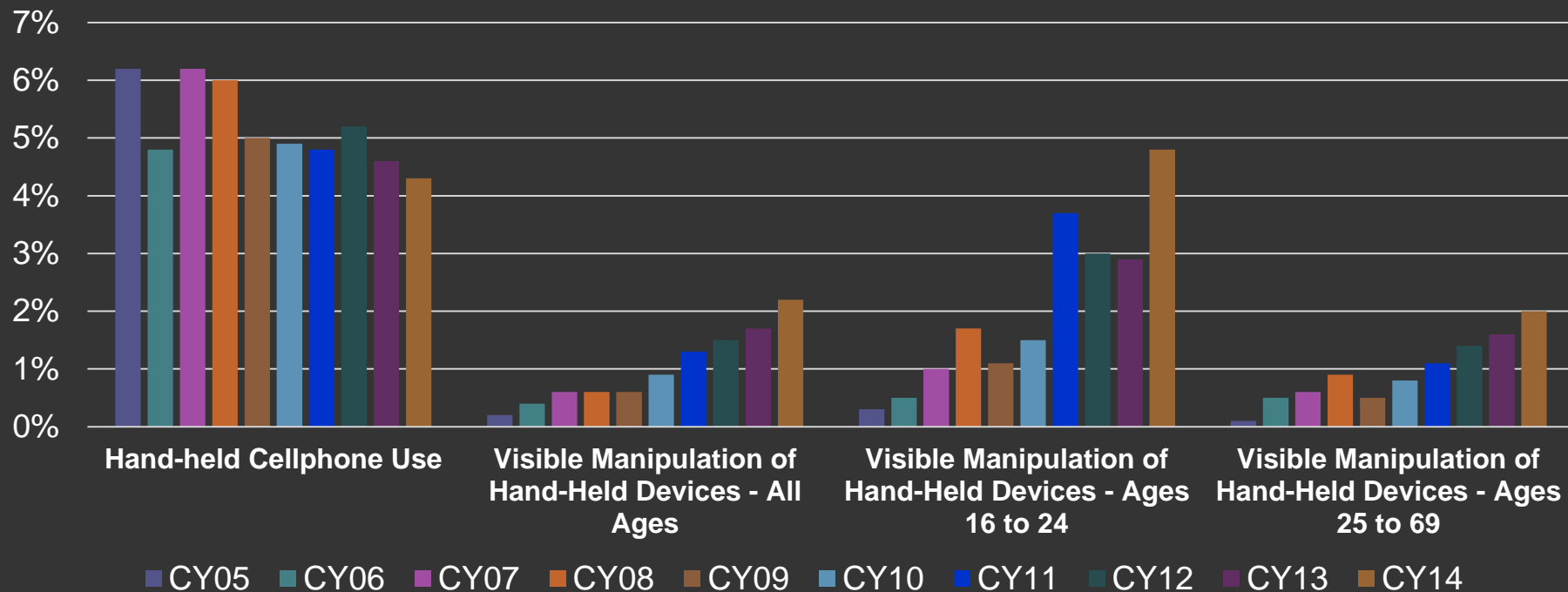
Safety Awareness Poll

70% of Americans think car safety technology has reduced the number of motor vehicle accidents, ***but in reality auto accidents are increasing.***

85% of Americans think that **distracted driving** is contributing to more motor vehicle accidents than **driving under the influence of alcohol.**

90% of Americans agree that **distracted walking** is a major, emerging problem.

