

Mega Trends in Workers Compensation Past, Present and Future

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Presentation Outline



- The Post-Crisis Economy & Workers Compensation
 - The scars of the "Great Recession" are still visible on the WC line
- The New American Labor Force
- The Reindustrialization of America
- The Future of Healthcare in the United States
 - WC's future in inextricably linked to influences in this key sector
- Workers Compensation Operating Result Update
- Workers Compensation: The Next 100 Years
- Q&A

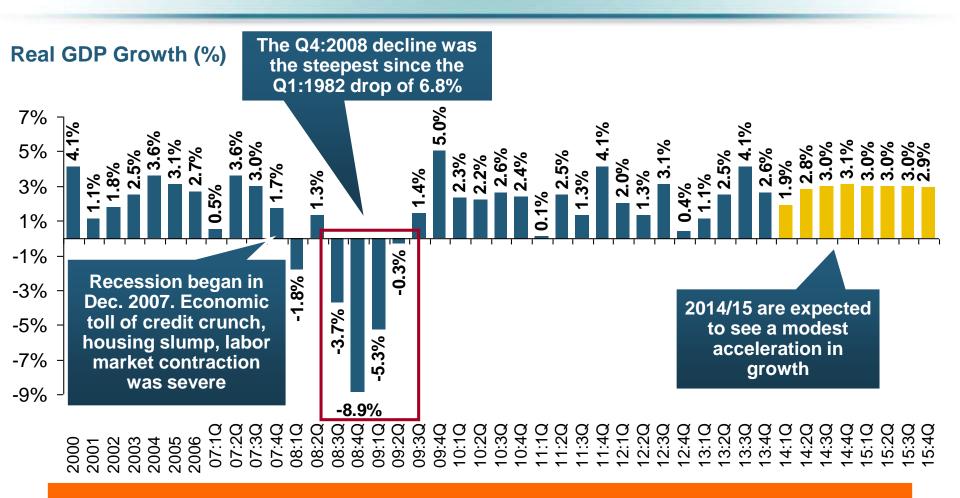


The Slow and Uneven Nature of the Economic Recovery Is Changing the WC Playing Field

Despite a Still-Sluggish Economy, there Are Potent Growth Drivers for Workers Comp and Commercial Insurers in General

US Real GDP Growth*



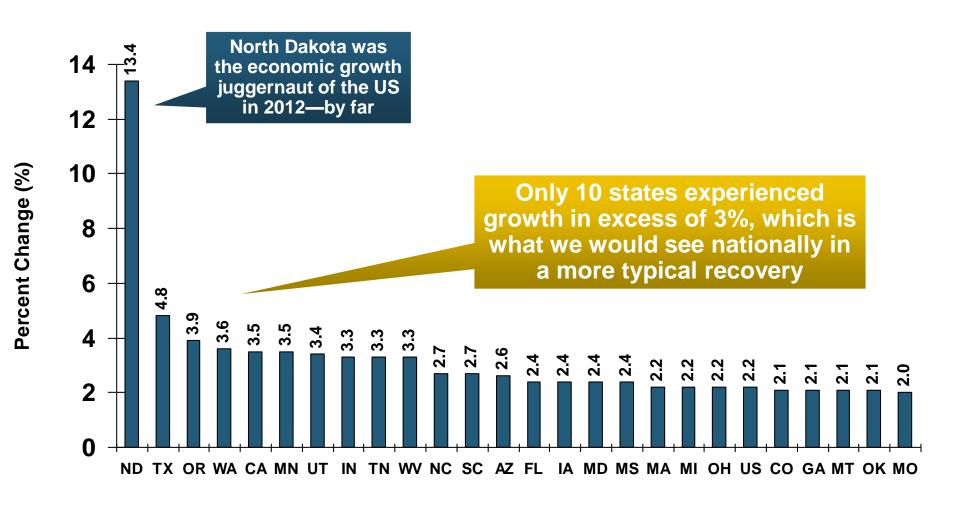


Demand for Insurance Should Increase in 2014/15 as GDP Growth Accelerates Modestly and Gradually Benefits the Economy Broadly

^{*} Estimates/Forecasts from Blue Chip Economic Indicators.

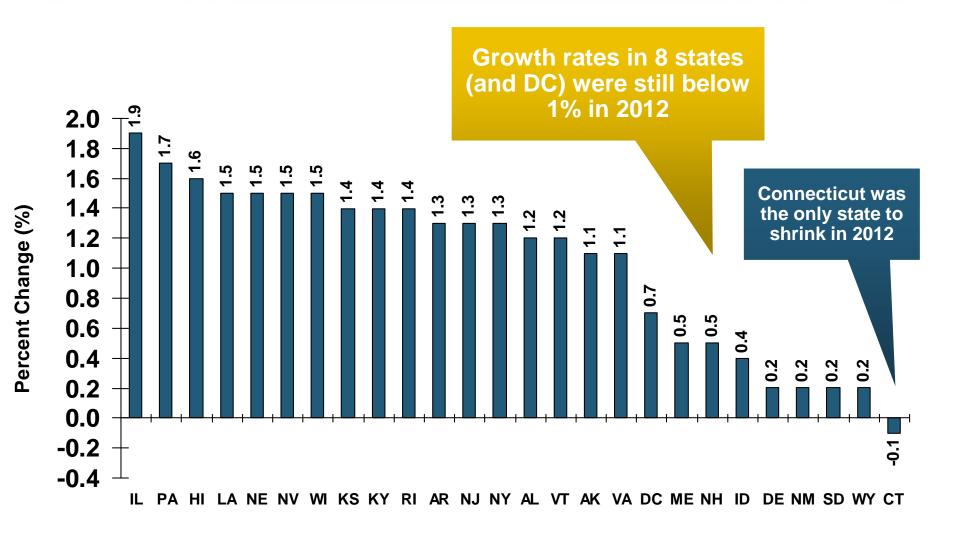
Real GDP by State Percent Change, 2012: Highest 25 States





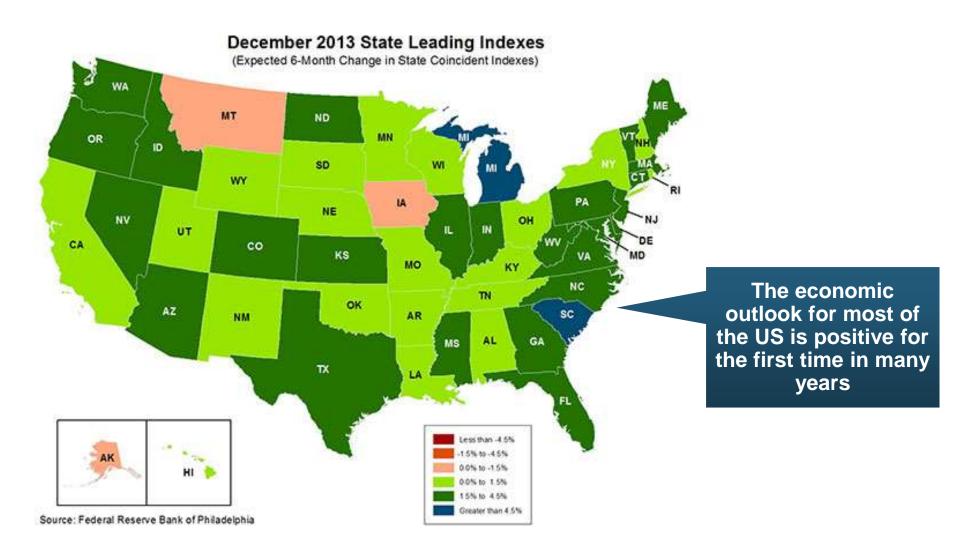
Real GDP by State Percent Change, 2012: Lowest 25 States





State-by-State Leading Indicators through 2014:Q2

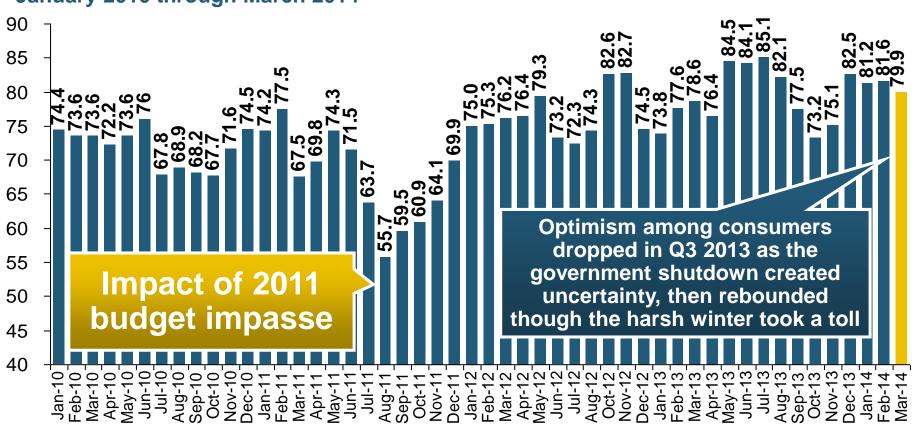




Consumer Sentiment Survey (1966 = 100)



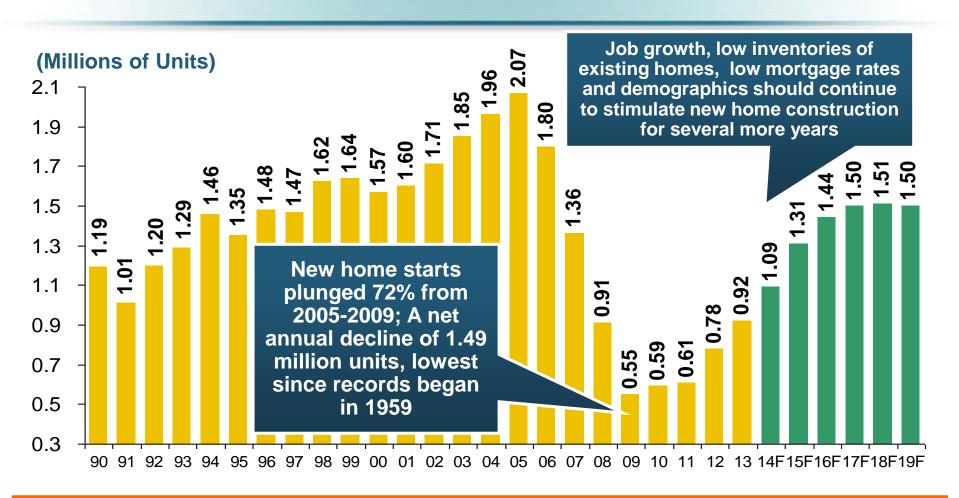




Consumer confidence has been low for years amid high unemployment, falling home prices and other factors adversely impact consumers, but improved substantially over the past 2+ years, though uncertainty in Washington sometimes takes a toll.

New Private Housing Starts, 1990-2019F

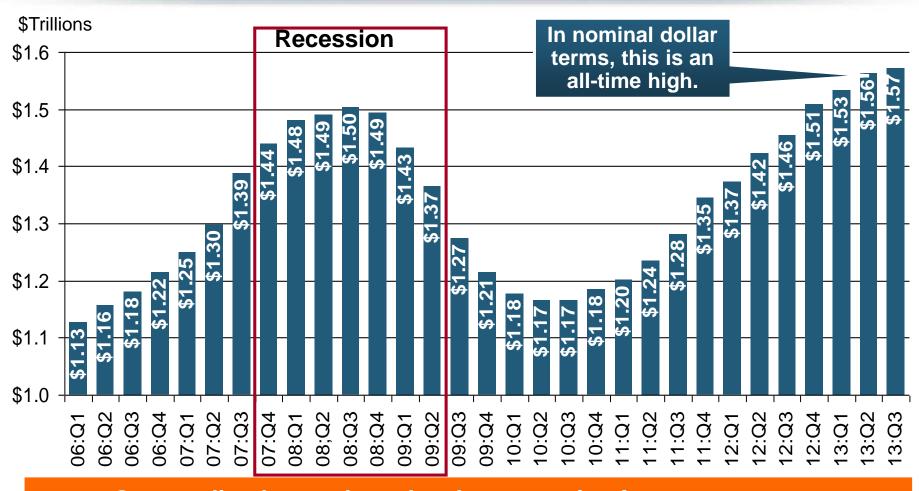




Insurers Are Continue to See Meaningful Exposure Growth in the Wake of the "Great Recession" Associated with Home Construction: Construction Risk Exposure, Surety, Commercial Auto; Potent Driver of <u>Workers Comp</u> Exposure

Commercial & Industrial Loans Outstanding at FDIC-Insured Banks, Quarterly, 2006-2013*





Outstanding loan volume has been growing for over two years and (as of year-end 2012) surpassed previous peak levels.

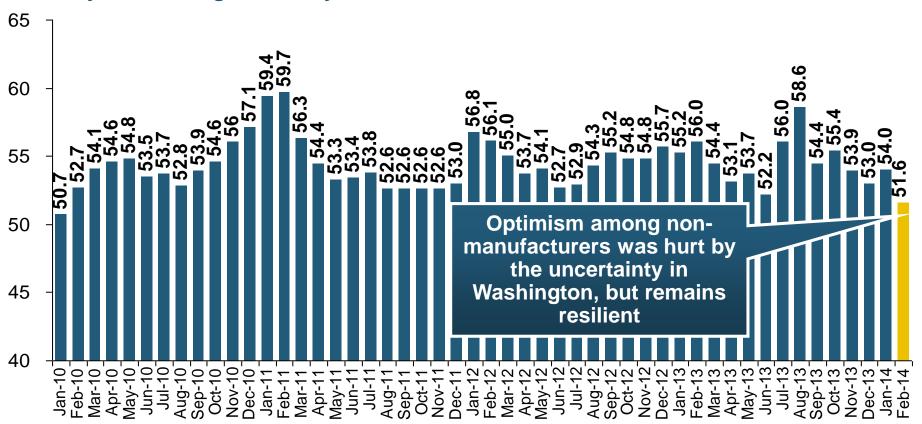
Source: FDIC at http://www2.fdic.gov/qbp/ (Loan Performance spreadsheet); Insurance Information Institute.

^{*}Latest data as of 2/2/2014.

ISM Non-Manufacturing Index (Values > 50 Indicate Expansion)



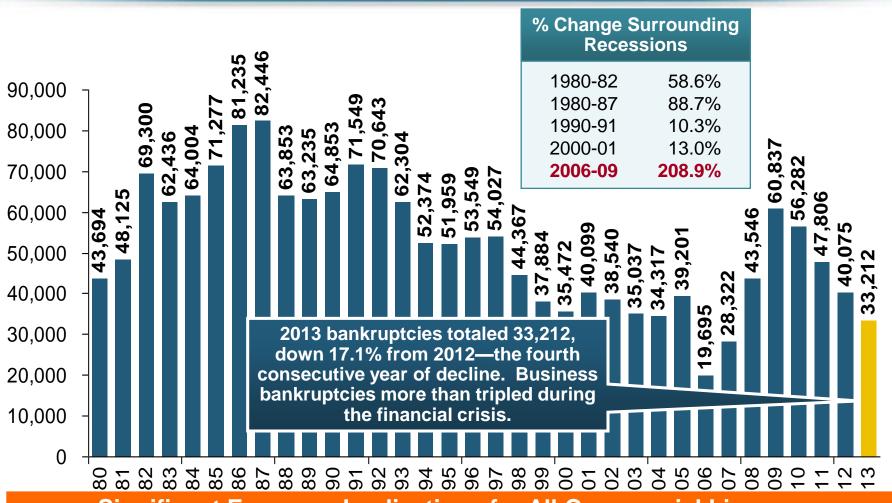
January 2010 through February 2014



Non-manufacturing industries have been expanding and adding jobs. This trend is likely to continue through 2014.

Business Bankruptcy Filings, 1980-2013



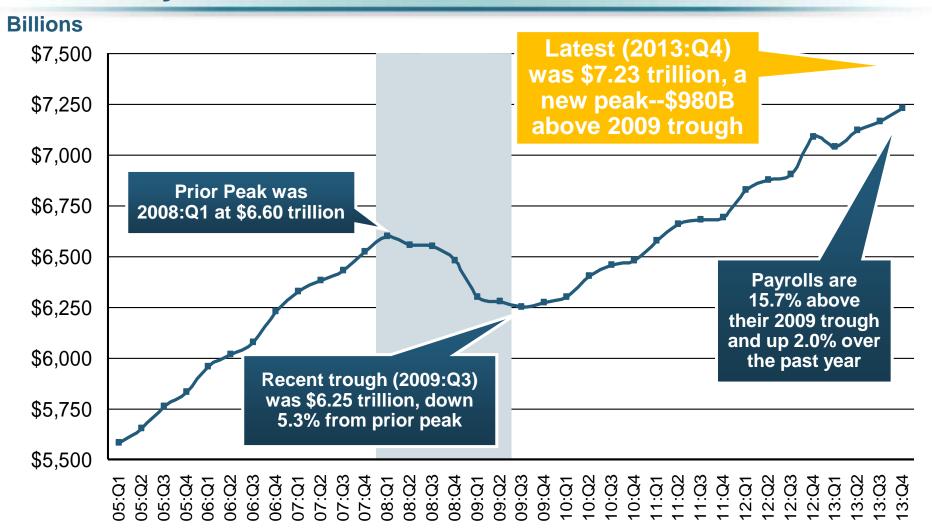


Significant Exposure Implications for All Commercial Lines as Business Bankruptcies Begin to Decline

Sources: American Bankruptcy Institute (1980-2012) at http://www.abiworld.org/AM/AMTemplate.cfm?Section=Home&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=61633; 2013 data from United States Courts at http://news.uscourts.gov; Insurance Information Institute.

Nonfarm Payroll (Wages and Salaries): Quarterly, 2005–2013:Q4





Note: Recession indicated by gray shaded column. Data are seasonally adjusted annual rates.

Sources: http://research.stlouisfed.org/fred2/series/WASCUR; National Bureau of Economic Research (recession dates); Insurance Information Institute.

12 Industries for the Next 10 Years: Insurance Solutions Needed



Health Care

Health Sciences

Energy (Traditional)

Alternative Energy

Petrochemical

Agriculture

Natural Resources

Technology (incl. Biotechnology)

Light Manufacturing

Insourced Manufacturing

Export-Oriented Industries

Shipping (Rail, Marine, Trucking, Pipelines)

Many
industries are
poised for
growth,
though
insurers'
ability to
capitalize on
these
industries
varies widely

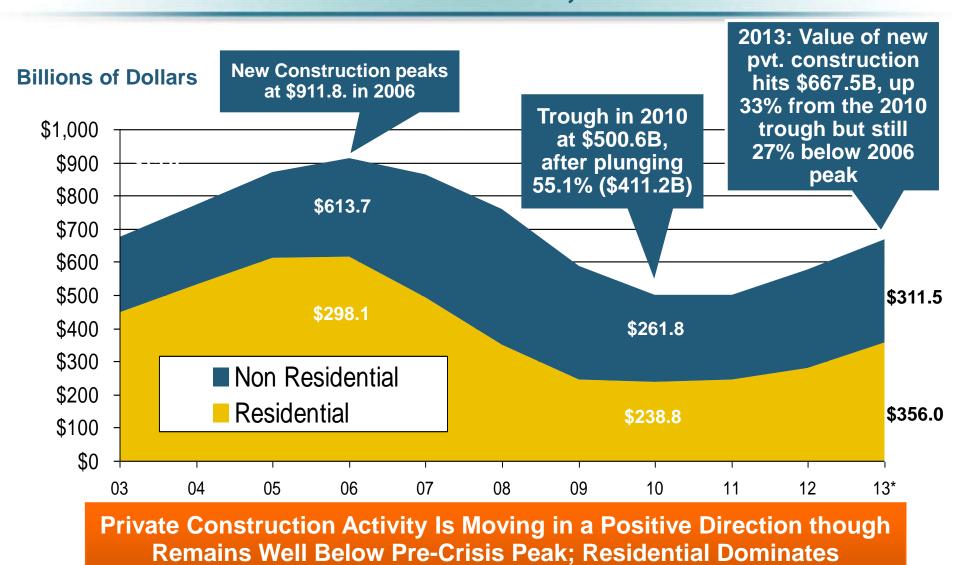


CONSTRUCTION INDUSTRY OVERVIEW & OUTLOOK

The Construction Sector Is Critical to the Economy and the WC Insurers

Value of New Private Construction: Residential & Nonresidential, 2003-2013*

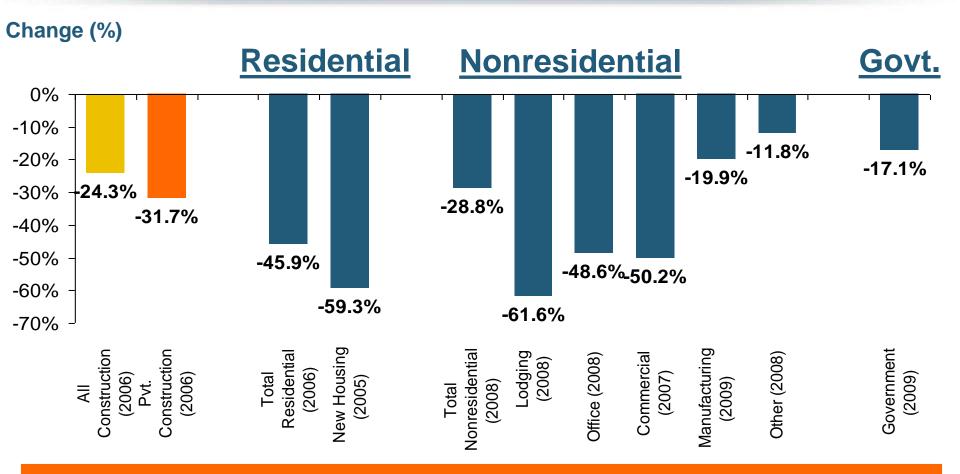




^{*2013} figure is a seasonally adjusted annual rate as of December. Sources: US Department of Commerce; Insurance Information Institute.

Change from Peak in New Construction Expenditures to 2013*





Despite Recent Improvements, Construction Activity (and Employment)
Remains Far Below Pre-Crisis Peaks

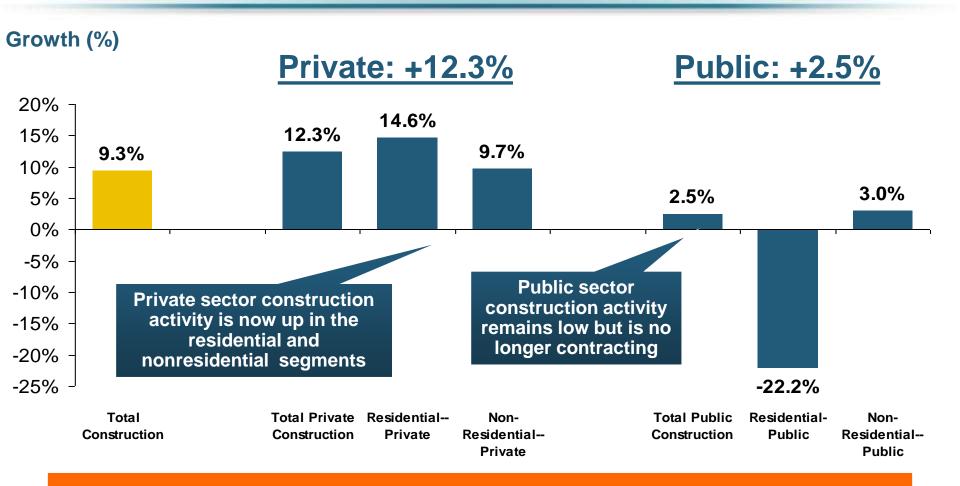
Note: Year in parentheses is the year of peak expenditure.

Sources: US Department of Commerce; Insurance Information Institute.

^{*2013} figure is a seasonally adjusted annual rate as of June.

Value of Construction Put in Place, January 2014 vs. January 2013*



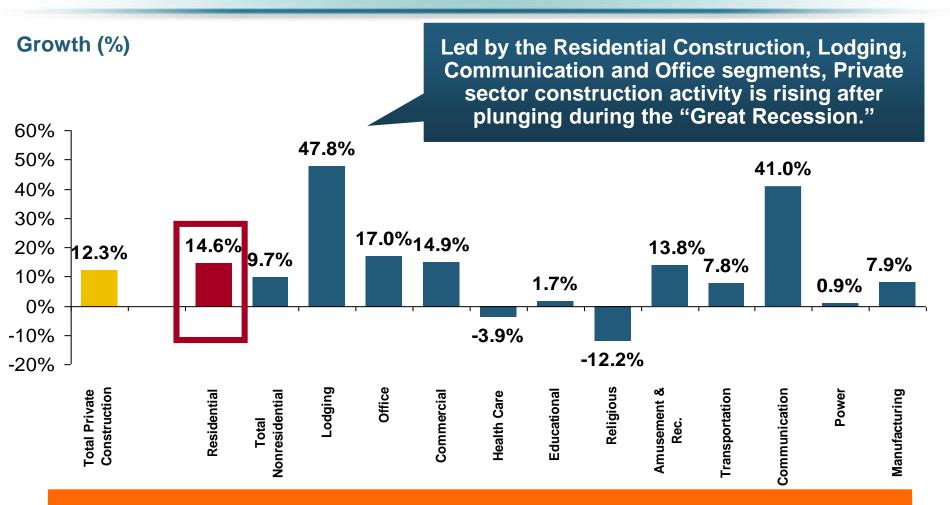


Overall Construction Activity is Up, But Growth Is Almost Entirely in the Private Sector as State/Local Government Budget Woes Continue

^{*}seasonally adjusted Source: U.S. Census Bureau, http://www.census.gov/construction/c30/c30index.html; Insurance Information Institute.

Value of Private Construction Put in Place, by Segment, Jan. 2014 vs. Jan. 2013*



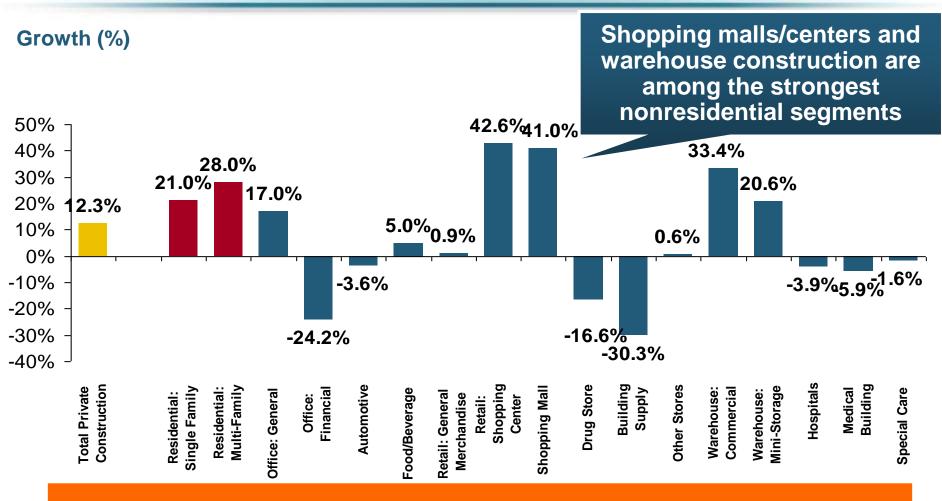


Private Construction Activity is Up in Most Segments, Including the Key Residential Construction Sector; Bodes Well for Early 2014

^{*}seasonally adjusted
Source: U.S. Census Bureau, http://www.census.gov/construction/c30/c30index.html; Insurance Information Institute.

Private Construction by Segment/Project Type, Jan. 2014 vs. Jan. 2013*



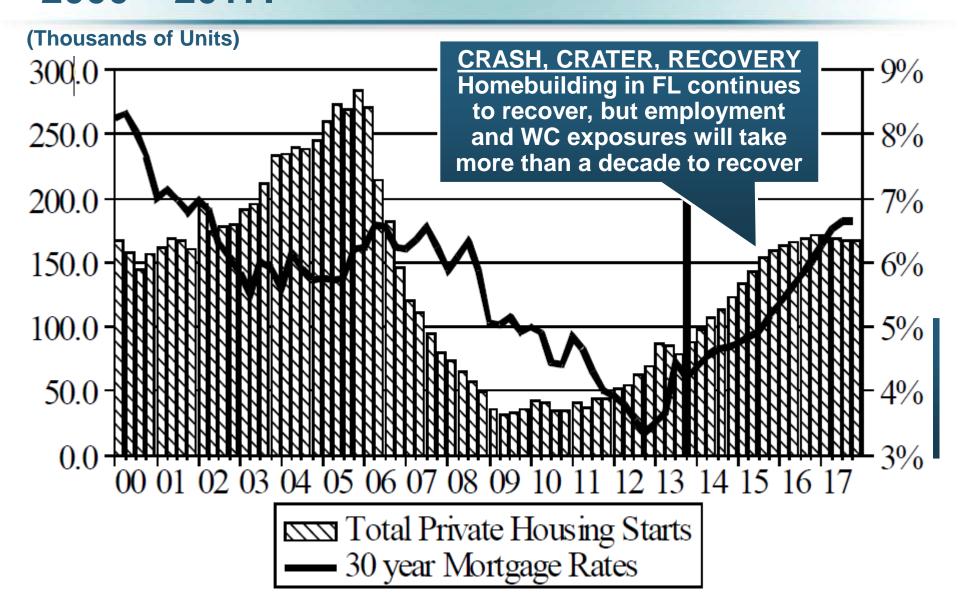


Private Construction Activity is Up in Many Segments, Including the Key Residential Construction Sector, But Down in a Few

^{*}seasonally adjusted Source: U.S. Census Bureau, http://www.census.gov/construction/c30/c30index.html; Insurance Information Institute.

Florida Total Private Housing Starts, 2000 – 2017F





Value of New Federal, State and Local Government Construction: 2003-2013*



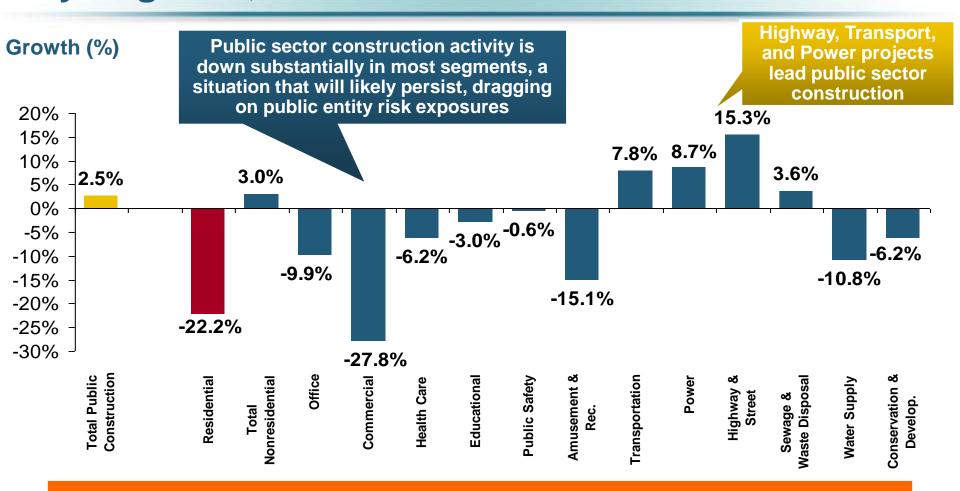


Government Construction Spending Peaked in 2009, Helped by Stimulus Spending, but Continues to Contract As State/Local Governments Grapple with Deficits and Federal Sequestration Takes Hold

^{*2013} figure is a seasonally adjusted annual rate as of December. Sources: US Department of Commerce; Insurance Information Institute.

Value of Public Construction Put in Place, by Segment, Jan. 2014 vs. Jan. 2013*



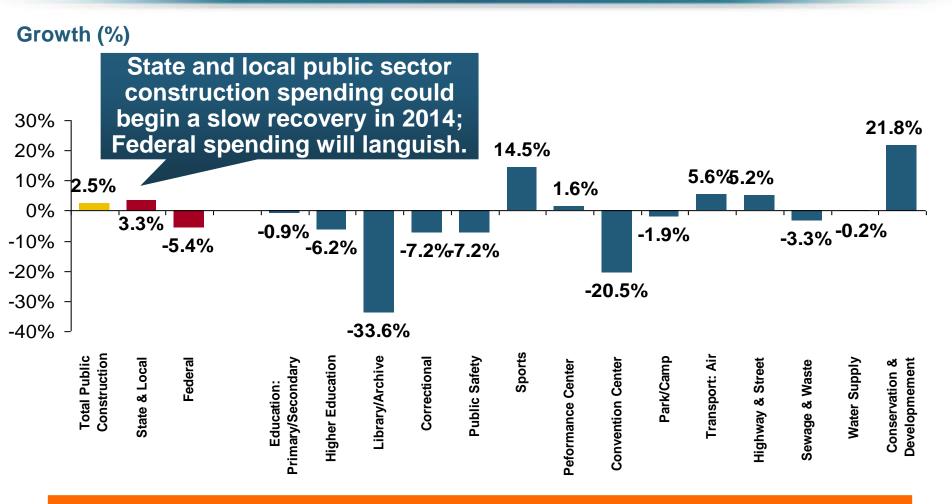


Public Construction Activity is Down in Many Segments as State and Local Budgets Remain Under Stress; Improvement Possible in 2014.

^{*}seasonally adjusted Source: U.S. Census Bureau, http://www.census.gov/construction/c30/c30index.html; Insurance Information Institute.

Public Construction by Segment/Project Type, Jan. 2014 vs. Jan. 2013*



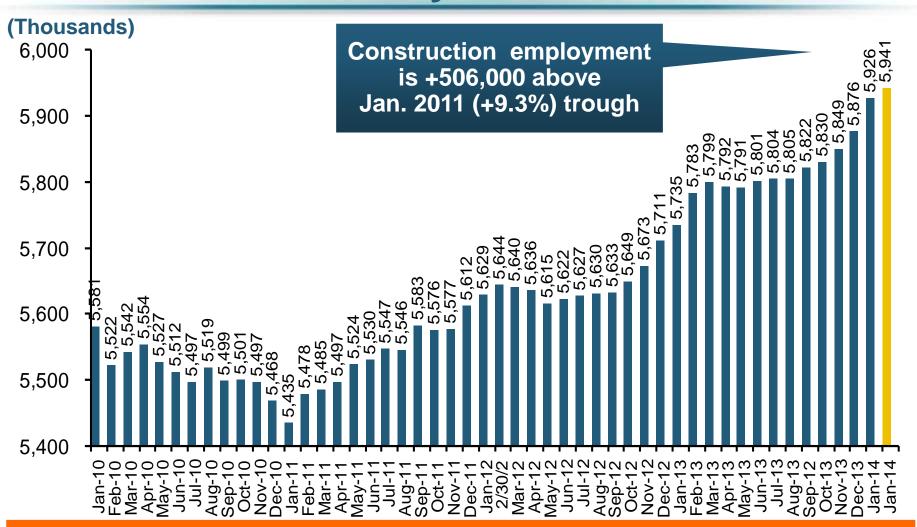


Public Construction Activity is Down in Most Segments as Governments
Grapple with Budget Deficits and Pension Shortfalls

^{*}seasonally adjusted Source: U.S. Census Bureau, http://www.census.gov/construction/c30/c30index.html; Insurance Information Institute.

Construction Employment, Jan. 2010—February 2014*



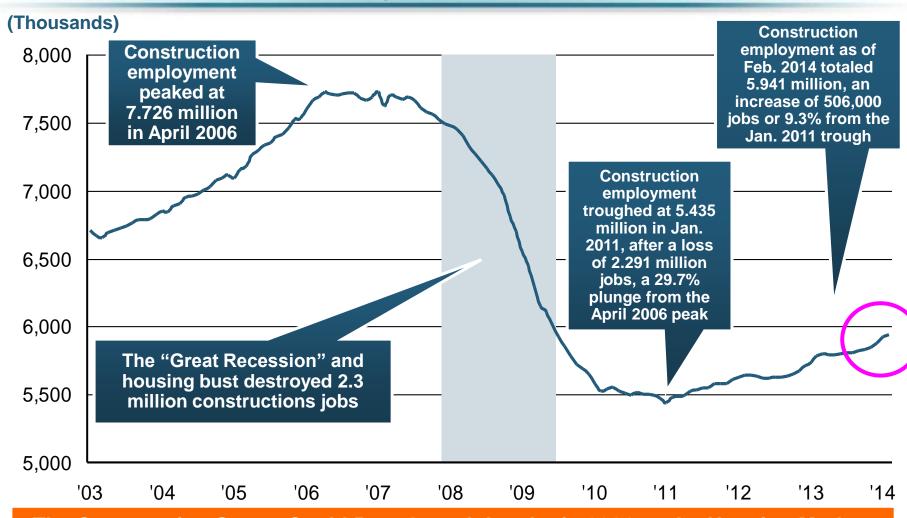


Construction and manufacturing employment constitute 1/3 of all payroll exposure.

^{*}Seasonally adjusted.

Construction Employment, Jan. 2003–February 2014





The Construction Sector Could Be a Growth Leader in 2014 as the Housing Market, Private Investment and Govt. Spending Recover. WC Insurers Will Benefit.

Note: Recession indicated by gray shaded column.

Sources: U.S. Bureau of Labor Statistics; Insurance Information Institute.

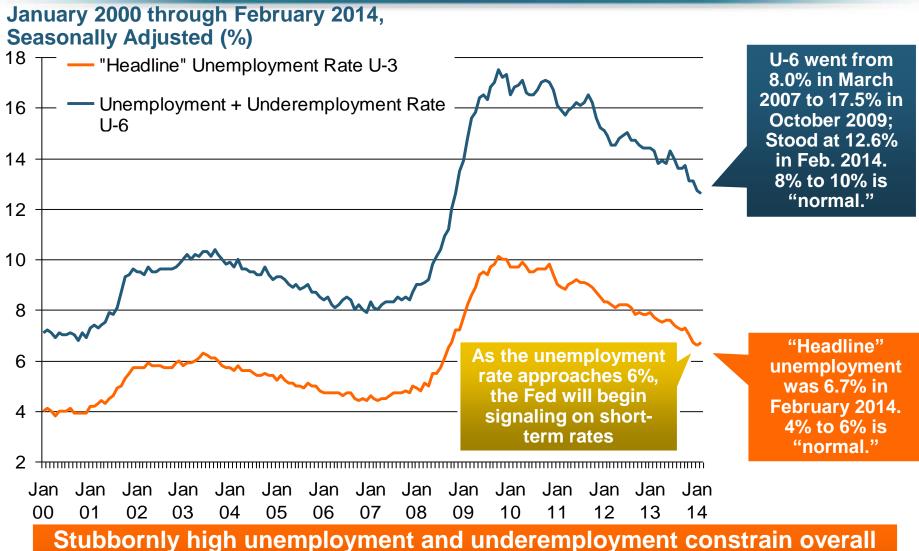


The New American Labor Force

The Recovery's Winners and Losers Are Reshaping the Sources of WC's Payroll Exposure Base

Unemployment and Underemployment Rates: Still Too High, But Falling

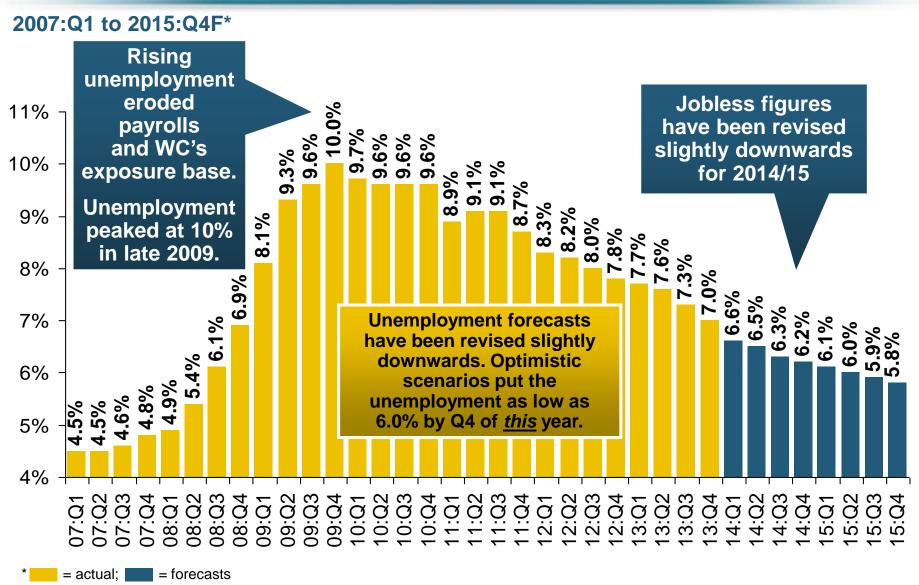




Stubbornly high unemployment and underemployment constrain overal economic growth, but the job market is now clearly improving.