Cellphone Use Declines – Texting and Emailing Grows



Source: U.S. DOT, National Traffic Safety Administration. "Driver Electronic Device Use in 2014." Traffic Safety Facts Research Note DOT HS 812 197, September 2015. Copyright 2016 CCC Information Services Inc. Confidential & Proprietary All Rights Reserved

What We Say vs. What We Do

	AAA	True Motion
Text	42%	71%
Phone	66%	92%
	Reported	Estimated
Crashes	6.3 m	17-29 m

Top 10 Distracted Driving Apps



1. Google Maps



2. Pokemon Go



3. Android Messaging



4. Facebook



5. YouTube



6. Waze



7. Amazon Music



8. Chrome

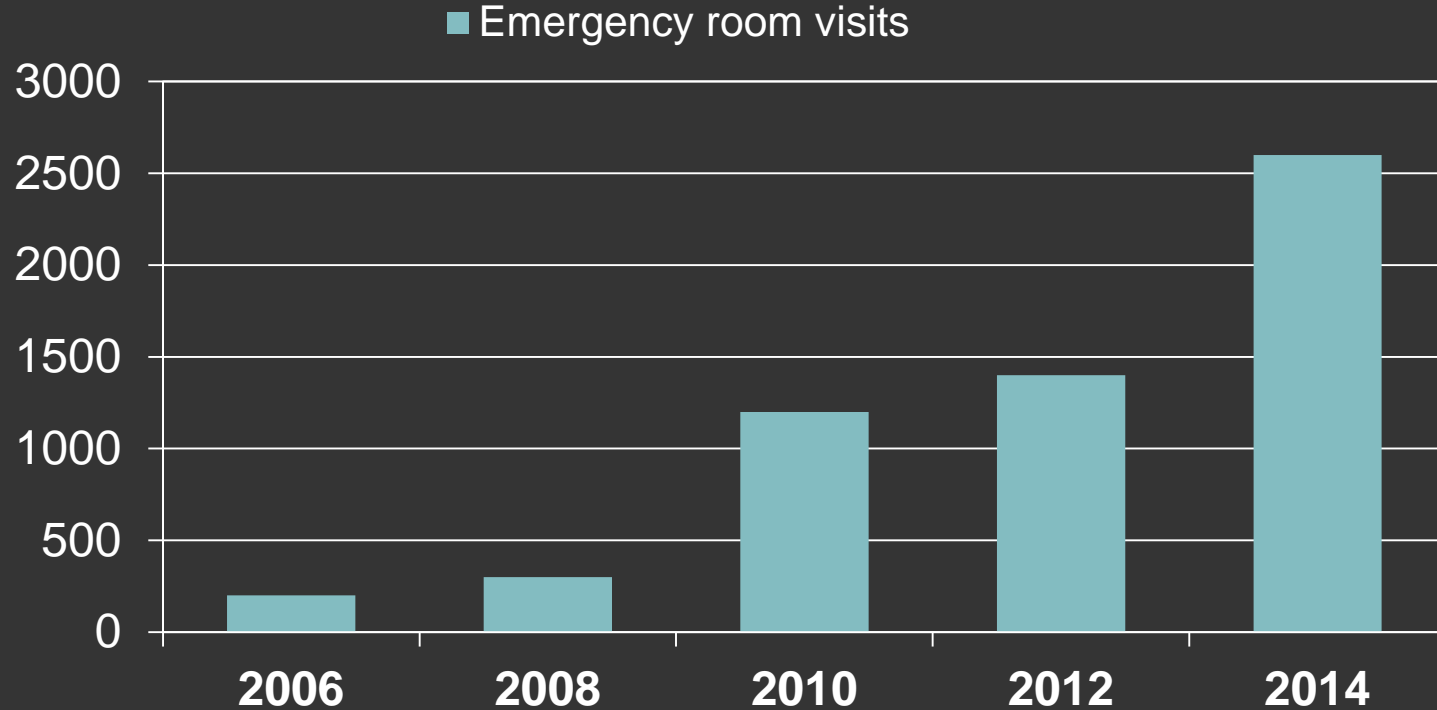


9. Pandora

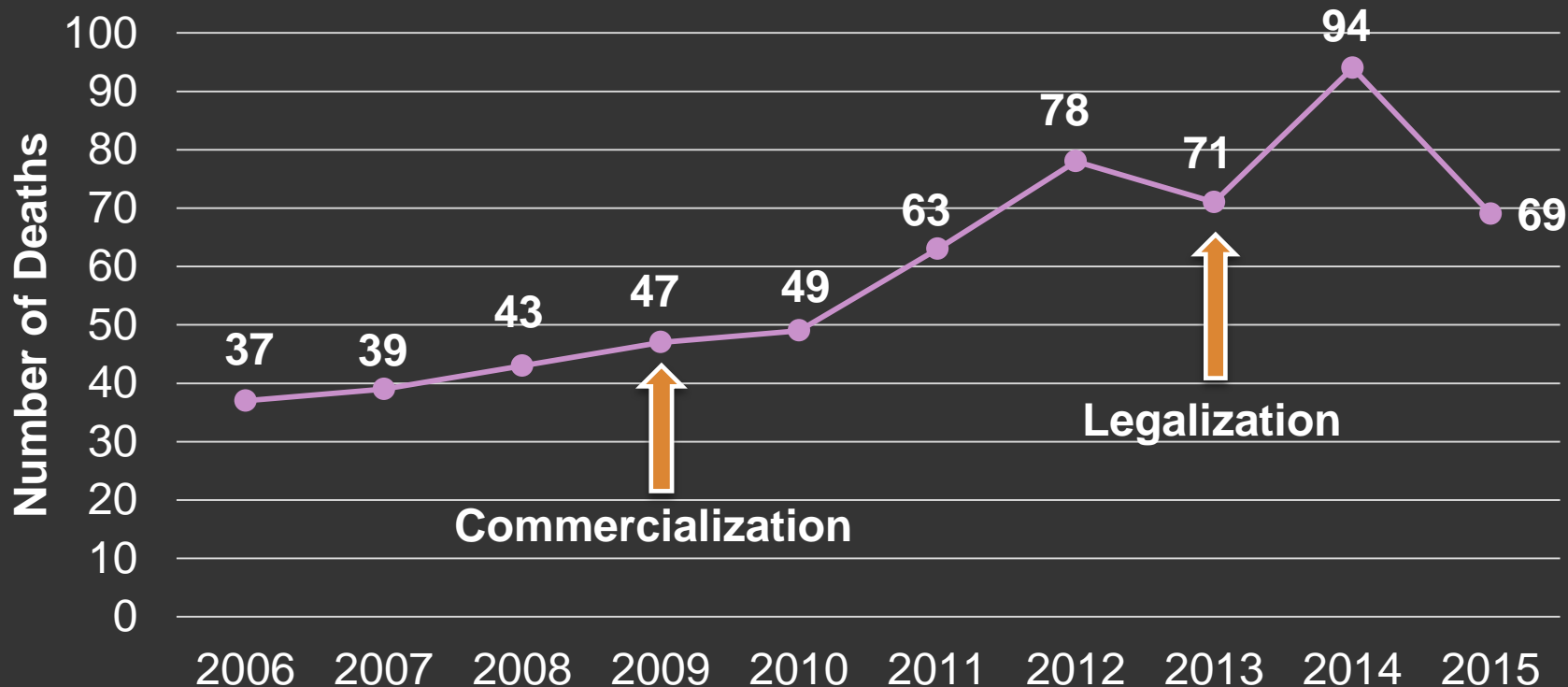


10. Netflix

Distracted Walking – A Rising Risk



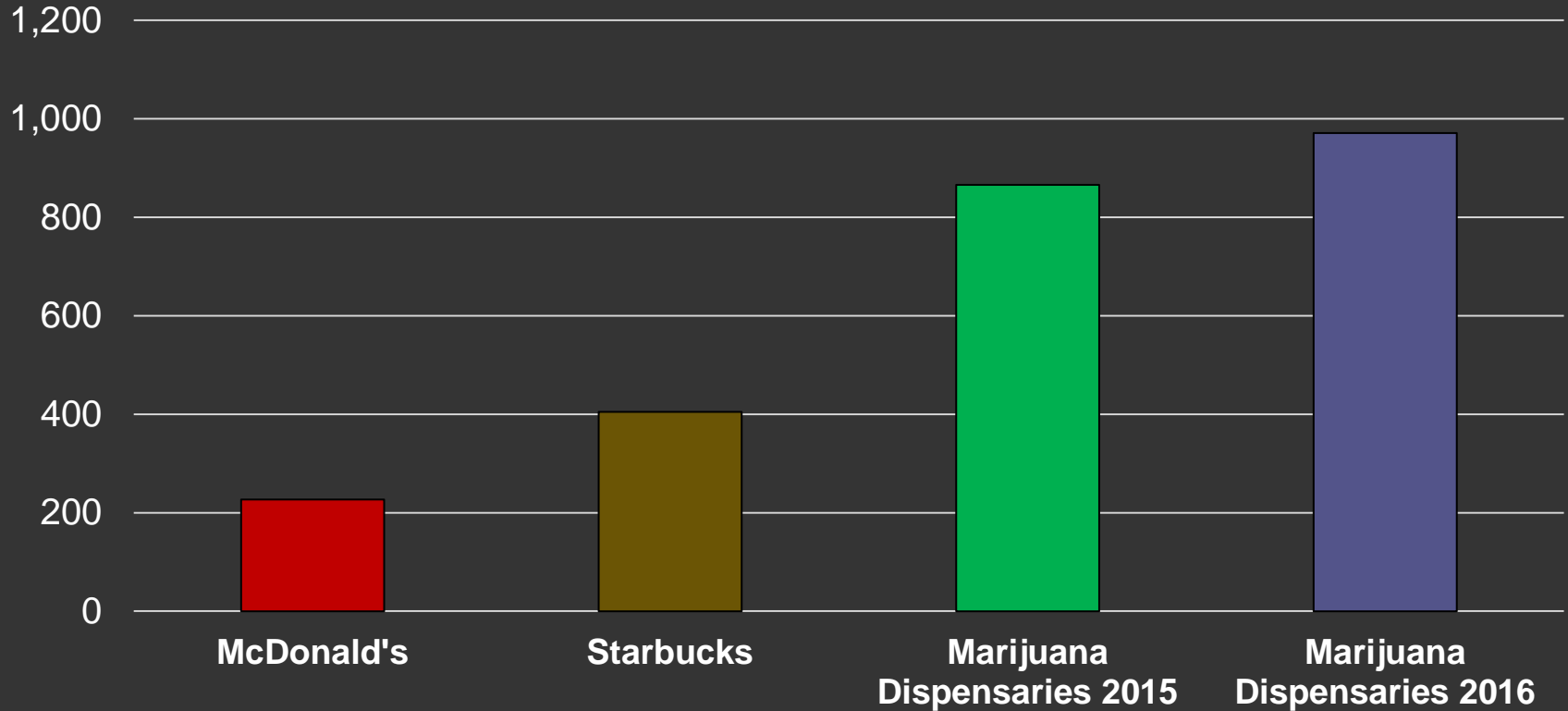
Colorado Traffic Deaths Related to Marijuana*