US Unemployment Rate Forecast

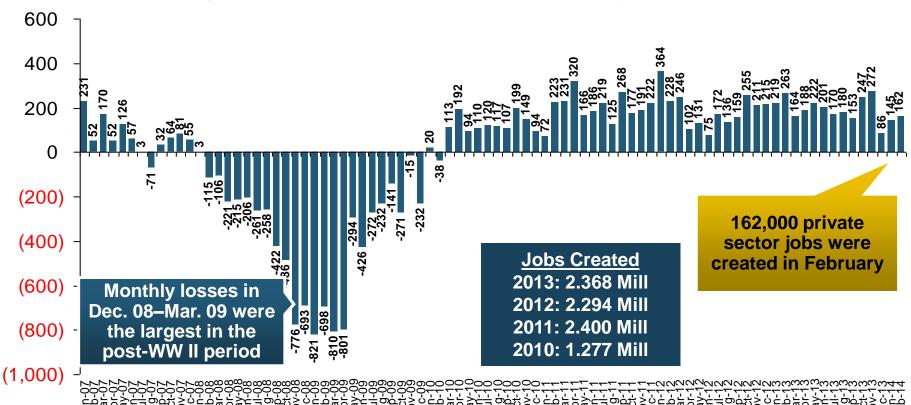




Monthly Change in Private Employment



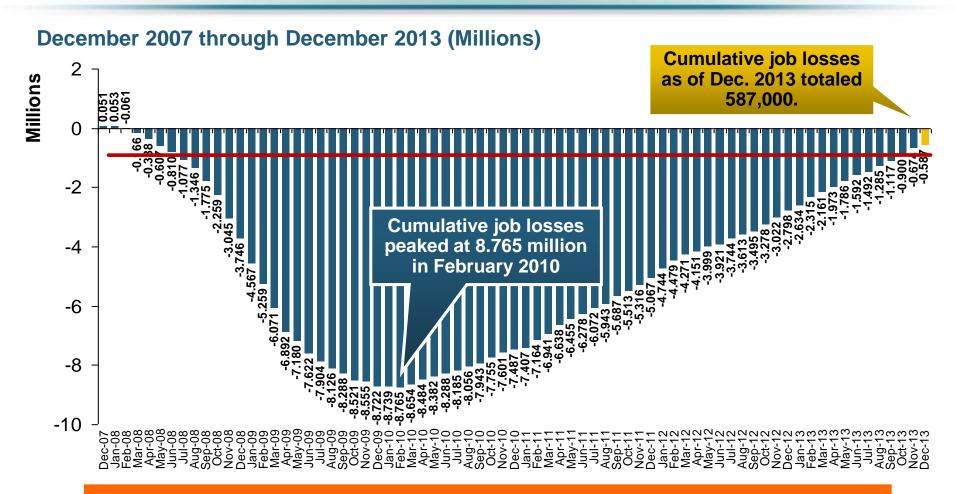




Private Employers Added 8.34 million Jobs Since Jan. 2010 After Having Shed 5.01 Million Jobs in 2009 and 3.76 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)

Cumulative Change in Private Employment: Dec. 2007—Dec. 2013



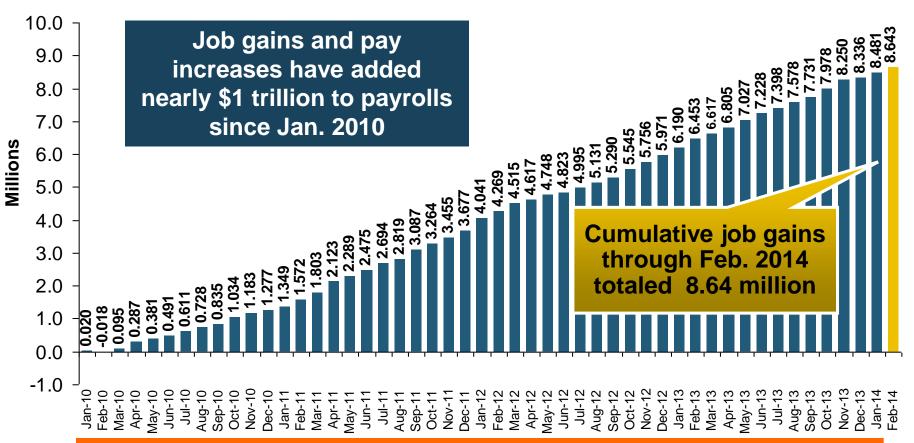


Private Employers Added 8.14 million Jobs Since Jan. 2010 After Having Shed 4.98 Million Jobs in 2009 and 3.80 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)

Cumulative Change in Private Sector Employment: Jan. 2010—Feb. 2014



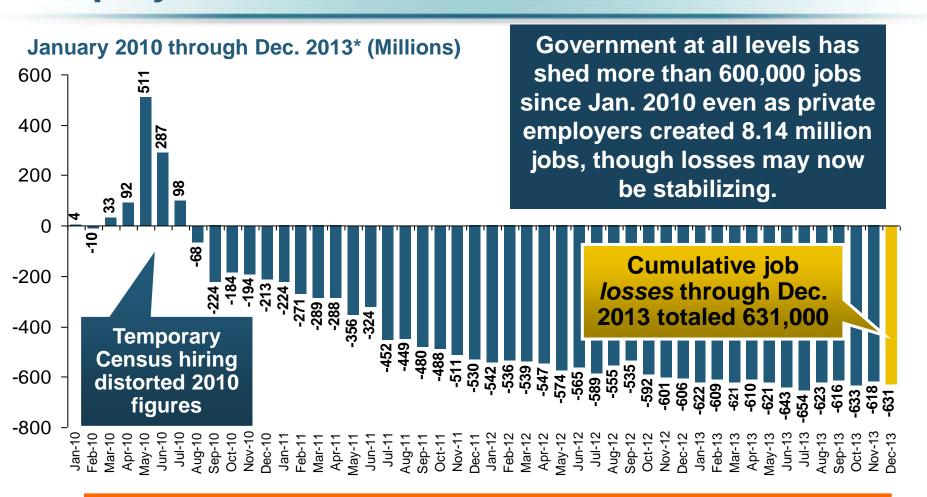
January 2010 through February 2014* (Millions)



Private Employers Added 8.64 million Jobs Since Jan. 2010 After Having Shed 4.98 Million Jobs in 2009 and 3.80 Million in 2008 (State and Local Governments Have Shed Hundreds of Thousands of Jobs)

Cumulative Change in Government Employment: Jan. 2010—Dec. 2013

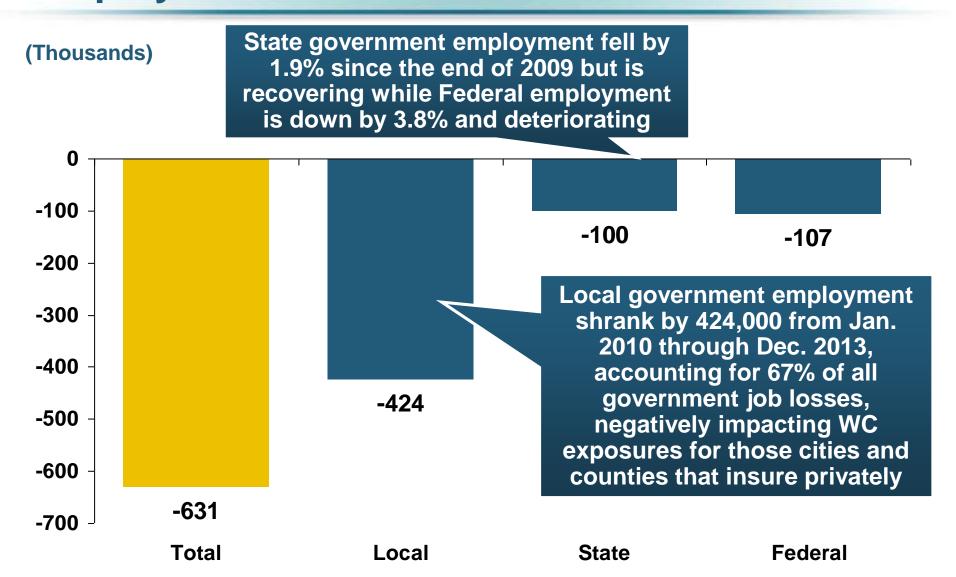




Governments at All Levels are Under Severe Fiscal Strain As Tax Receipts Plunged and Pension Obligations Soared During the Financial Crisis: Sequestration Will Add to this Toll

Net Change in Government Employment: Jan. 2010—Dec. 2013*



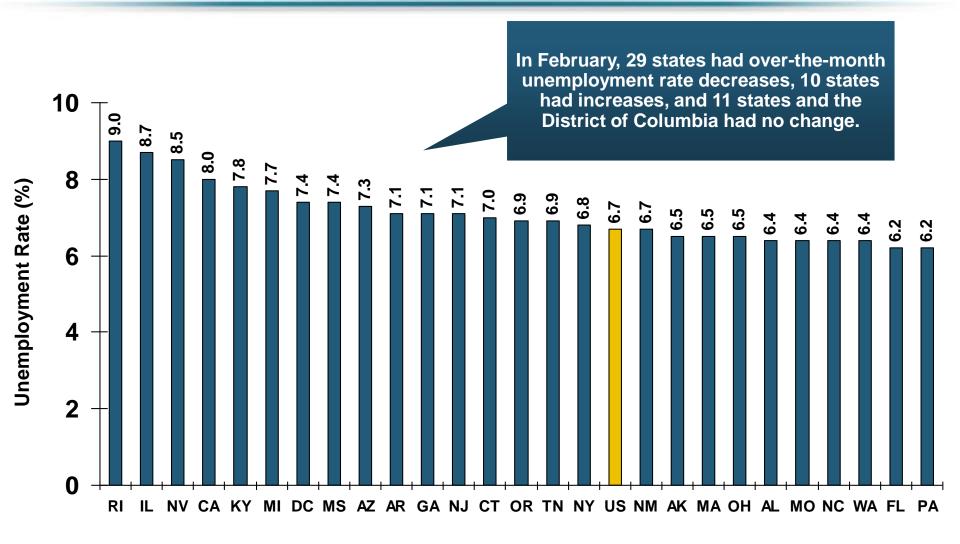


^{*}Cumulative change from prior month; Base employment date is Dec. 2009.

Source: US Bureau of Labor Statistics http://www.bls.gov/data/#employment; Insurance Information Institute

Unemployment Rates by State, February 2014: 777 INSU **Highest 25 States***



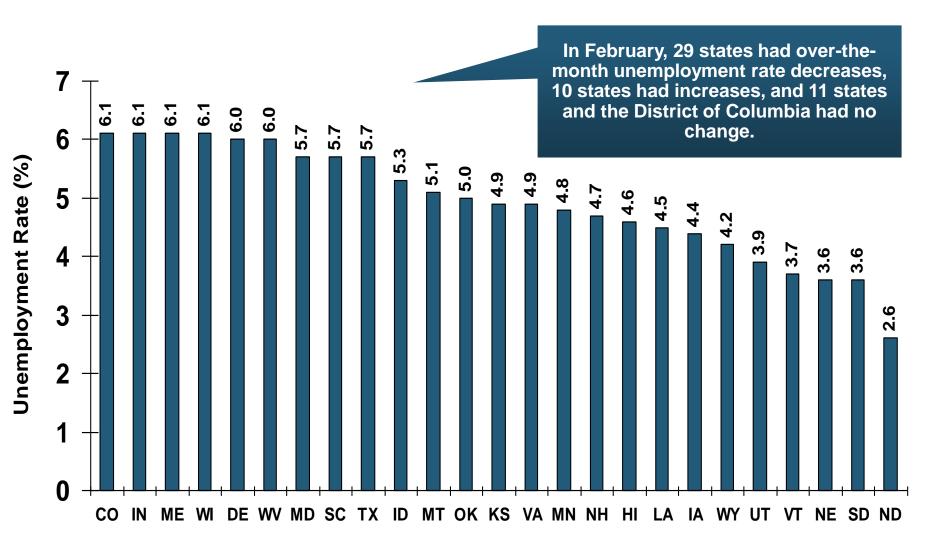


^{*}Provisional figures for February 2014, seasonally adjusted.

Sources: US Bureau of Labor Statistics; Insurance Information Institute.

Unemployment Rates by State, February 2014: Lowest 25 States*

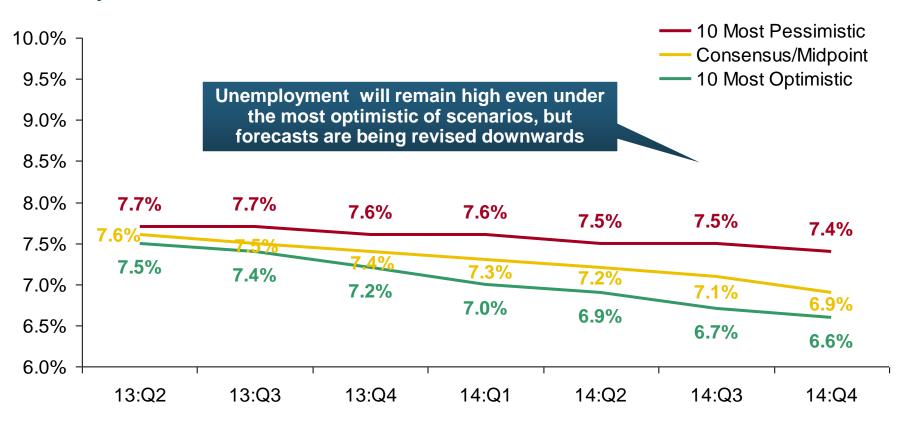




US Unemployment Rate Forecasts

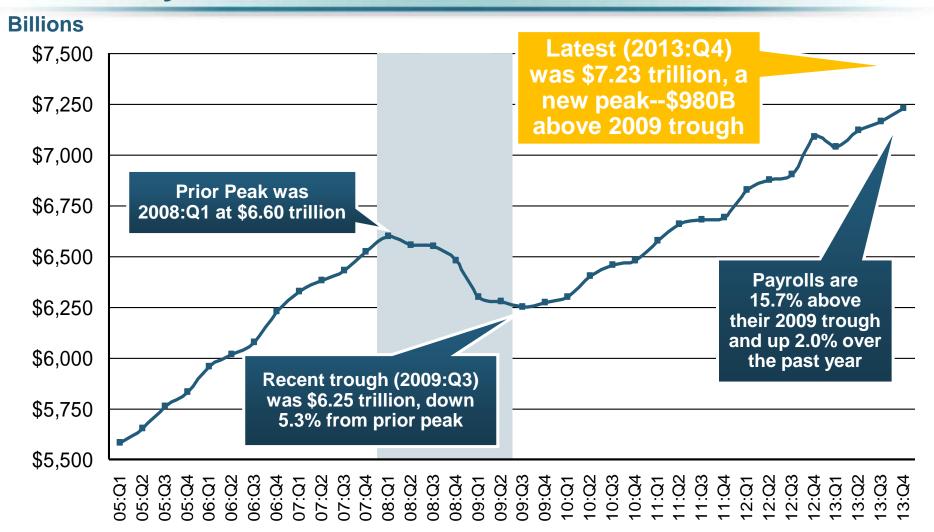


Quarterly, 2013:Q1 to 2014:Q4



Nonfarm Payroll (Wages and Salaries): Quarterly, 2005–2013:Q4



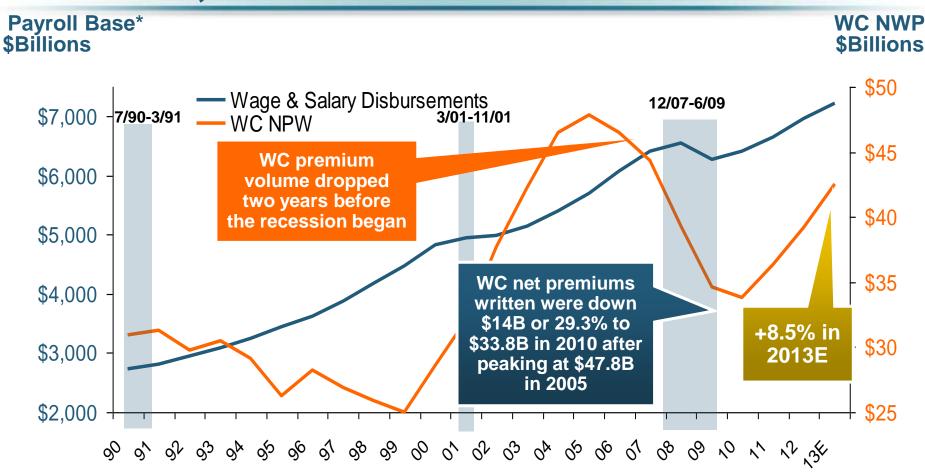


Note: Recession indicated by gray shaded column. Data are seasonally adjusted annual rates.

Sources: http://research.stlouisfed.org/fred2/series/WASCUR; National Bureau of Economic Research (recession dates); Insurance Information Institute.

Payroll vs. Workers Comp Net Written Premiums, 1990-2013E



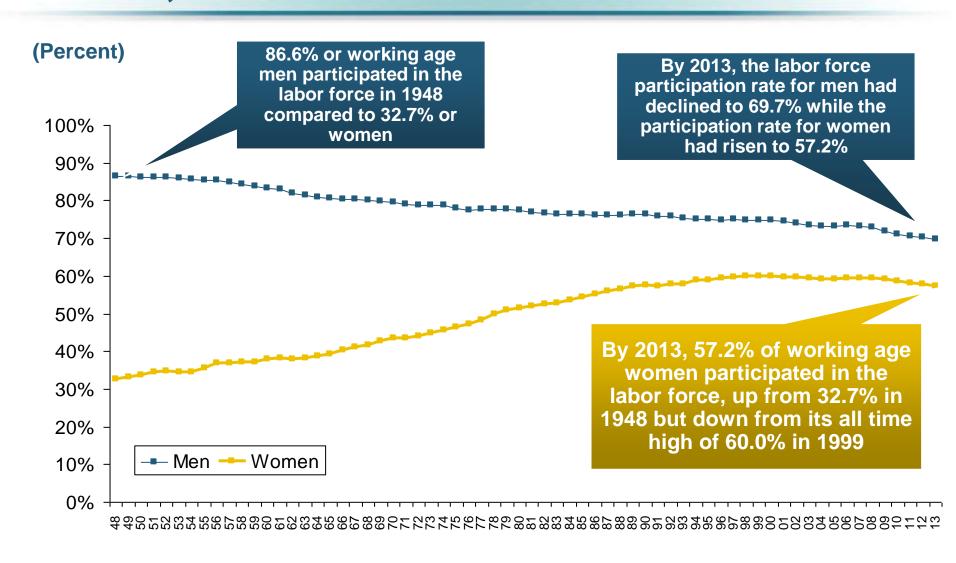


Continued Payroll Growth and Rate Increases Suggest WC NWP Will Grow Again in 2014; +8.6% Growth Estimated for 2013

^{*}Private employment; Shaded areas indicate recessions. WC premiums for 2012 are I.I.I. estimate based YTD 2013 actuals. Sources: NBER (recessions); Federal Reserve Bank of St. Louis at http://research.stlouisfed.org/fred2/series/WASCUR; NCCI; I.I.I.

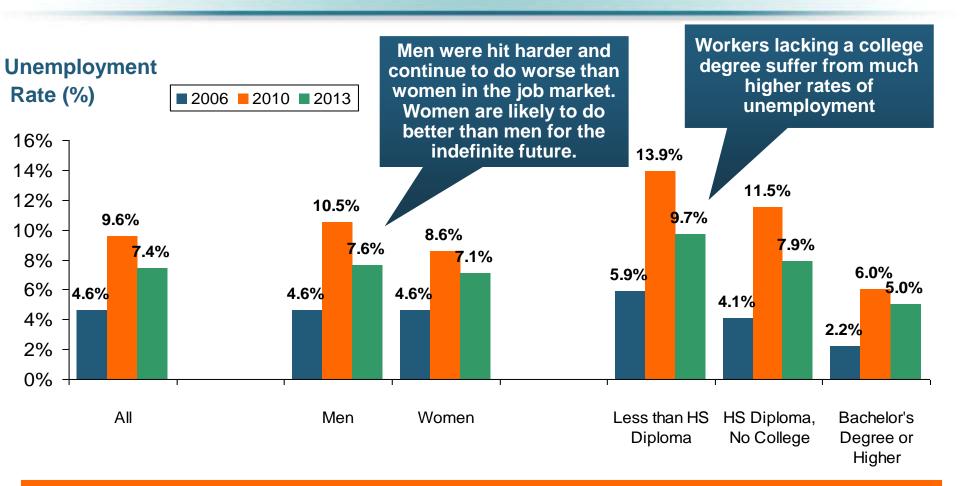
Labor Force Participation Rate by Gender, 1948—2013





Labor Force Participation by Sex and Education through the Crisis: 2006, 2010 and 2013

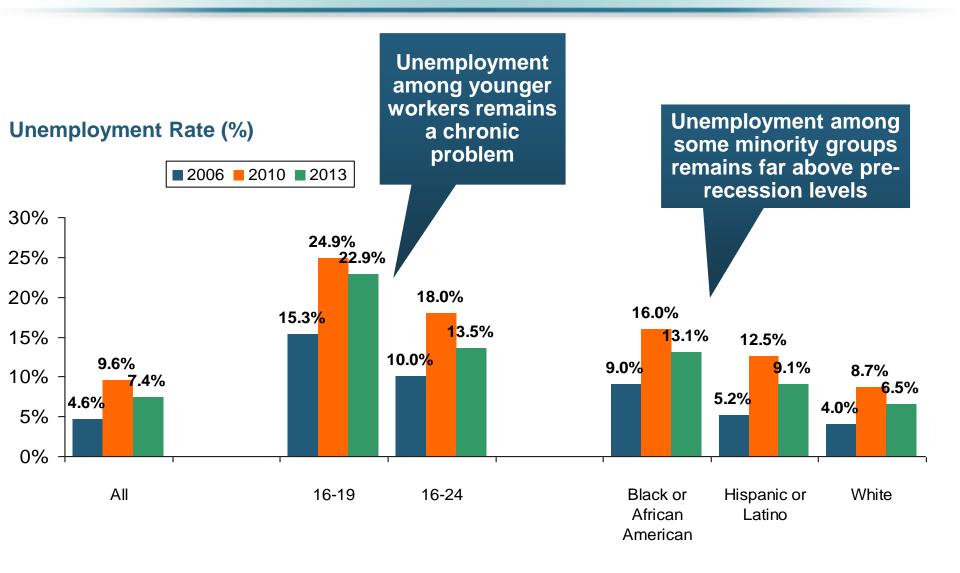




The composition and character of the U.S. labor force is changing rapidly. Winners and losers have clearly emerged. What does this mean for WC?

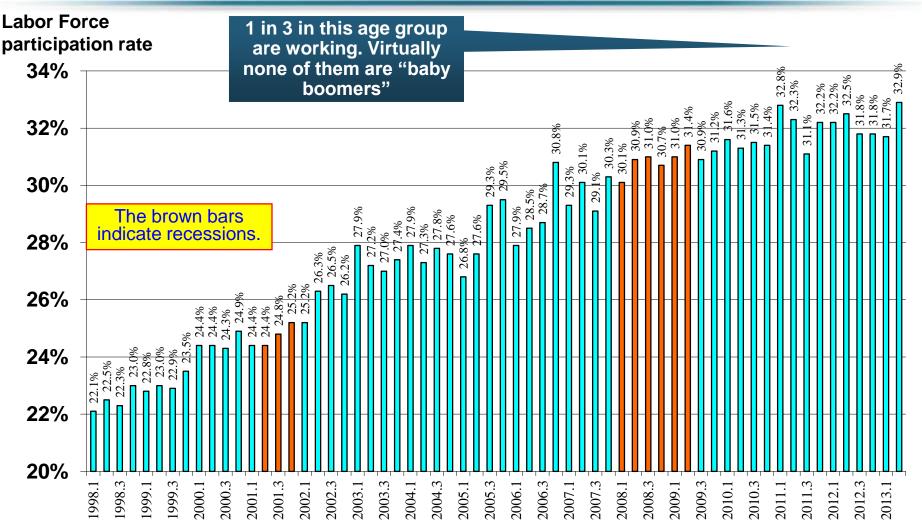
Unemployment Rates by Age and Race: 2006, 2010 and 2013





Labor Force Participation Rate, Ages 65-69, Quarterly, 1998:Q1-2013:Q2

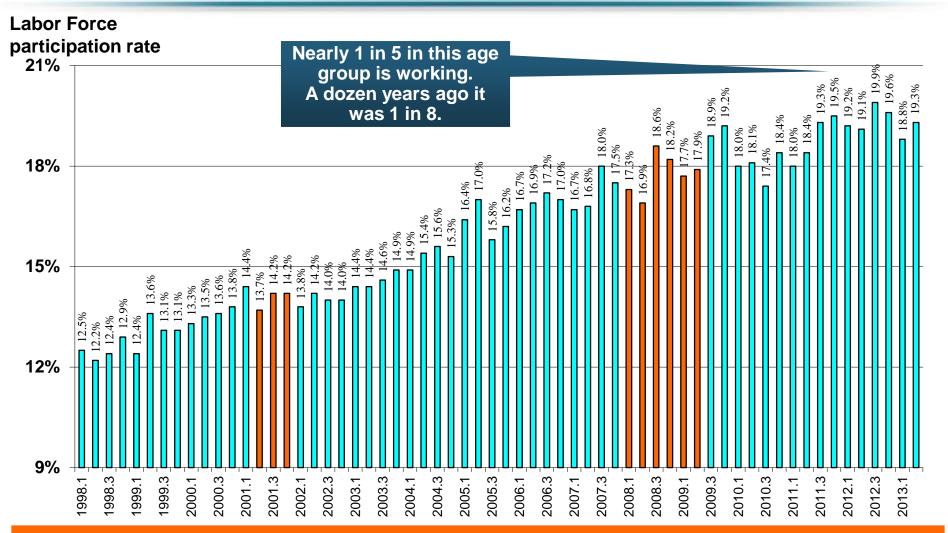




The labor force participation rate for workers 65-69 might grow even faster in the future as seniors find they can't fully retire on their meager retirement savings.

Labor Force Participation Rate, Ages 70-74, Quarterly, 1998:Q1-2013:Q2





The labor force participation rate for workers 70-74 grew by about 50% since 1998. Growth stalled during and after the Great Recession but has since resumed.

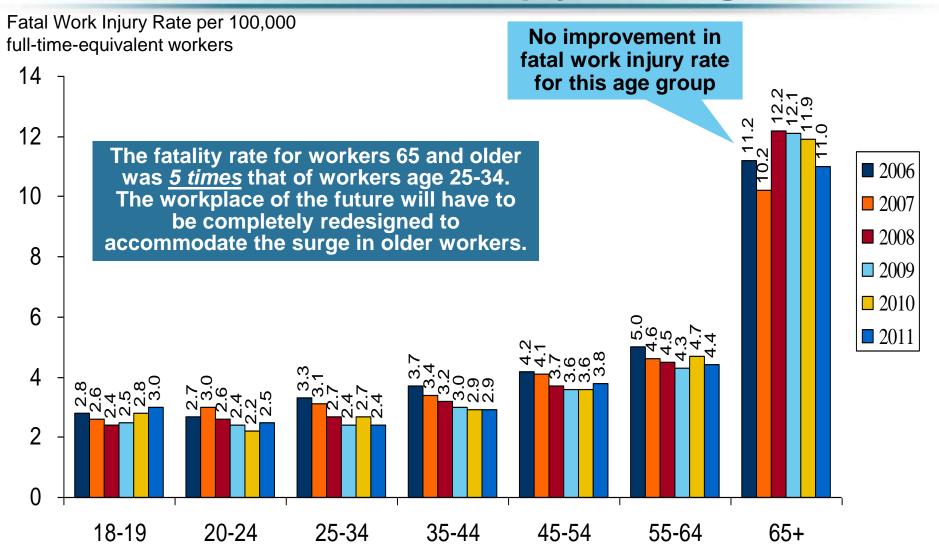
Source: US Bureau of Labor Statistics, US Department of Labor; Insurance Information Institute.



The Aging Workforce

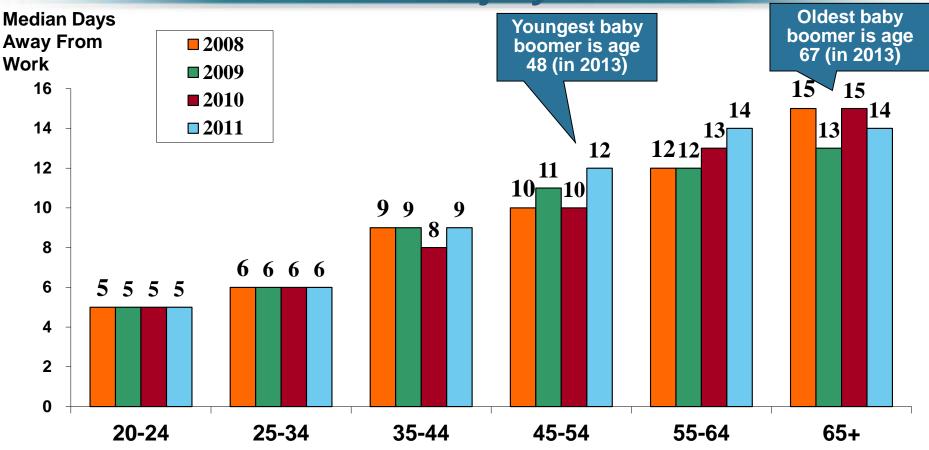
Fatality Rates Improved Slightly Since 2006 but Still Climb Sharply With Age





Older Workers Lose More Days from Work Due to Injury or Illness



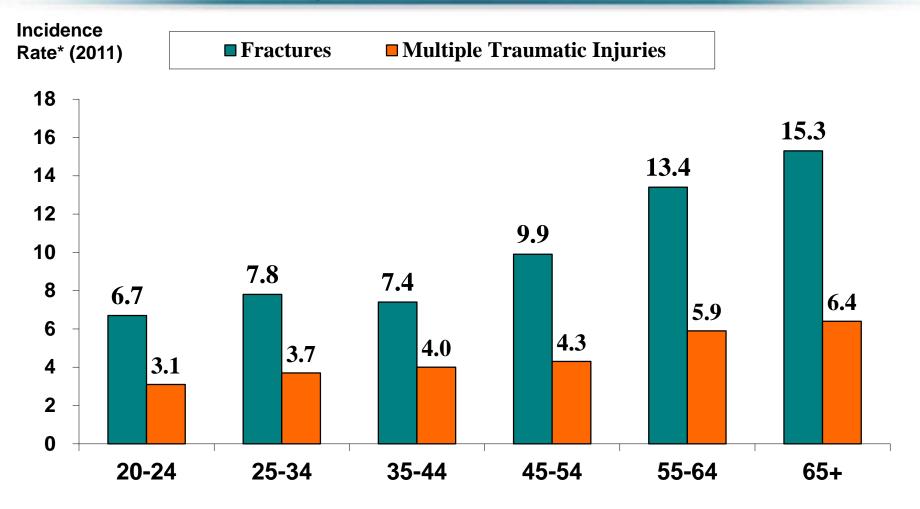


Median lost time of workers age 65+ is 2-3X that of workers age 25-34

Source: US Bureau of Labor Statistics, *Nonfatal Occupational Injuries and Illnesses Requiring Days Away From Work, 2011* (Table 10), released November 8, 2012.

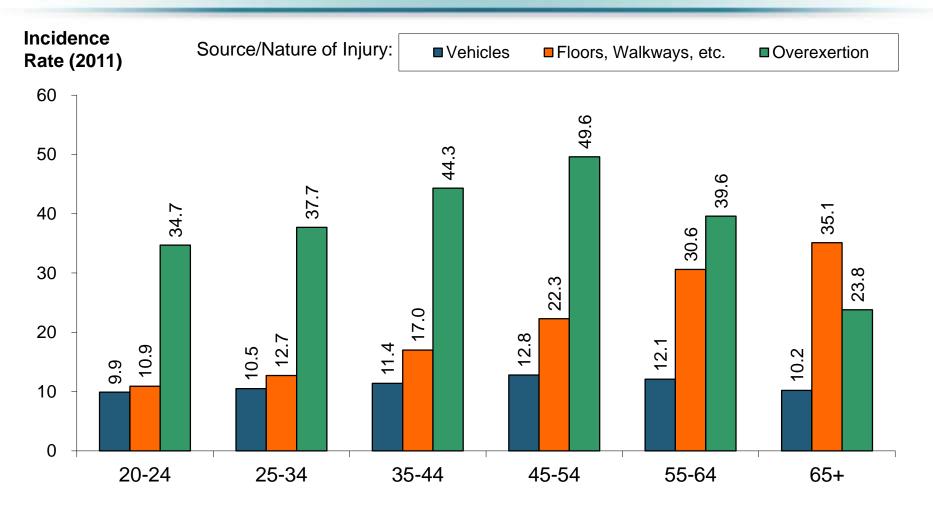
Older Workers Are Much More Likely to Break a Bone





Older Workers Are More Likely to Slip When Walking, but Less Likely to Overexert Themselves







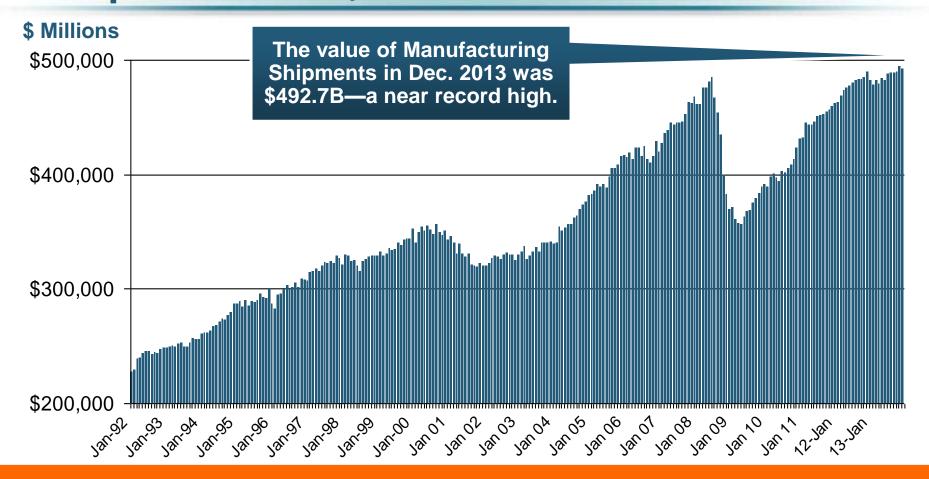
The Reindustrialization of America

American Industrial Might Is Making a Comeback

A Golden Opportunity for Workers Comp Insurers?

Dollar Value* of Manufacturers' Shipments Monthly, Jan. 1992—Dec. 2013



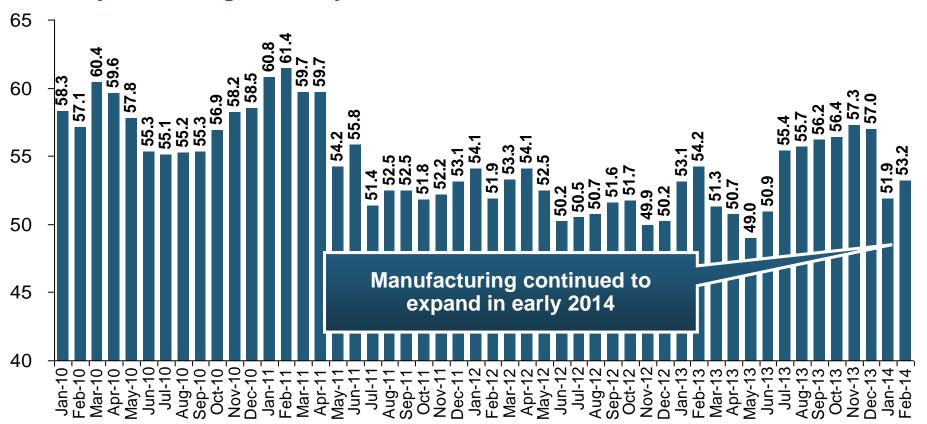


Monthly shipments in Dec. 2013 exceeded the pre-crisis (July 2008) peak. Manufacturing is energy-intensive and growth leads to gains in many commercial exposures: WC, Commercial Auto, Marine, Property, and various Liability Coverages.

ISM Manufacturing Index (Values > 50 Indicate Expansion)



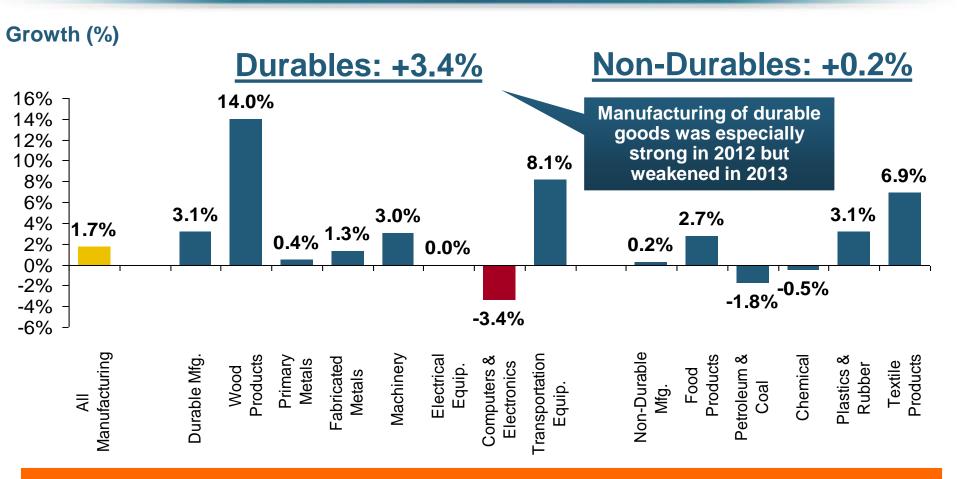
January 2010 through February 2014



The manufacturing sector expanded for 48 of the 50 months from Jan. 2010 through February 2014. Weakness in early 2014 stems largely from harsh winter weather and weakness in China.

Manufacturing Growth for Selected Sectors, 2013 vs. 2012*



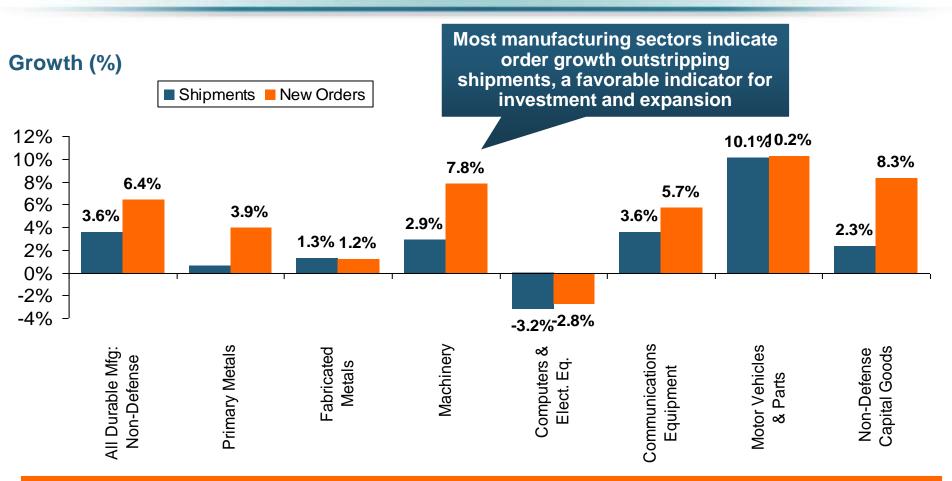


Manufacturing Is Expanding—Albeit Slowly—Across a Number of Sectors that Will Contribute to Growth in Insurable Exposures Including: WC, Commercial Property, Commercial Auto and Many Liability Coverages

^{*}Seasonally adjusted; Date are YTD comparing data through November 2013 to the same period in 2012. Source: U.S. Census Bureau, *Full Report on Manufacturers' Shipments, Inventories, and Orders,* http://www.census.gov/manufacturing/m3/

Durable Manufacturing: New Order Growth and Shipments, 2013



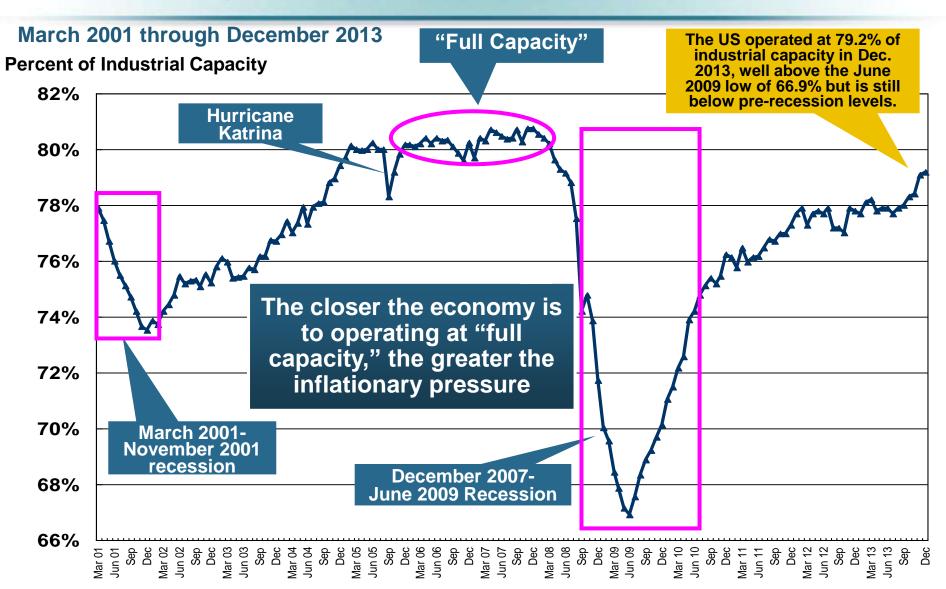


Manufacturing Is Expanding: New orders exceed shipments which suggests the industry is in an expansionary phase

^{*}Seasonally adjusted; Date are advance report YTD data comparing data through December 2013 to the same period in 2012. Source: U.S. Census Bureau, Full Report on Manufacturers' Shipments, Inventories, and Orders, http://www.census.gov/manufacturing/m3/

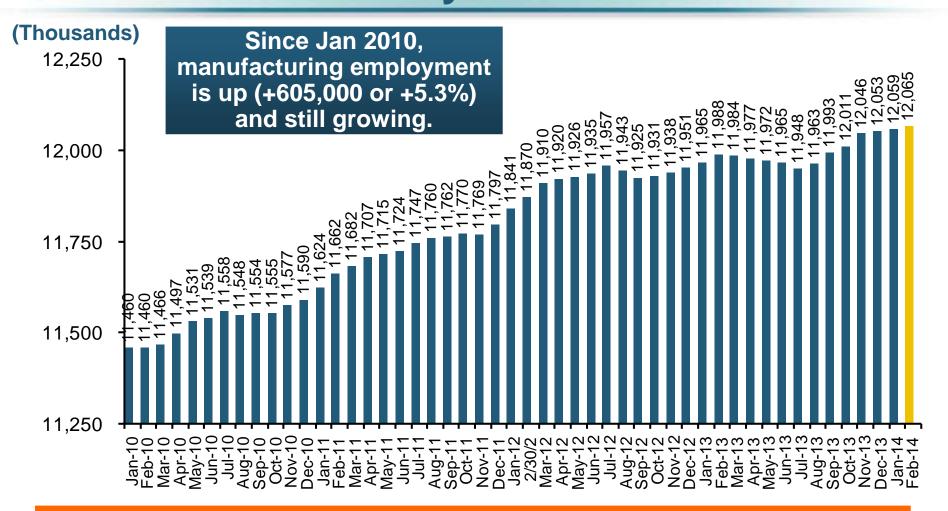
Recovery in Capacity Utilization is a Positive Sign for Commercial Exposures





Manufacturing Employment, Jan. 2010—February 2014*



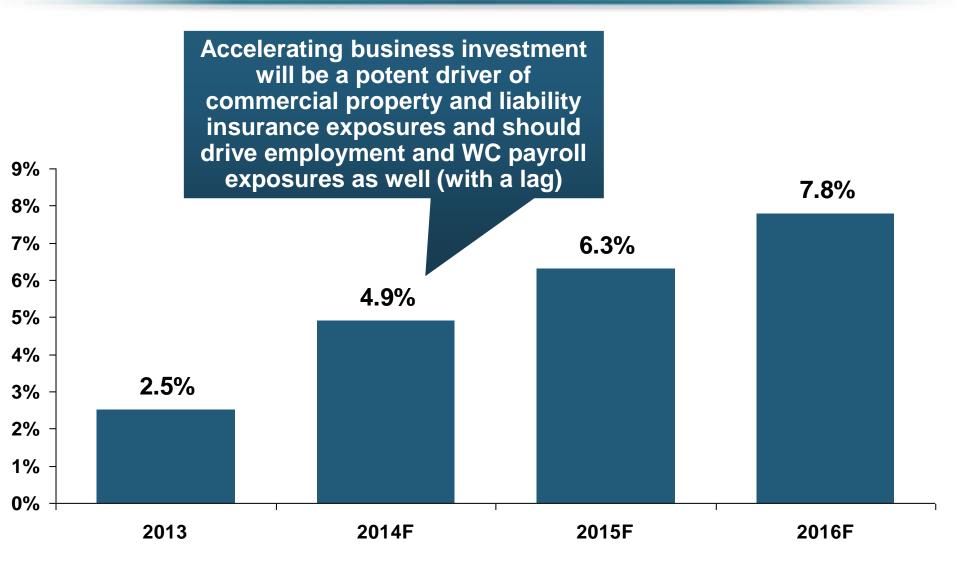


Manufacturing employment is a surprising source of strength in the economy. Employment in the sector is at a multi-year high.