***Number of Fatalities Involving Operators Testing Positive for Marijuana**

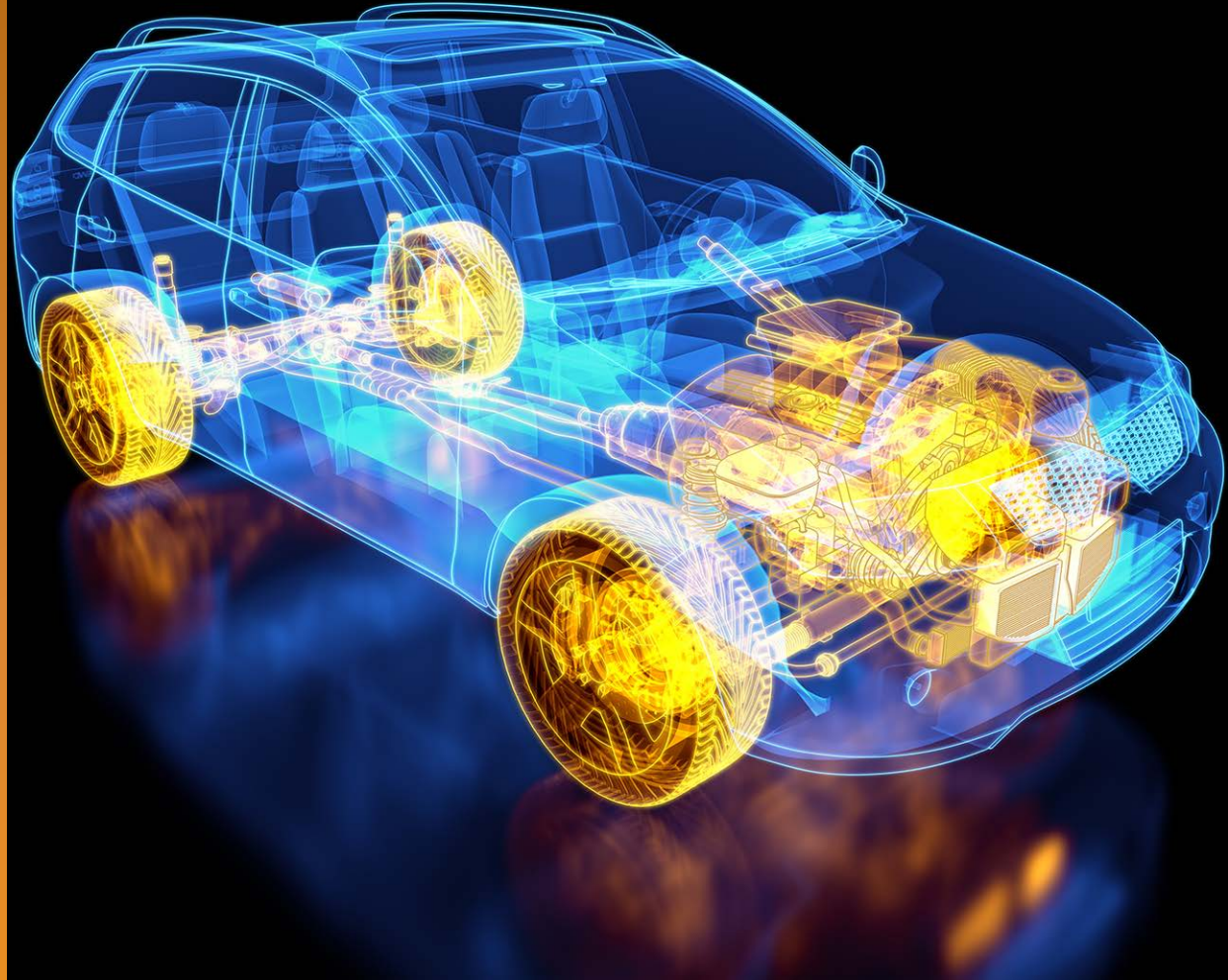
Source: National Highway Traffic Safety Administration, Fatality Analysis Reporting System (FARS), 2006-2013 and CDOT/RMHIDTA 2014, 2015

Marijuana in Colorado



Source: Colorado State Highway Patrol, March 2015; 2016 marijuana dispensaries: Colorado Dept. of Revenue

Technology



Standard Options on a Base F-150 Pickup, 1985-2015

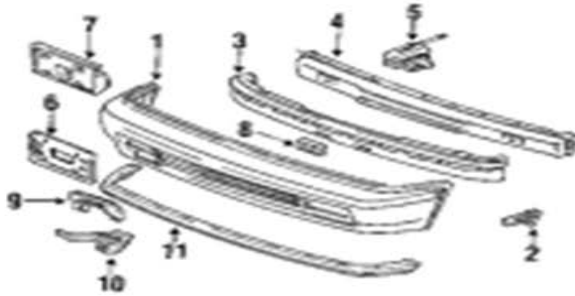
- Standard options have changed over 30 years
- Many options now required by NHTSA