^{*}Seasonally adjusted; Jan. and Feb. 2014 are preliminary
Sources: US Bureau of Labor Statistics at http://data.bls.gov; Insurance Information Institute.

Business Investment: Expected to Accelerate, Fueling Commercial Exposure Growth

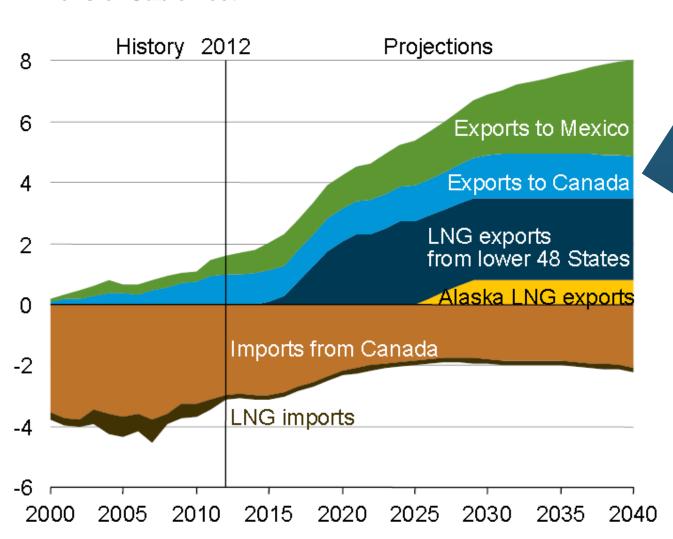




U.S. Natural Has Imports and Exports, 1990 - 2040



Trillions of Cubic Feet



The US is now the largest gas producer in the world, though Russia is the largest exporter. The US needs to invest in its pipeline and LNG infrastructure and expedite regulatory approval to realize its full export potential

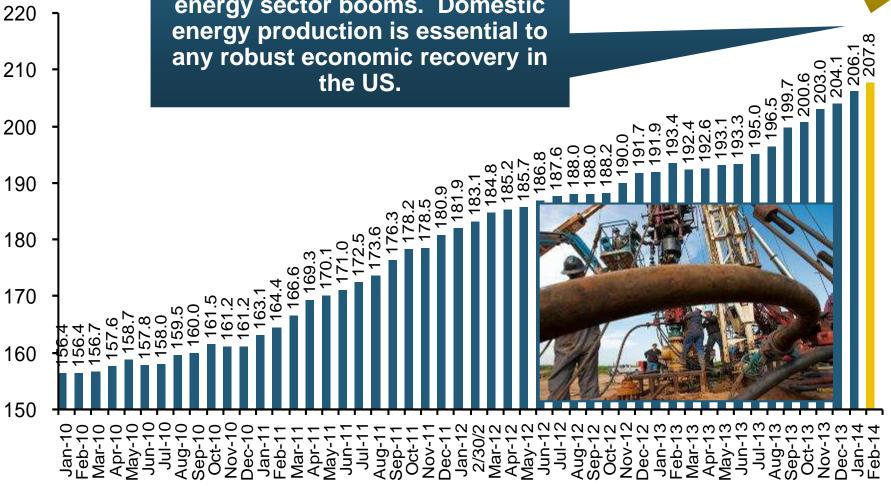
Oil & Gas Extraction Employment, Jan. 2010—Feb. 2014*





Oil and gas extraction employment is up 32.9% since Jan. 2010 as the energy sector booms. Domestic energy production is essential to any robust economic recovery in

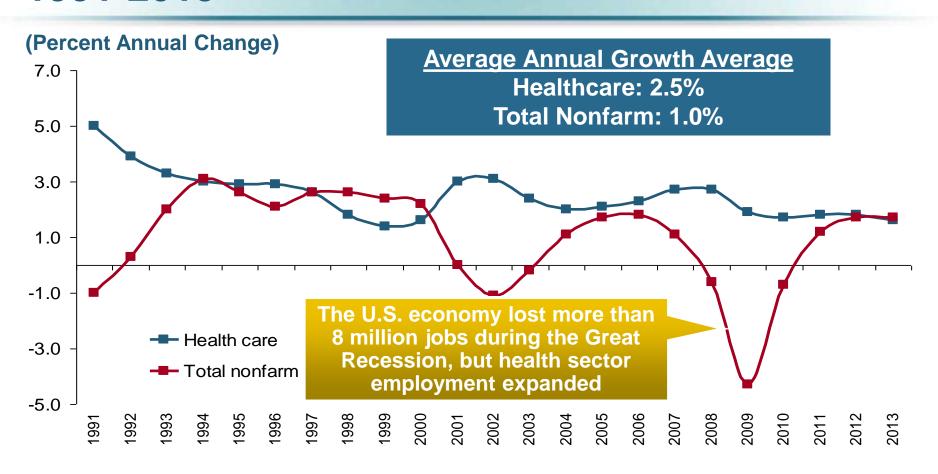
Highest since Aug. 1986



^{*}Seasonally adjusted

Growth in Health Professions, 1991-2013

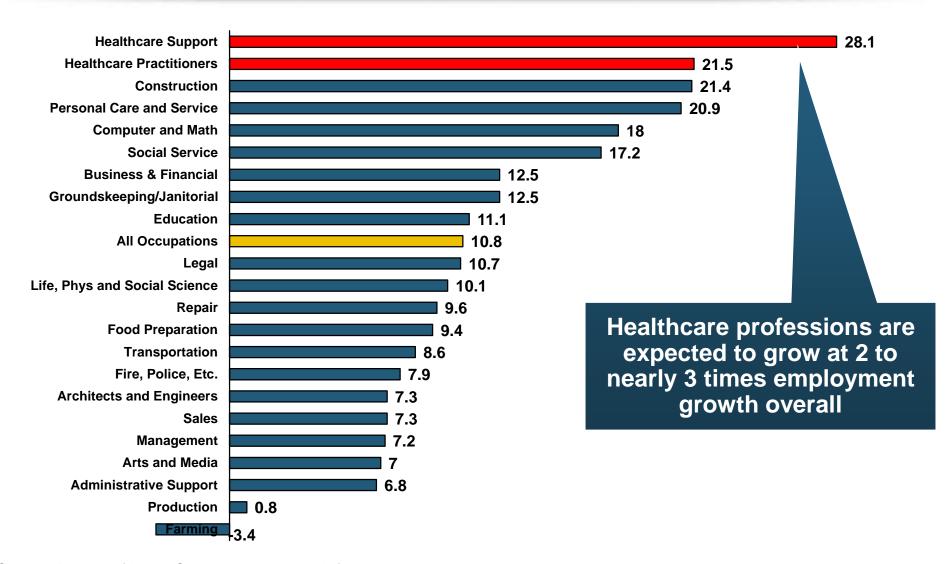




Healthcare employment has continued to grow in good times and bad - including the Great Recession.

Occupations Ranked by Projected Percentage Growth, 2012-2022F (Millions)





Source: Bureau of Labor Statistics, Insurance Information Institute.

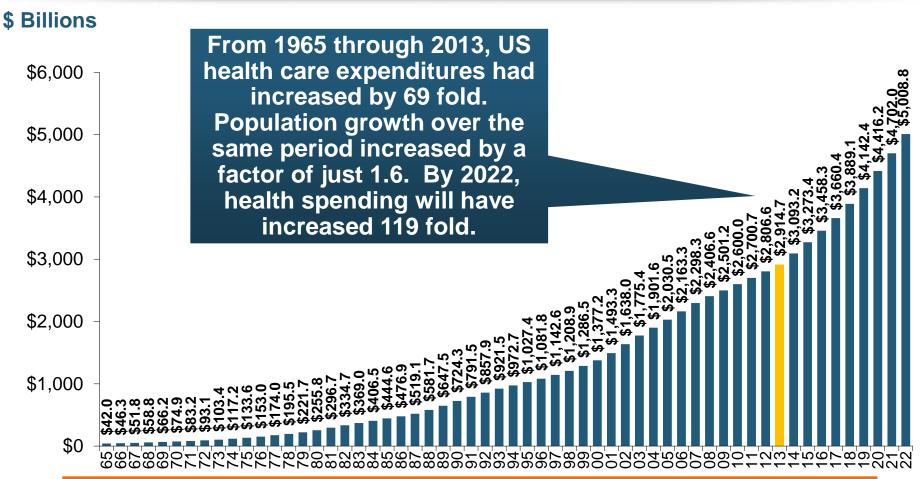


The Future of Healthcare in America

Workers Comp Is Increasingly Along for the Ride in the American Health Care Saga

U.S. Health Care Expenditures, 1965–2022F



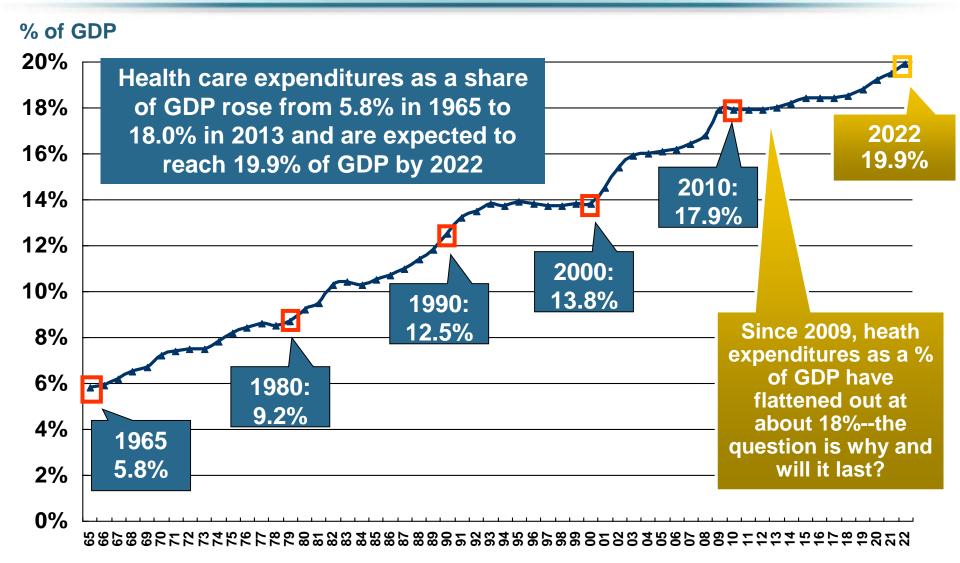


U.S. health care expenditures have been on a relentless climb for most of the past half century, far outstripping population growth, inflation of GDP growth

Sources: Centers for Medicare & Medicaid Services, Office of the Actuary at <a href="http://www.cms.gov/Research-Statistics-Data-and-Systems/S

National Health Care Expenditures as a Share of GDP, 1965 – 2022F*

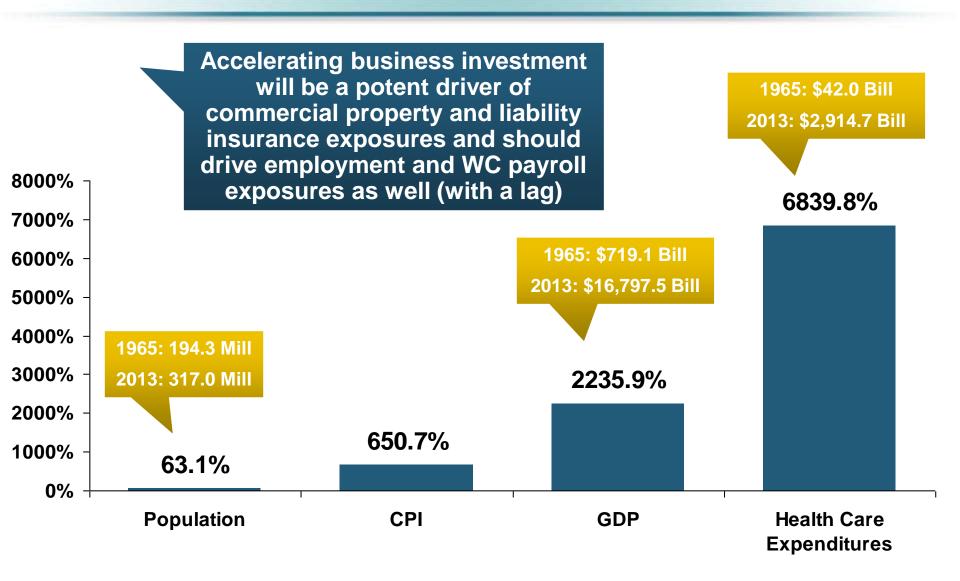




Sources: Centers for Medicare & Medicaid Services, Office of the Actuary at http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsProjected.html accessed 3/14/14; Insurance Information Institute.

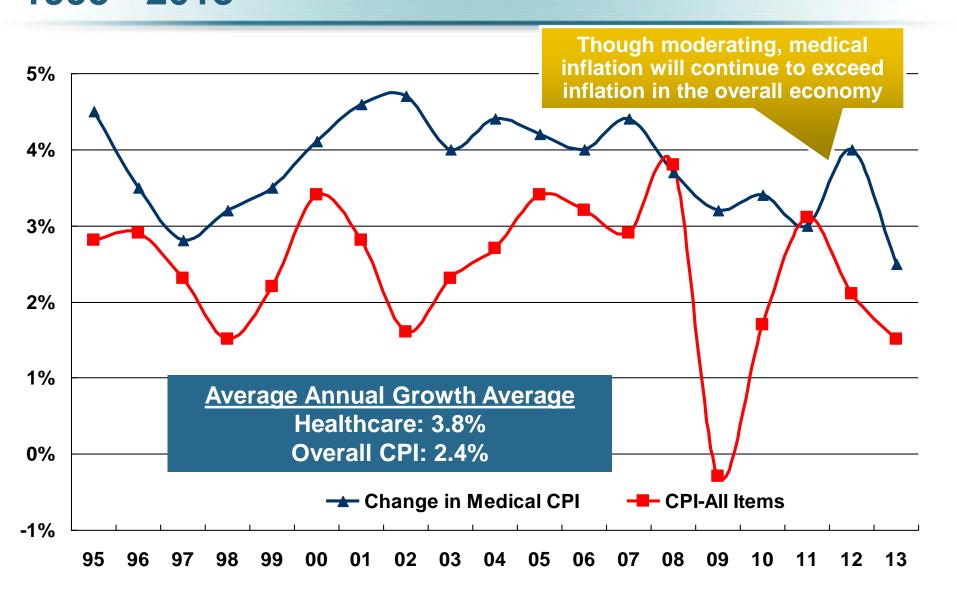
Rate of Health Care Expenditure Increase Compared to Population, CPI and GDP





Medical Cost Inflation vs. Overall CPI, 1995 - 2013



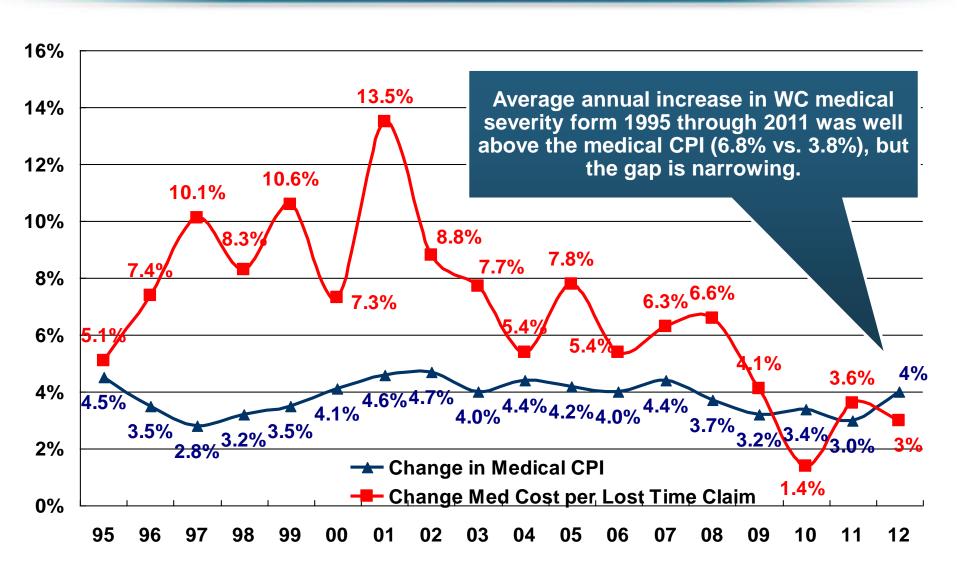




Possible Effects of the Affordable Care Act ("ObamaCare") on Workers Compensation

WC Medical Severity Generally Outpaces the Medical CPI Rate





A Few Potential Impacts of the ACA on Workers Compensation



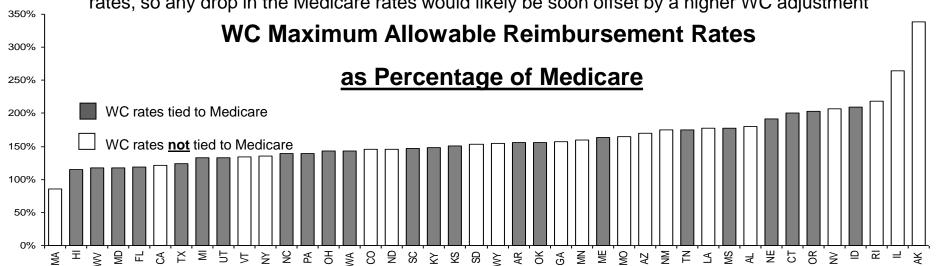
Issue	Concern	Contravening Argument
Surge in People Covered by Health Insurance	 System is overwhelmed MD shortage Patient care adversely impacted 	 Over time, people will have access to preventative care, improving the general health of the population Greater use of PA's, etc.
Electronic Health Records	• Cost	Computerization of patient data could help flag issues and improve risk management and improve patient outcomes
Claim Shifting	Provider/patient may prefer claim handled via WC system	Reduction in uninsured population reduces shifting

ACA Impact on WC May Occur via Changes in Rates Set by State Regulators



- WC rates often tied to WC but can change for reasons independent of this link
- There could be both positive and negative effects of a cut in Medicare rates on WC performance in states which tie reimbursement to Medicare
 - WC reimbursement rates would go down
 - Doctors may be unwilling to see WC patients:
 - ▶ 64% of Dr.'s surveyed said they would stop accepting new Medicare patients if planned rate cuts go through; some of these same doctors may also refuse WC patients if WC rates also decrease
- These effects would likely be short lived

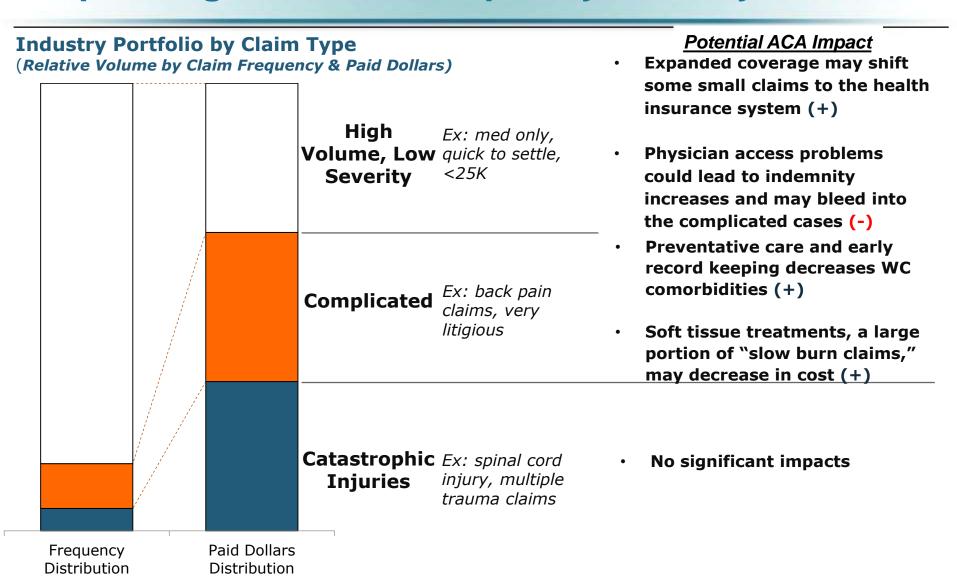
All states which tie their fee schedules to Medicare already increase the Medicare rates to set WC rates, so any drop in the Medicare rates would likely be soon offset by a higher WC adjustment



SOURCE: NCCI Annual Issues Symposium 2009, Medicare's Impact on Workers' Compensation, AMA: "Physicians' reactions to the Medicare physician payment cuts" from 3/13/13 presentation by Christopher Cunniff, FCAS, of Liberty Mutual.

PPACA May Have Distinct Impacts on WC Depending on Claim Frequency/Severity





SOURCE: Dr. Glenn Pransky, Liberty Mutual Research Institute for Health & Safety extracted from from 3/13/13 presentation by Christopher Cunniff, FCAS, of Liberty Mutual: Impacts of Healthcare Reform on Workers Compensation,

Possible Effects on Workers Comp



1. Could slow the growth in WC medical care costs

 IPAB recommendations and PCORI reports, plus Medicare changes, could have beneficial effects on cost and treatment effectiveness

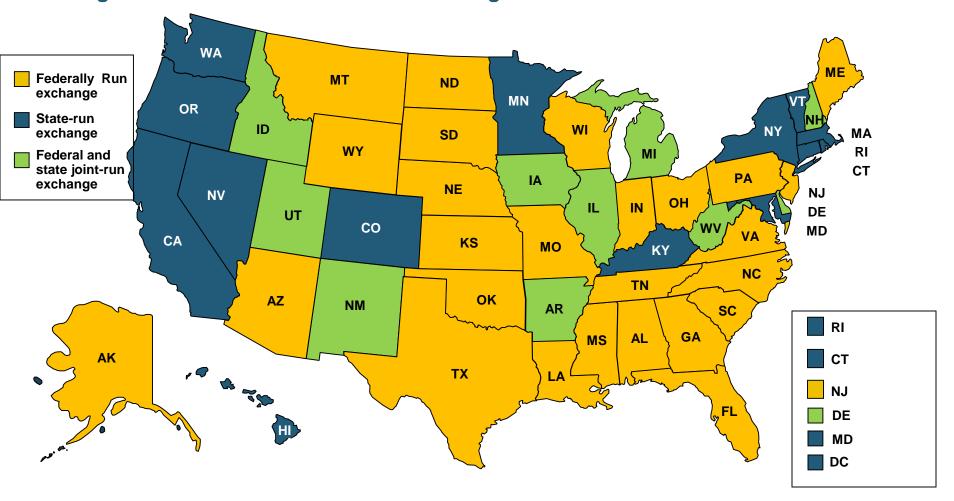
2. Could ACA be first step in federal regulation of insurance products and markets?

- Will regulation like that requiring products to be priced to meet Medical Loss Ratios be applied to WC?
- Will cost-control mechanisms such as the Independent Payment Advisory Board be developed for WC?
- Will WC insurers lose their limited exemption from anti-trust laws that they have had under McCarran-Ferguson since 1945?

States of Play | Management of Health-Insurance Exchanges & ObamaCare

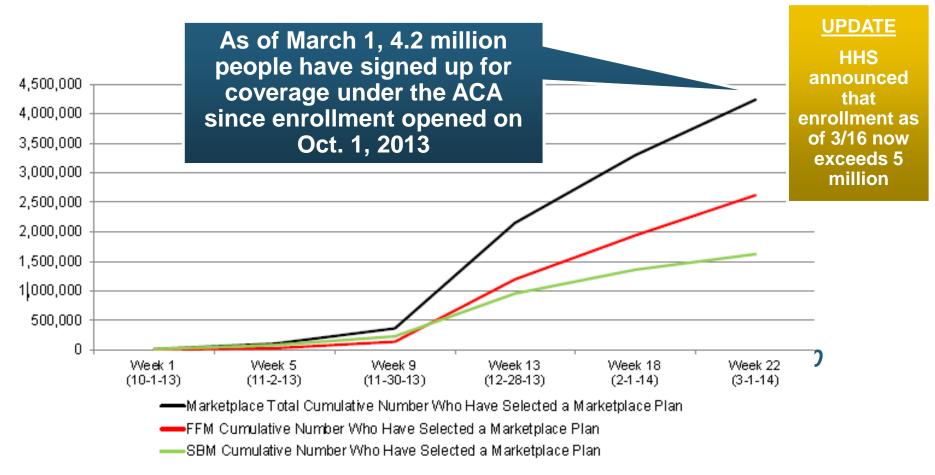


Some states are running new health-insurance exchanges on their own. Other are leaving some or all of the task to the federal government.



Number of People Signed Up for Health Care Under the ACA, Oct. 1 – March 1



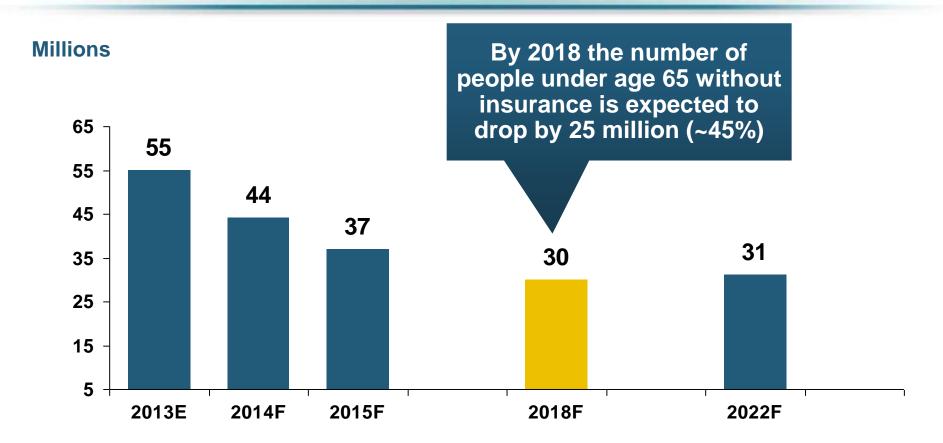


Notes: Represents cumulative monthly sums of data on the number of unique individuals who have been determined eligible to enroll in a plan through the FFM, and have selected a plan (with or without the first premium payment having been received by the issuer).

Source: Centers for Medicare and Medicaid as of March 7, 2014:

Projected Number of People with No Health Insurance, 2013—2022*





The projected decline in the uninsured population is very sensitive to the enrollment rate under the Affordable Care Act

^{*}Under age 65.



Will Skill Shortages in the Medical Field Adversely Impact WC?

Concern that the ACA Will Overwhelm the Healthcare Delivery System, Harming Outcomes

Physician Supply and Demand, 2008–2020



Year	Physician Supply (All Specialties)	Physician Demand (All Specialties)	Physician Shortage (All Specialties*)	Physician Shortage (Non-Primary Care Specialties)
2008	699,100	706,500	7,400	None
2010	709,700	723,400	13,700	4,700
2015	735,600	798,500	62,900	33,100
2020	759,800	851,300	91,500	46,100
2025	785,400	916,000	130,600	64,800

A potential large and growing physician gap looms over the next decade, with potential for users of health care

Projected Physician Supply and Demand, 2008–2020



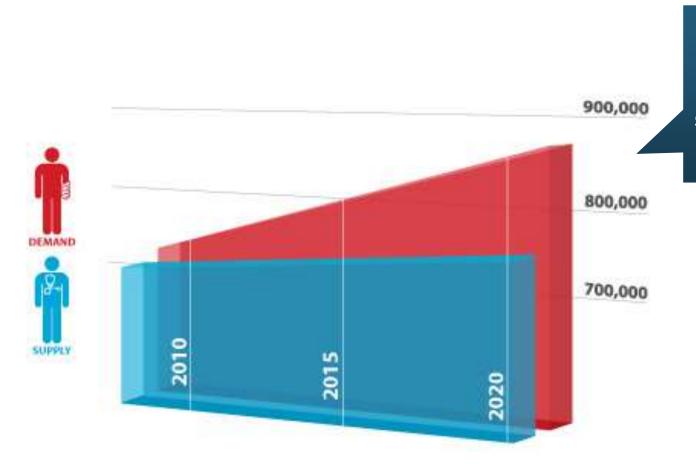


A potential large and growing shortage of physicians looms. Estimates suggest a shortage of 91,500 physicians by 2020—a gap 12% gap.

Will this be a negative for MPL?

Physician Supply and Demand, 2008–2020



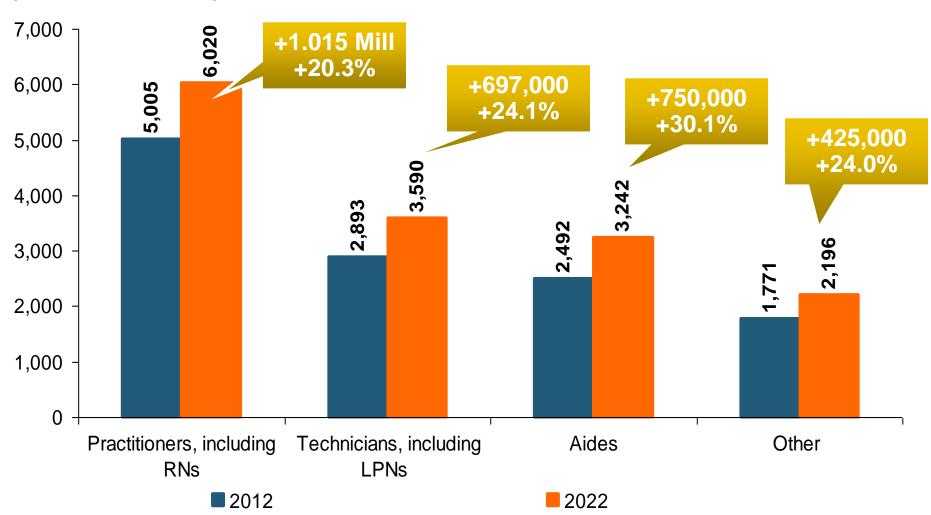


Demand for physicians is expected to outstrip supply through 2020 by a wide margin

Growth in Healthcare Profession by Skill Level, 2012 – 2022F



(Thousands of Jobs)



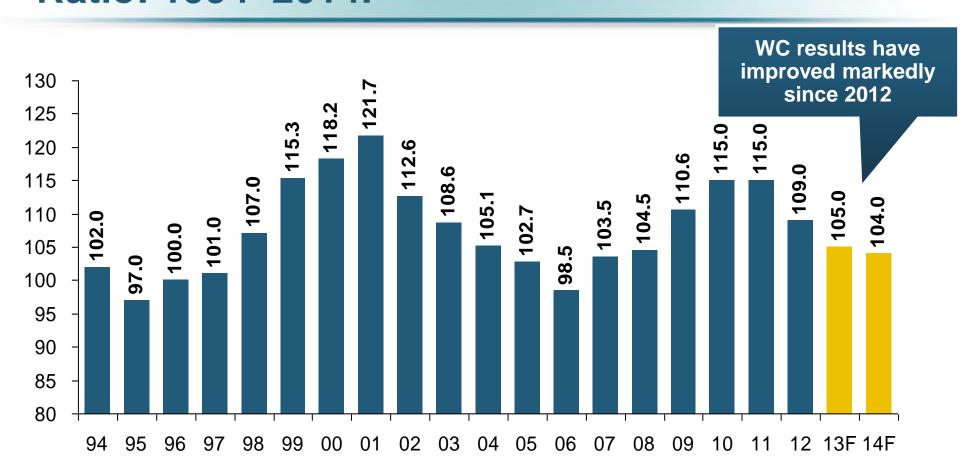


Workers Compensation Operating Environment

The Weak Economy and Soft Market Have Made the Workers Comp Operating Increasingly Challenging

Workers Compensation Combined Ratio: 1994–2014F

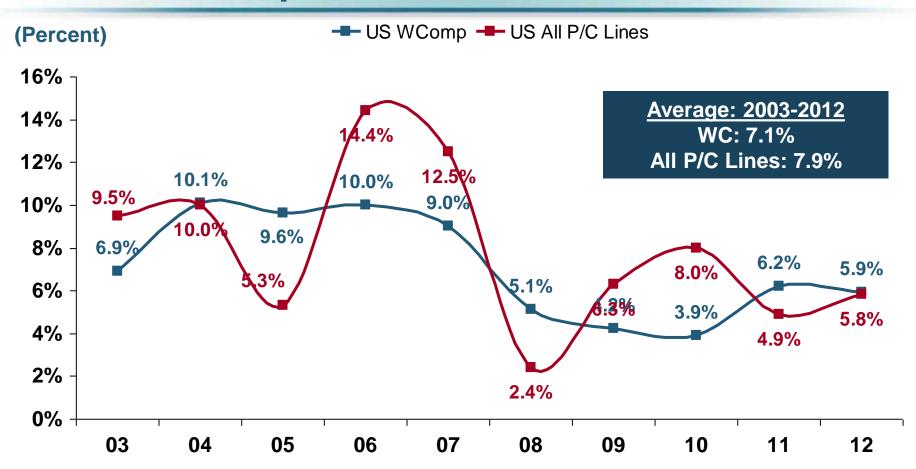




Workers Comp Results Began to Improve in 2012. Underwriting Results Deteriorated Markedly from 2007-2010/11 and Were the Worst They Had Been in a Decade.

Return on Net Worth, 2003-2012, Workers Comp vs. All P/C Lines

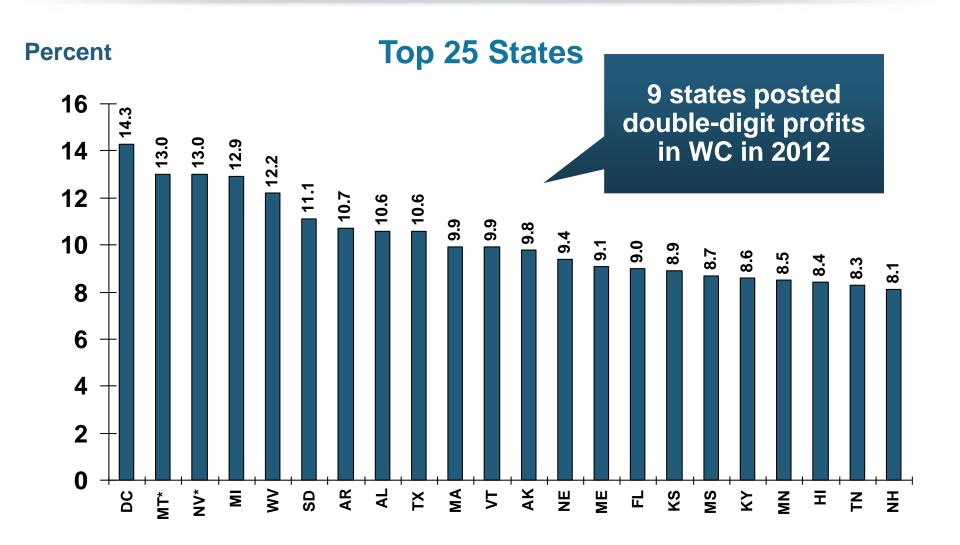




WC Has Been Marginally Less Profitable than the P/C Insurance Industry Overall

Workers Comp Return on Net Worth, 2012 information institute

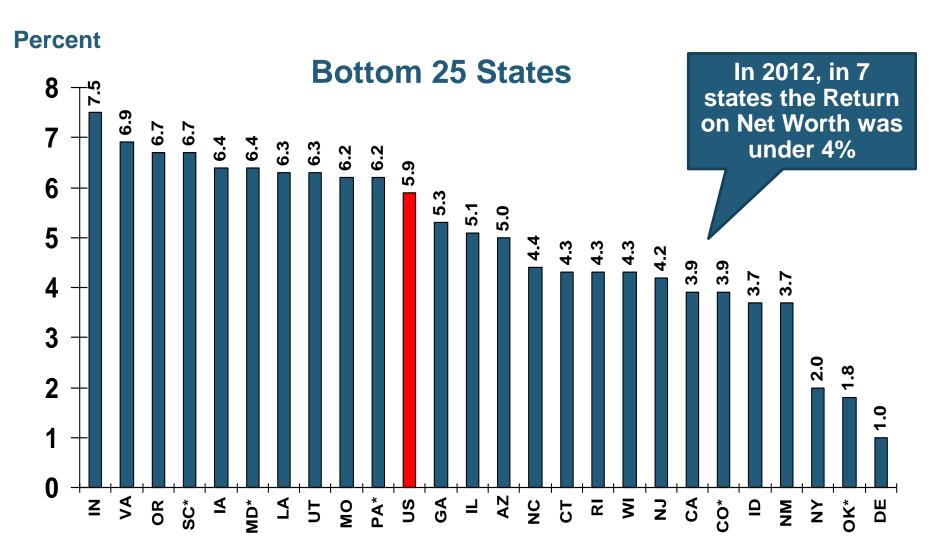




Sources: NAIC; Insurance Information Institute * Denotes results exclude state funds. Other state funds are included in results

Workers Comp Return on Net Worth, 2012 INFORMATION INSTITUTE



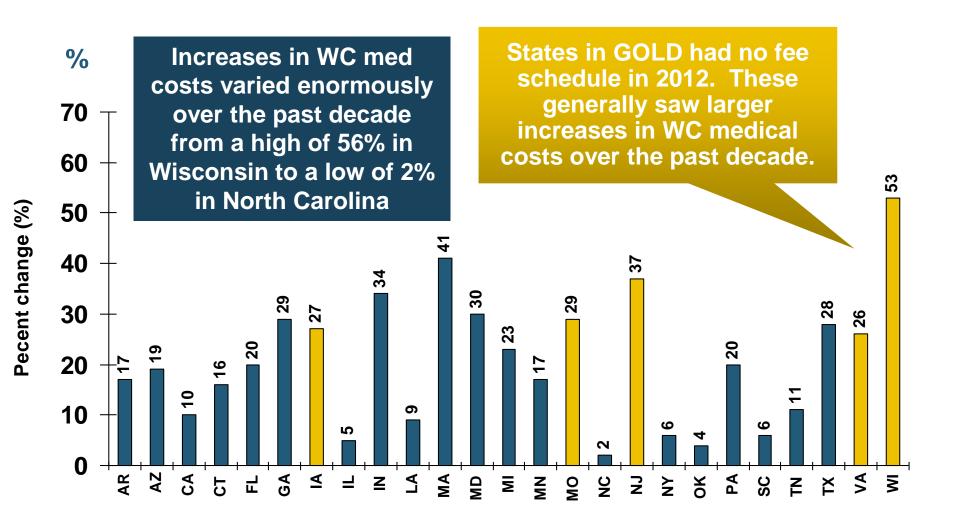


Sources: NAIC; Insurance Information Institute

^{*} Denotes results exclude state funds. Other state funds are included in results.

Change in Price Paid for Medical Professional Services in WC, 2002-2012*





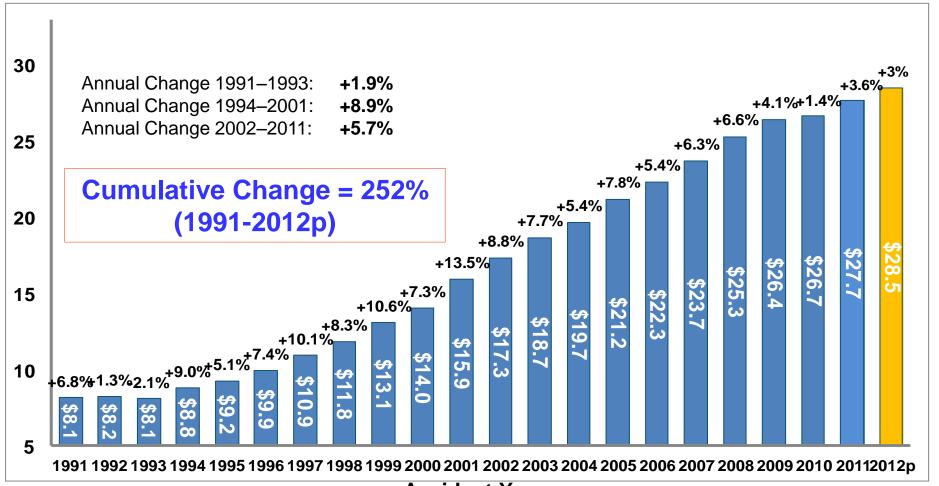
^{*}Data are preliminary as of 6/30/12.

Workers Compensation Medical Severity Moderate Increase in 2012



Medical
Claim Cost (\$000s)

Average Medical Cost per Lost-Time Claim



Accident Year

2012p: Preliminary based on data valued as of 12/31/2012.

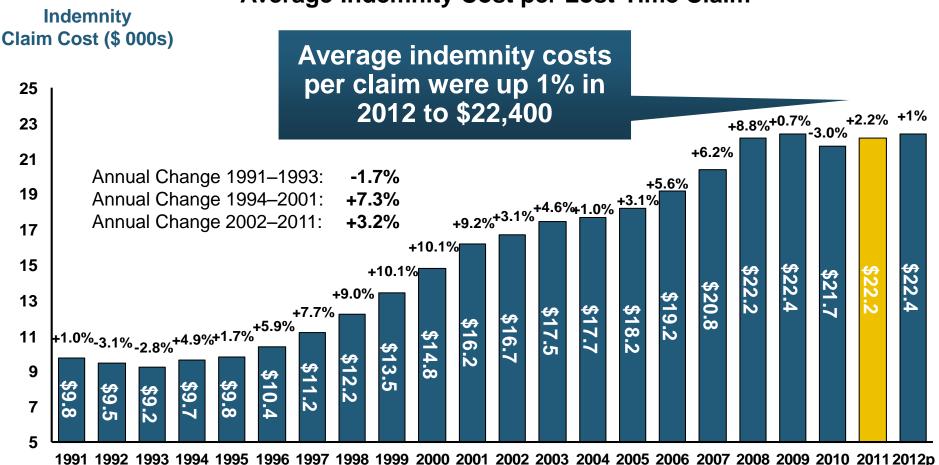
1991-2011: Based on data through 12/31/2011, developed to ultimate

Based on the states where NCCI provides ratemaking services including state funds, excluding WV; Excludes high deductible policies.