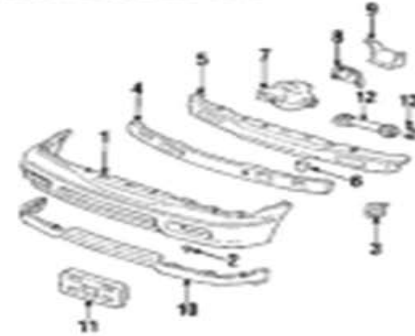
Year	1985	1995	2000	2015
				Air Conditioning
				AM Radio
				Anti-Lock Brakes
				Automatic
				Cloth Seats
				Disk Brakes
				Drivers Airbag
				Dual Mirrors
			5-Speed Transmission	FM Radio
			AM Radio	Head Curtain Airbags
			Cloth Seats	Intermittent Wipers
			Drivers Airbag	Overdrive
			Dual Mirrors	Passenger Airbag
			FM Radio	Power Brakes
		5-Speed Transmission	Intermittent Wipers	Power Steering
		AM Radio	Overdrive	Seek/Scan
		Drivers Airbag	Passenger Airbag	Side Impact Airbags
		Dual Mirrors	Power Brakes	Stability Control
		Intermittent Wipers	Power Steering	Step Bumper
	3-Speed Transmission	Overdrive	Rear Anti-Lock Brakes	Stereo
	AM Radio	Power Brakes	Seek/Scan	Styled Steel Wheels
	Dual Mirrors	Power Steering	Step Bumper	Telescopic Wheel
	Power Brakes	Rear Anti-Lock Brakes	Stereo	Tilt Wheel
	Power Steering	Styled Steel Wheels	Styled Steel Wheels	Tinted Glass
	Styled Steel Wheels	Tinted Glass	Tinted Glass	Traction Control