Workers Comp Indemnity Claim Costs: Small Increase in 2012



Average Indemnity Cost per Lost-Time Claim



Accident Year

2012p: Preliminary based on data valued as of 12/31/2012.

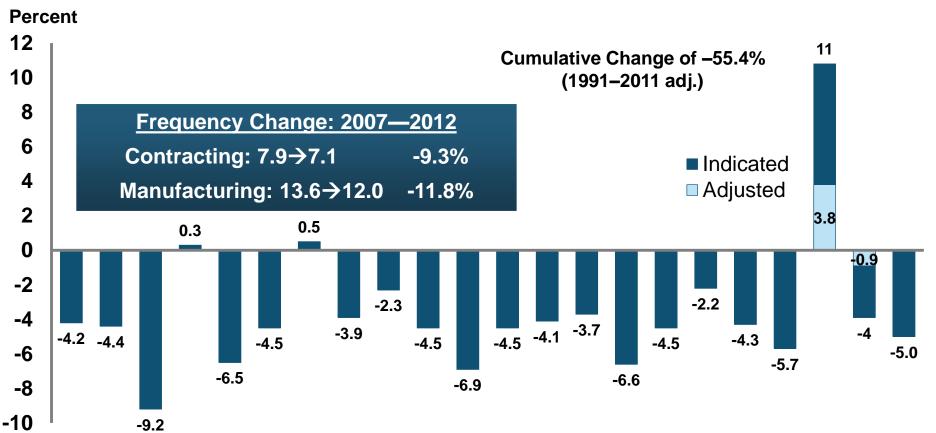
1991-2011: Based on data through 12/31/2011, developed to ultimate

Based on the states where NCCI provides ratemaking services including state funds, excluding WV; Excludes high deductible policies.

Workers Compensation Lost-Time Claim Frequency Declined in 2012







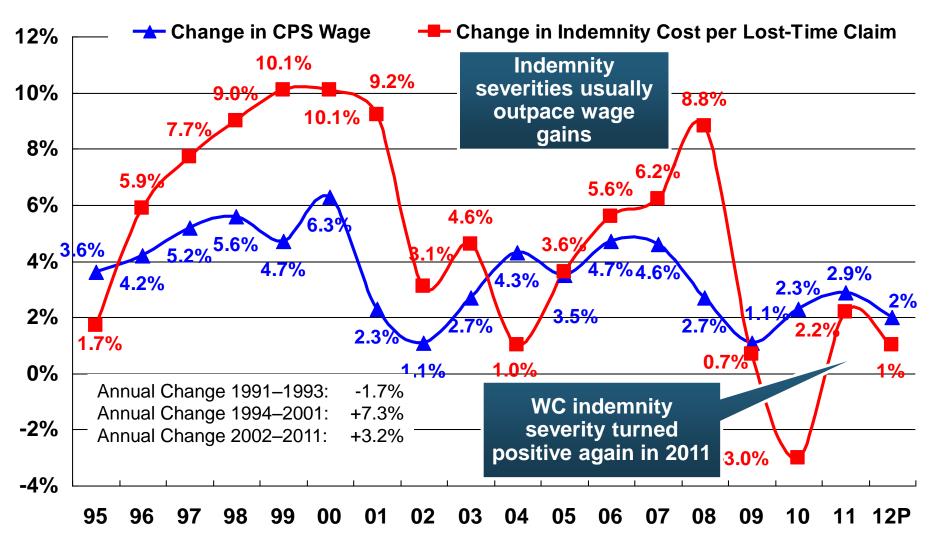
1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 20112012p

Accident Year

^{*}Adjustments primarily due to significant audit activity.
2012p: Preliminary based on data valued as of 12/31/2012
1991–2011: Based on data through 12/31/2011, developed to ultimate

WC Indemnity Severity vs. Wage Inflation, 77

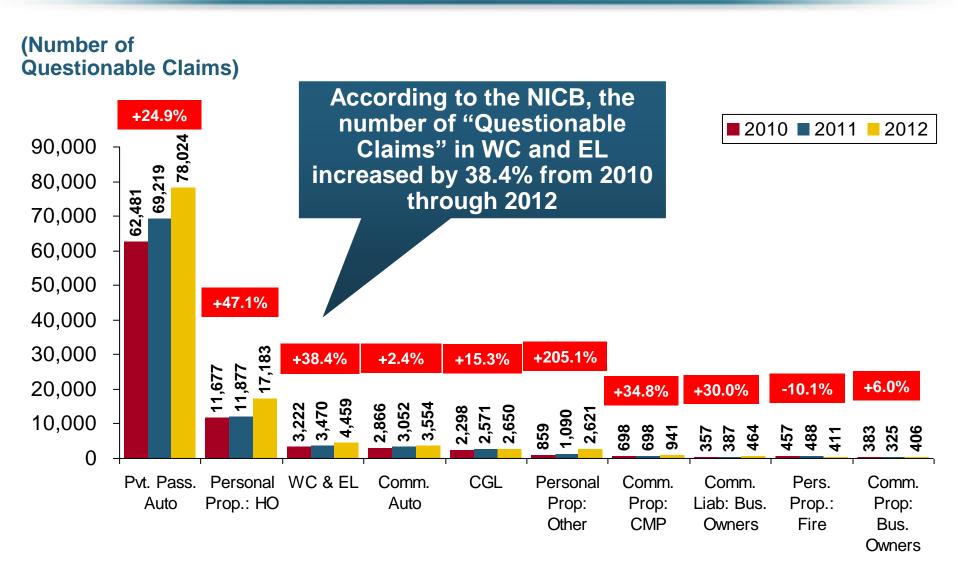




2011p: Preliminary based on data valued as of 12/31/2011; 1991-2010: Based on data through 12/31/2010, developed to ultimate. Based on the states where NCCI provides ratemaking services. Excludes the effects of deductible policies. CPS = Current Population Survey. Source: NCCI

Questionable Claims, Top 10 Policy Types: 2010–2012

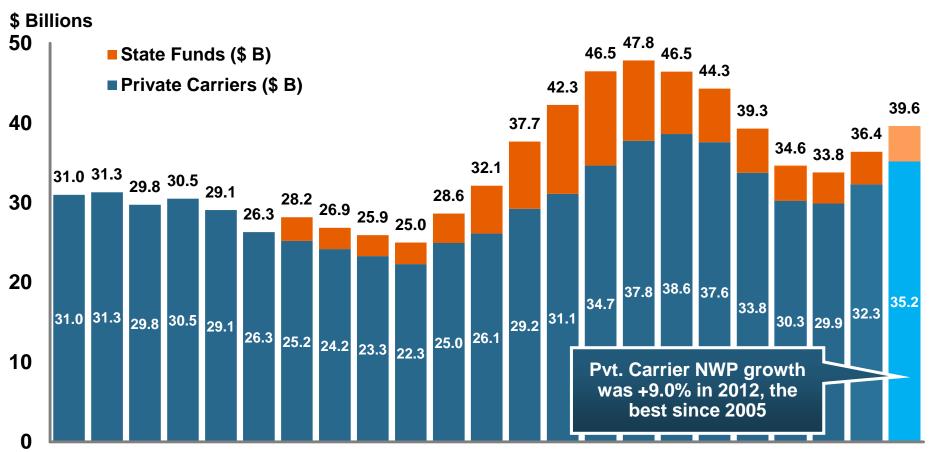




Workers Compensation Premium: Second Consecutive Year of Increase



Net Written Premium



1990 1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 20112012p

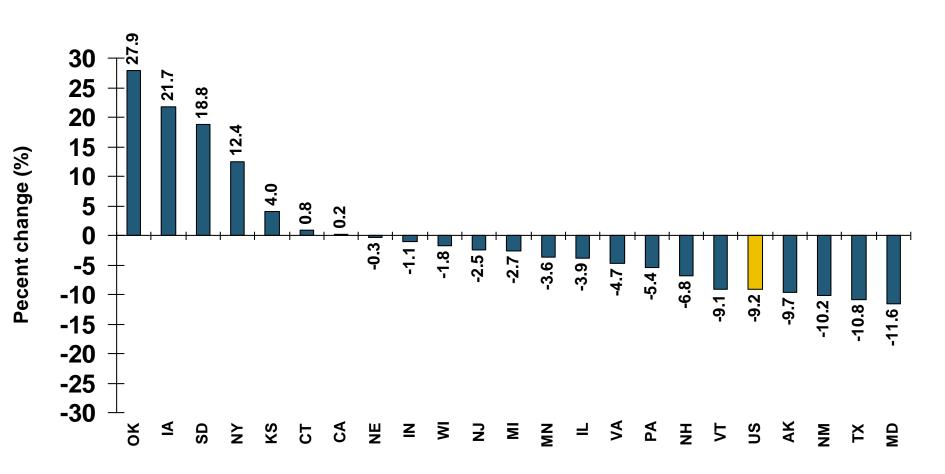
p Preliminary

Source: 1990–20102p Private Carriers, Annual Statement Data, NCCI.
1996–2012p State Funds: AZ, CA, CO, HI, ID, KY, LA, MD, MO, MT, NM, OK, OR, RI, TX, UT Annual Statements
State Funds available for 1996 and subsequent

Direct Premiums Written: Workers' Comp Percent Change by State, 2007-2012*



Top 25 States

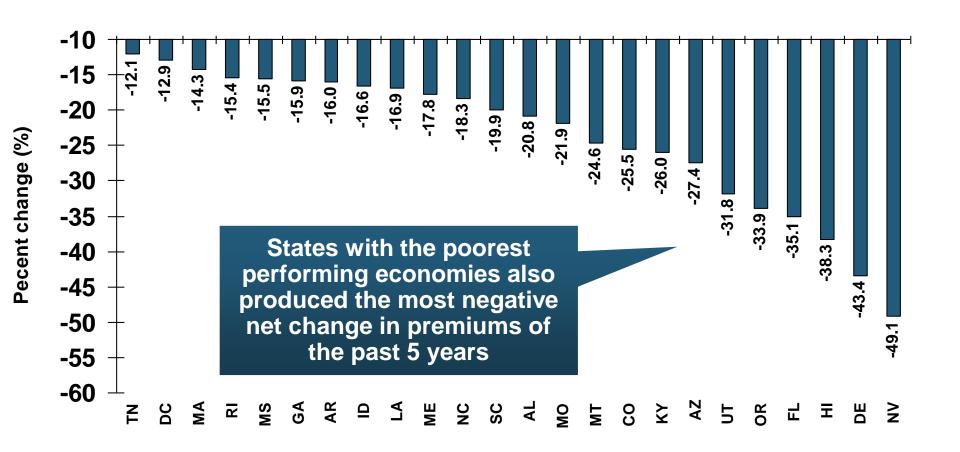


^{*}Excludes monopolistic fund states: ND, OH, WA, WY as well as WV, which transitioned to a competitive structure during this period. Sources: SNL Financial LC.; Insurance Information Institute.

Direct Premiums Written: Worker's Comp Percent Change by State, 2007-2012*



Bottom 25 States

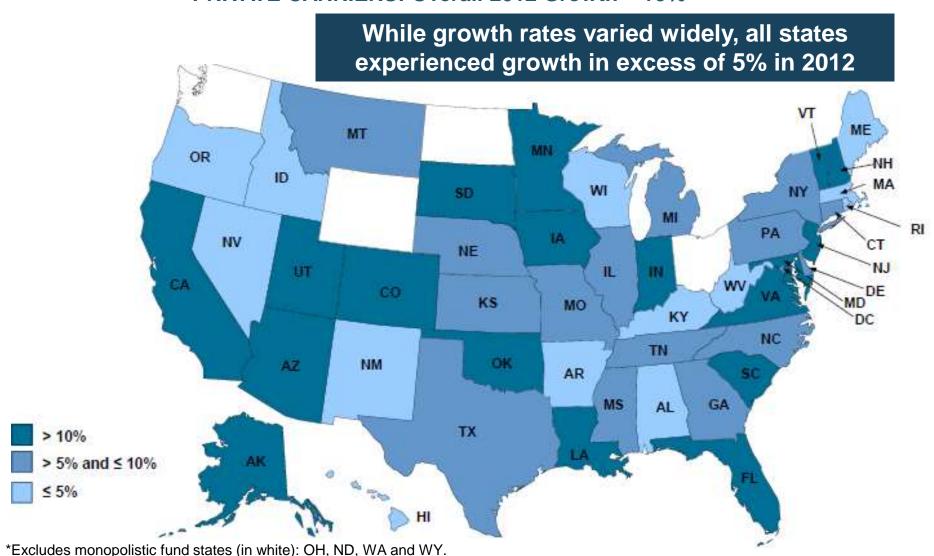


^{*}Excludes monopolistic fund states: ND, OH, WA, WY as well as WV, which transitioned to a competitive structure during this period. Sources: SNL Financial LC.; Insurance Information Institute.

2012 Workers Compensation Direct Written Premium Growth, by State*



PRIVATE CARRIERS: Overall 2012 Growth = +9%

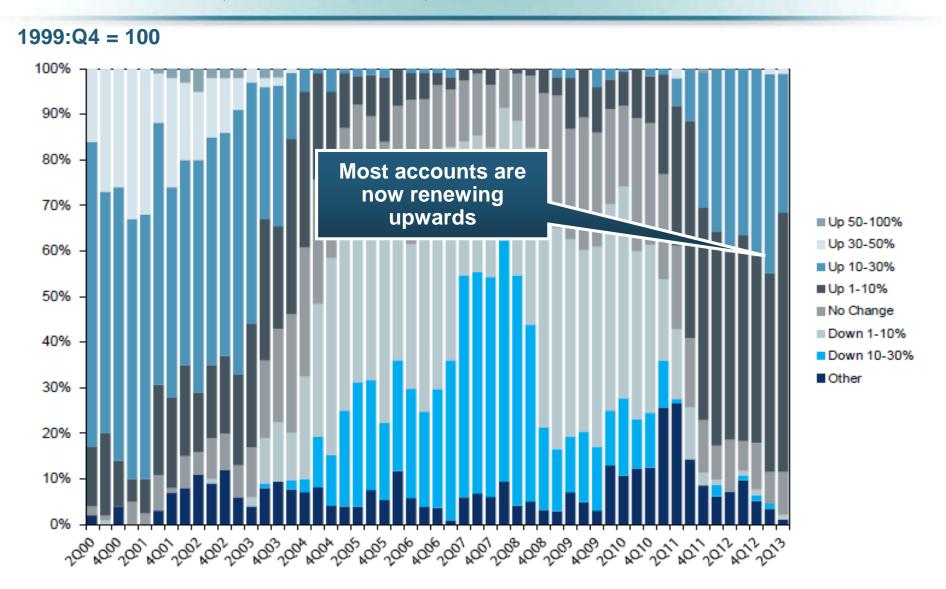


*Excludes monopolistic fund states (in white): OH, ND, WA and W Source: NCCI.

95

Workers Comp. Quarterly Rate Changes, by Line: 2000:Q1 to 2013:Q2

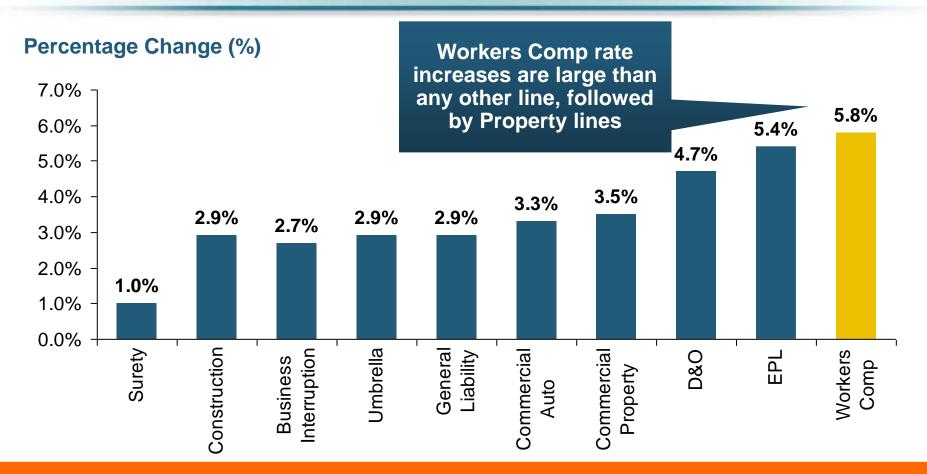




Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially. Source: Council of Insurance Agents and Brokers; Barclay's Capital; Insurance Information Institute.

Change in Commercial Rate Renewals, by Line: 2013:Q3

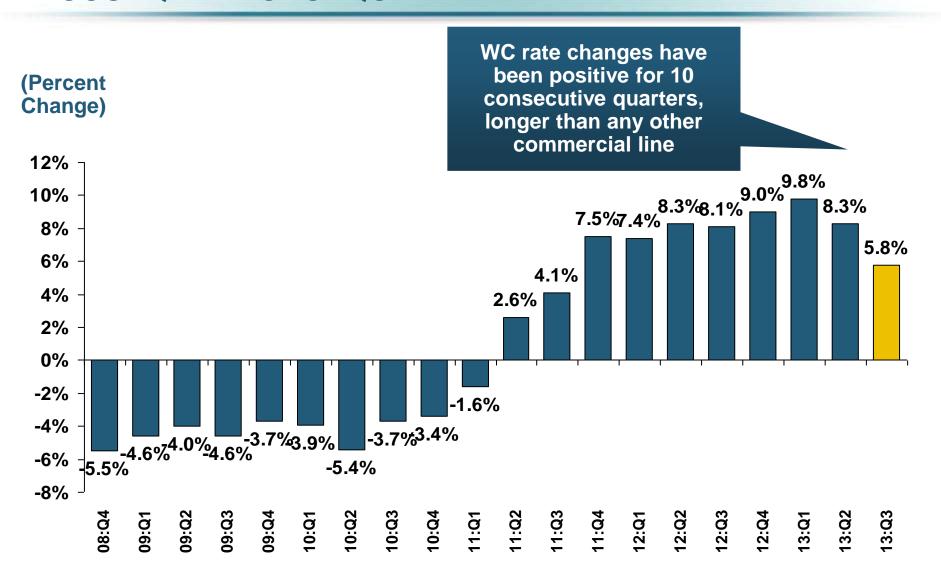




Major Commercial Lines Renewed Uniformly Upward in Q3:2013 for the 9th Consecutive Quarter; Property Lines & Workers Comp Leading the Way; Cat Losses and Low Interest Rates Provide Momentum Going Forward

Workers Comp Rate Changes, 2008:Q4 – 2013:Q3

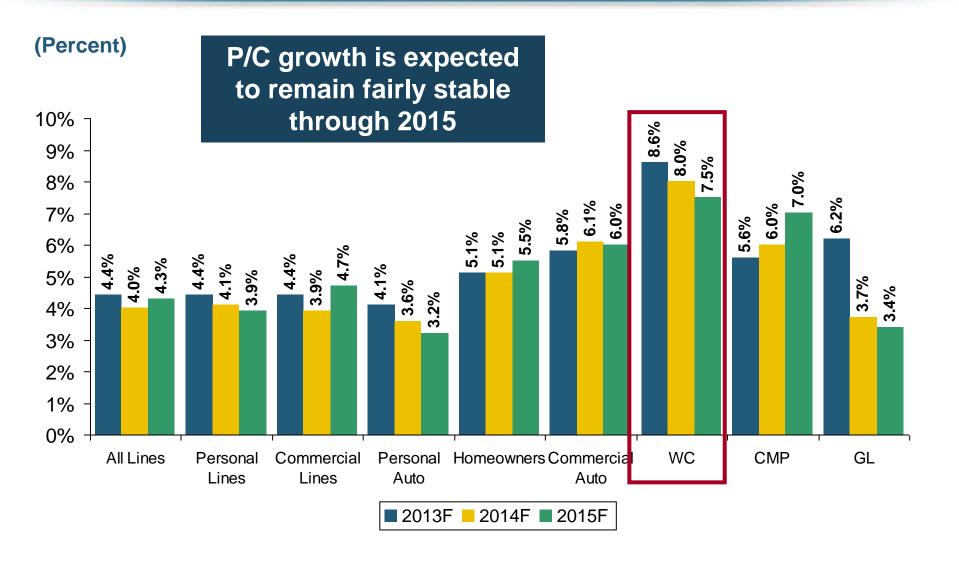




Note: CIAB data cited here are based on a survey. Rate changes earned by individual insurers can and do vary, potentially substantially. Source: Council of Insurance Agents and Brokers; Information Institute.