Not Your Father's Oldsmobile

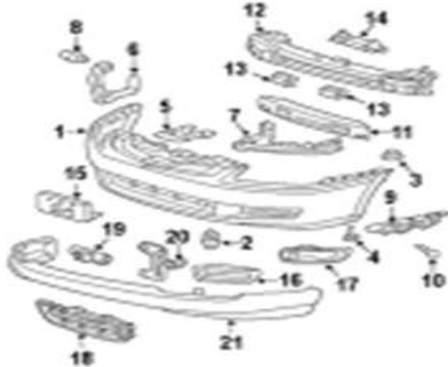
1990 Honda Accord LX



1996 Honda Accord LX



2005
Honda
Accord LX



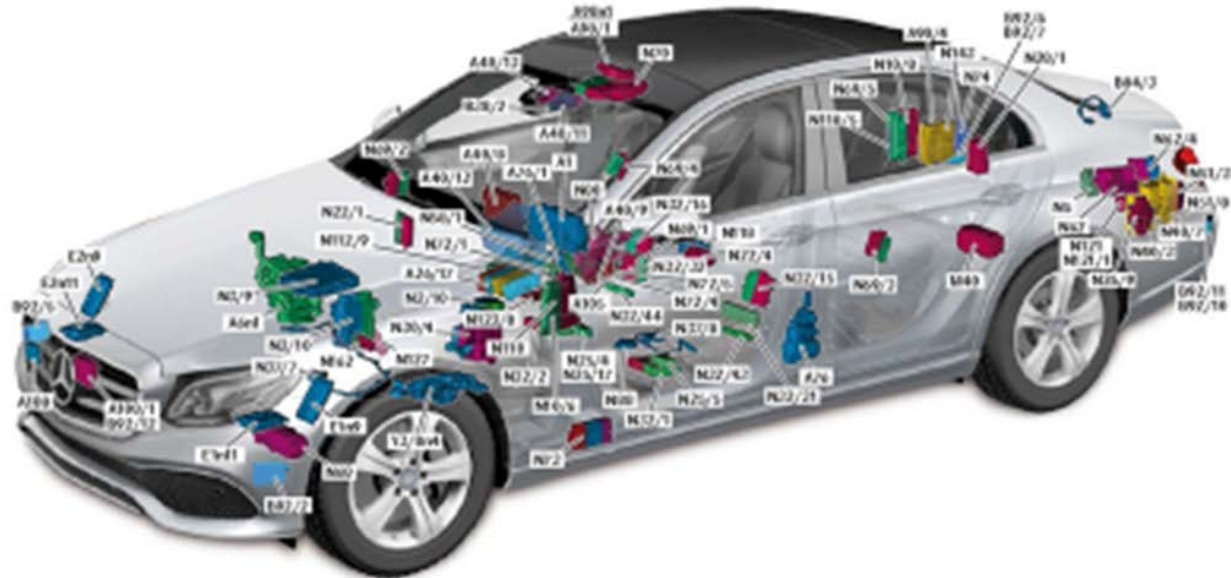
2015
Honda
Accord LX



Safety Systems

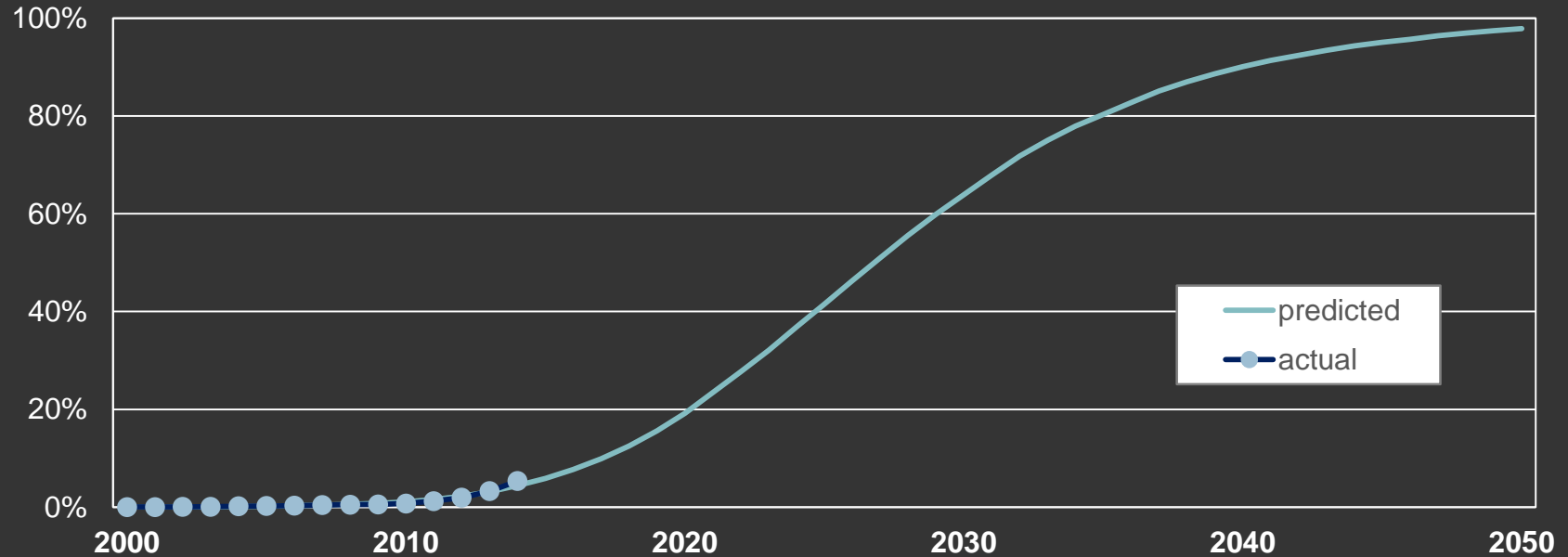
E-Class (213) Control Units

Advanced safety systems requiring more cameras and sensors in high-impact areas



MBUSA Learning & Performance | 2014-03-08

IIHS/HLDI Registered Vehicles With Front-Crash Prevention



Summary

- Economy and gas price levels will continue to produce heightened miles driven per vehicle
- New vehicle sales placing more costly complex cars in the market
- Technology in vehicles points to longer-term fewer but more expensive repairs
- Medical cost inflation will continue

Policy Recommendations

- Laws/enforcement against distracted driving
- Robust drunk/drugged driving limits
- Responsible speed limits
- Education and awareness
 - help the policymakers understand trends
 - help the public receive timely and useful information



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