Growth in Direct Written Premium by Line, 2013-2015F*

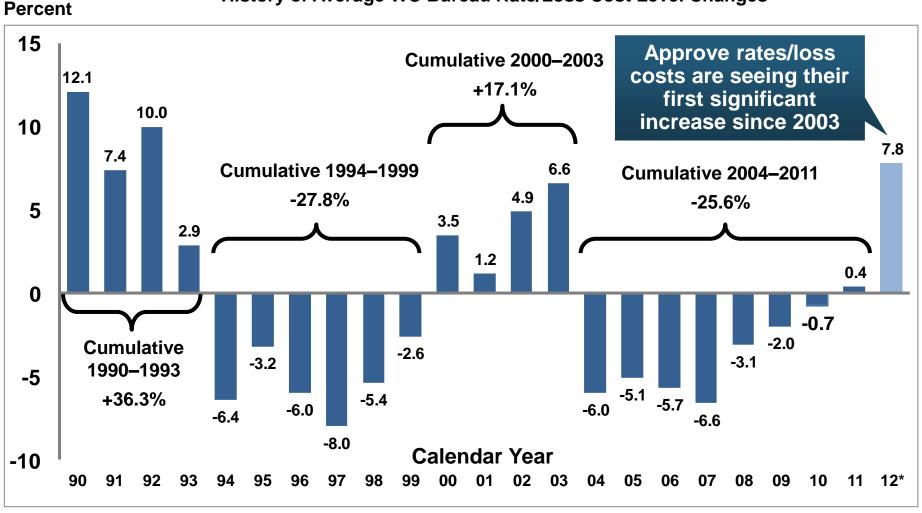




Average Approved Bureau Rates/Loss Costs







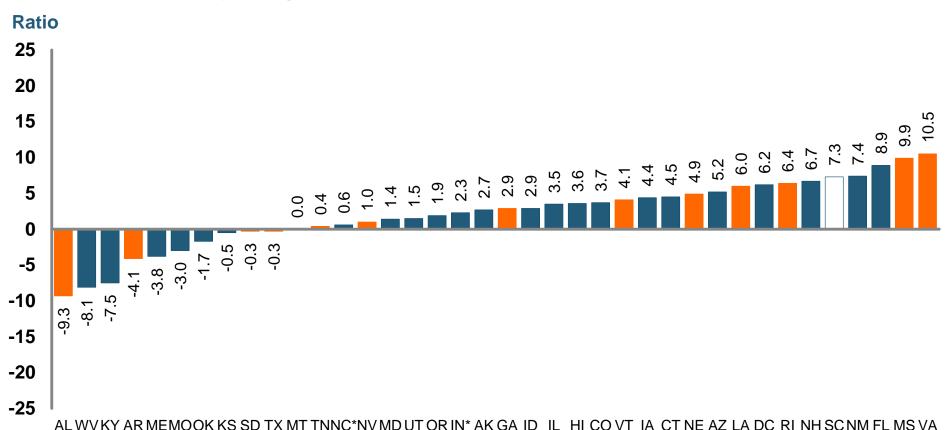
^{*}States approved through 7/31/12.

Note: Countrywide approved changes in advisory rates, loss costs and assigned risk rates as filed by applicable rating organization. Source: NCCI.

Current NCCI Voluntary Market Filed Rate/Loss Cost Changes



(Excludes Law-Only Filings)



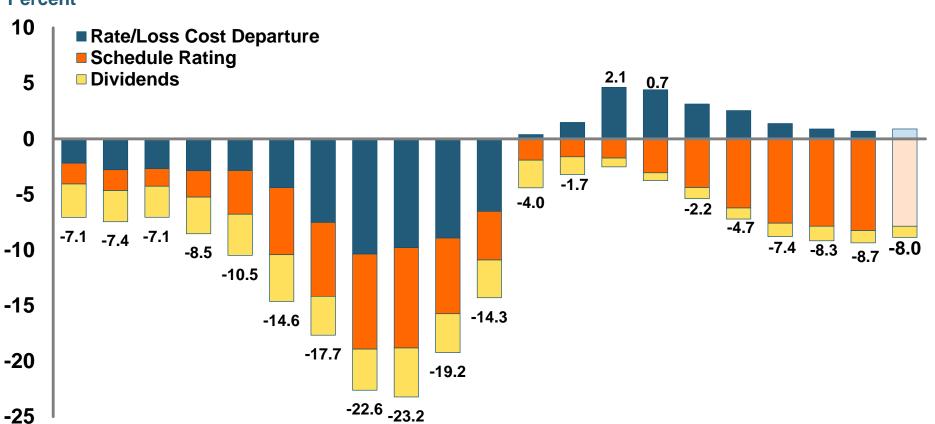
■ Effective Dates 1/1/2012 and Prior ■ Effective Dates Subsequent to 1/1/2012 □ Filed and Pending

Impact of Discounting on Workers Compensation Premium



NCCI States—Private Carriers





1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 20102011p

Policy Year

Dividend ratios are based on calendar year statistics NCCI benchmark level does not include an underwriting contingency provision Based on data through 12/31/2011 for the states where NCCI provides ratemaking services Source: NCCI.



INVESTMENTS: THE NEW REALITY

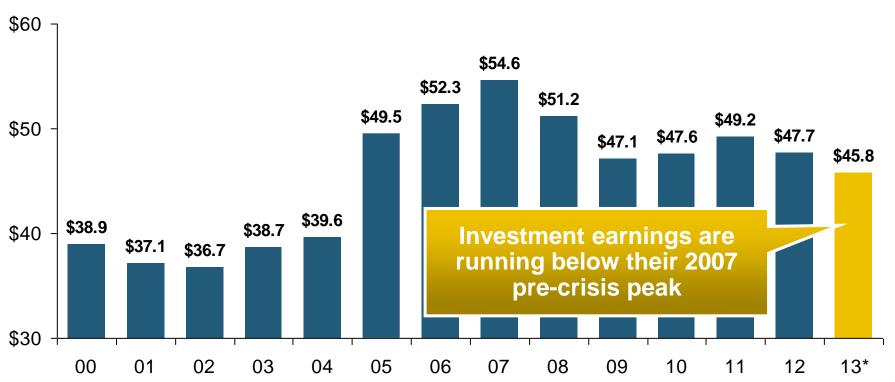
Investment Performance is a Key Driver of Profitability

Depressed Yields Will Necessarily Influence Underwriting & Pricing

Property/Casualty Insurance Industry Investment Income: 2000–2013*1







Investment Income Fell in 2012 and is Falling in 2013 Due to Persistently Low Interest Rates, Putting Additional Pressure on (Re) Insurance Pricing

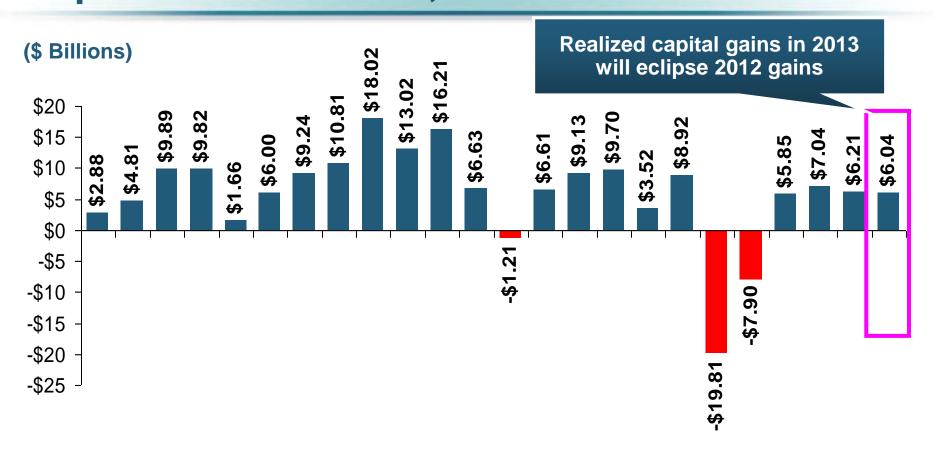
Sources: ISO; Insurance Information Institute.

¹ Investment gains consist primarily of interest and stock dividends...

^{*}Estimate based on annualized actual 9M:2013 investment income of \$34.338B.

P/C Insurer Net Realized Capital Gains/Losses, 1990-2013:Q3





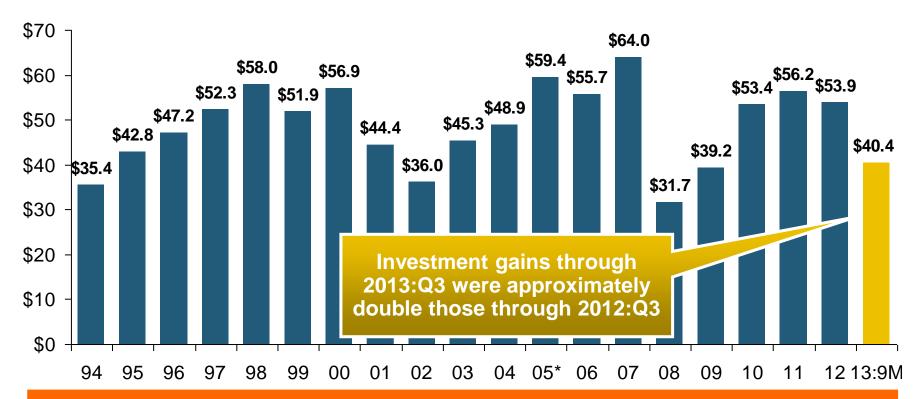
90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08 09 10 11 1213:9M

Insurers Posted Net Realized Capital Gains in 2010, 2011 and 2012 Following Two Years of Realized Losses During the Financial Crisis. Realized Capital Losses Were the Primary Cause of 2008/2009's Large Drop in Profits and ROE

Property/Casualty Insurance Industry Investment Gain: 1994–2013:Q3¹



(\$ Billions)



Investment Income Continued to Fall in 2013 Due to Low Interest Rates but Realized Investment Gains Were Up Sharply; The Financial Crisis Caused Investment Gains to Fall by 50% in 2008

Sources: ISO: Insurance Information Institute.

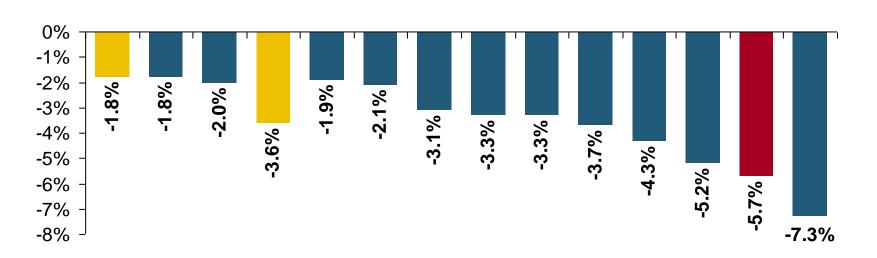
¹ Investment gains consist primarily of interest, stock dividends and realized capital gains and losses.

^{* 2005} figure includes special one-time dividend of \$3.2B;

Reduction in Combined Ratio Necessary to Offset 1% Decline in Investment Yield to Maintain Constant ROE, by Line*







Lower Investment Earnings Place a Greater Burden on Underwriting and Pricing Discipline

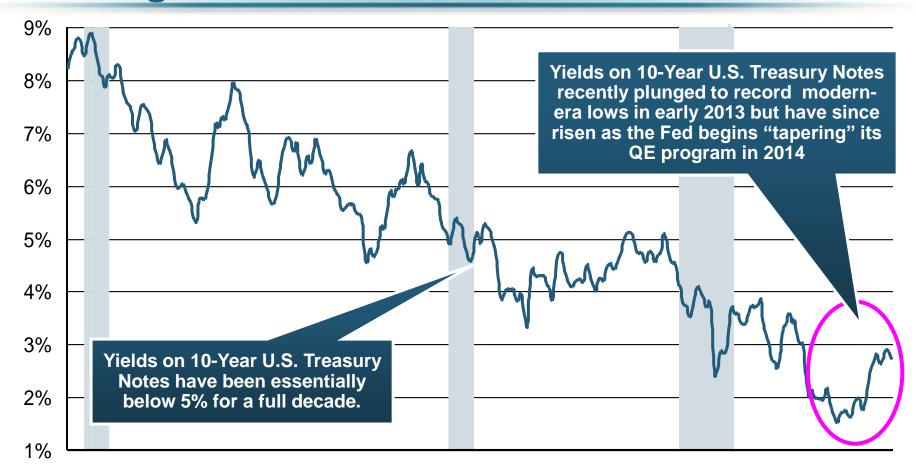
Source: A.M. Best; Insurance Information Institute.

^{*}Based on 2008 Invested Assets and Earned Premiums

^{**}US domestic reinsurance only

U.S. 10-Year Treasury Note Yields: A Long Downward Trend, 1990–2014*





'90 '91 '92 '93 '94 '95 '96 '97 '98 '99 '00 '01 '02 '03 '04 '05 '06 '07 '08 '09 '10 '11 '12 '13 '14

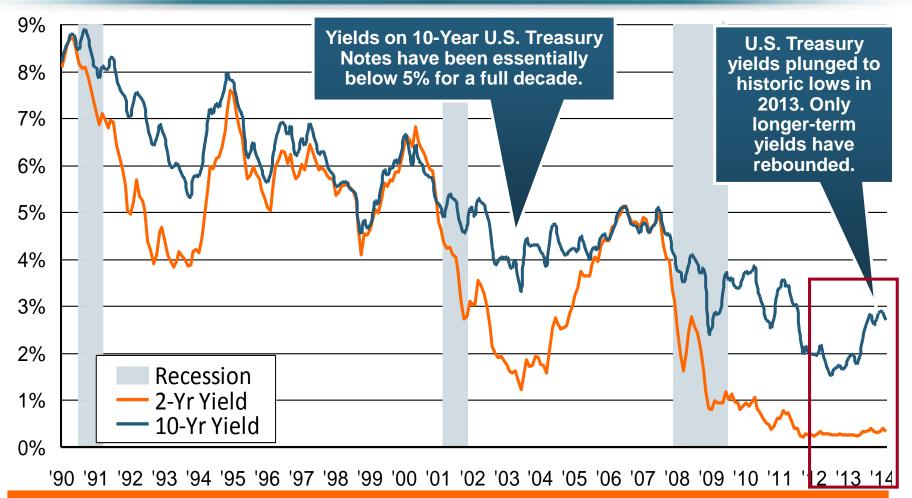
Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

^{*}Monthly, through February 2014.

Note: Recessions indicated by gray shaded columns.

U.S. Treasury Security Yields: A Long Downward Trend, 1990–2014*





Since roughly 80% of P/C bond/cash investments are in 10-year or shorter durations, most P/C insurer portfolios will have low-yielding bonds for years to come.

^{*}Monthly, constant maturity, nominal rates, through February 2014.

Treasury Yield Curves: Pre-Crisis (July 2007) vs. Feb. 2014





The Fed Is Actively Signaling that it Is Determined to Keep Rates Low Until Unemployment Drops Below 6.5% or Until Inflation Expectations Exceed 2.5%; Low Rates Add to Pricing Pressure for Insurers.

Treasury Yield Curves: Pre-Crisis (July 2007) vs. Feb. 2014





Higher longer-term yields will help insurers but short term yields are expected to lag behind

Outlook for U.S. Treasury Bond Yields Through 2015





Longer-tail lines like MPL and workers comp will benefit the most from the normalization of yields

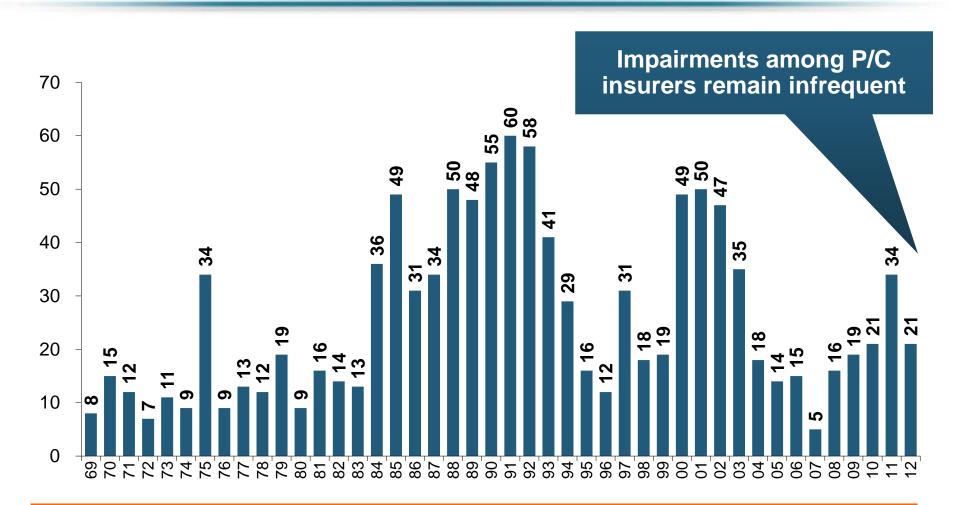


Financial Strength & Underwriting

History Suggests that WC, Like Other Long-Tailed Lines Is Much More Difficult to Underwrite

P/C Insurer Impairments, 1969–2012

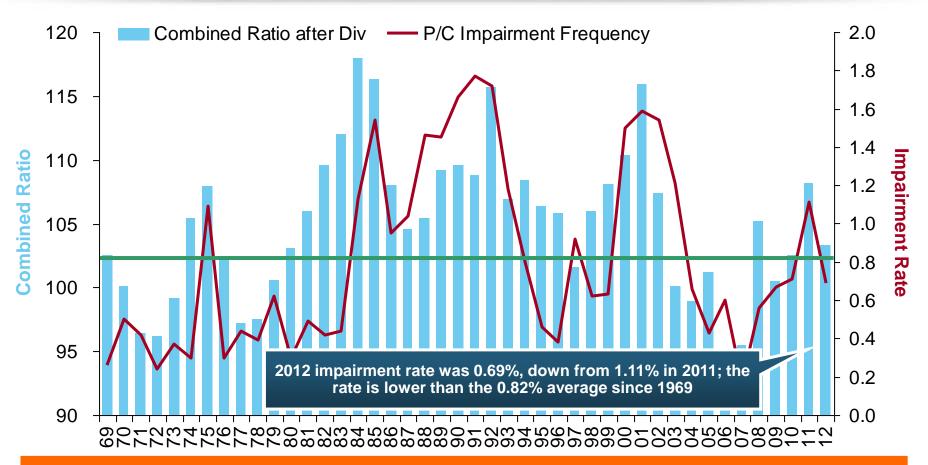




The Number of Impairments Varies Significantly Over the P/C Insurance Cycle, With Peaks Occurring Well into Hard Markets

P/C Insurer Impairment Frequency vs. Combined Ratio, 1969-2012

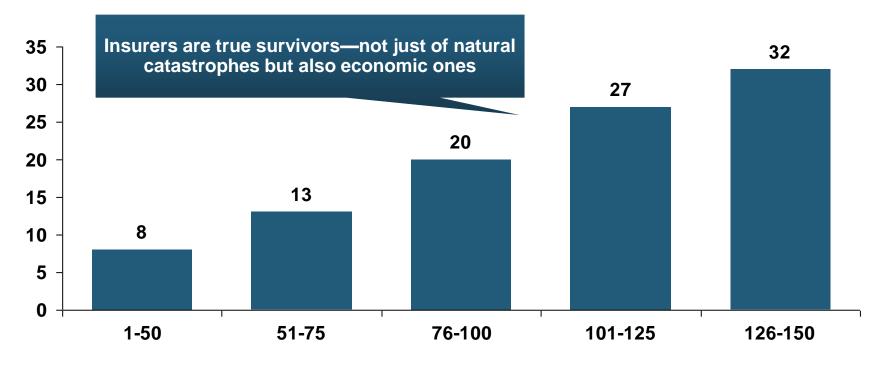




Impairment Rates Are Highly Correlated With Underwriting Performance and Reached Record Lows in 2007; Recent Increase Was Associated Primarily With Mortgage and Financial Guaranty Insurers and Not Representative of the Industry Overall

Number of Recessions Endured by P/C Insurers, by Number of Years in Operation Institute

Number of Recessions Since 1860



Number of Years in Operation

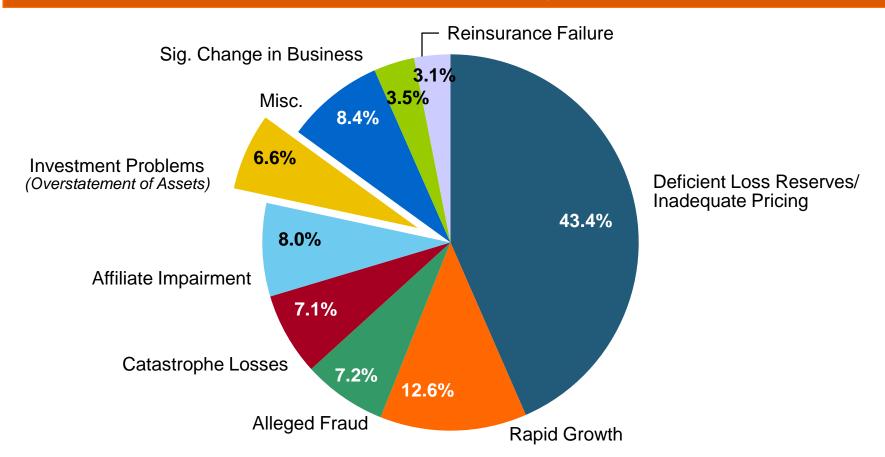
Many US Insurers Are Close to a Century Old or Older

Reasons for US P/C Insurer Impairments, 1969–2012



Historically, Deficient Loss Reserves and Inadequate Pricing Are By Far the Leading Cause of P-C Insurer Impairments.

Investment and Catastrophe Losses Play a Much Smaller Role

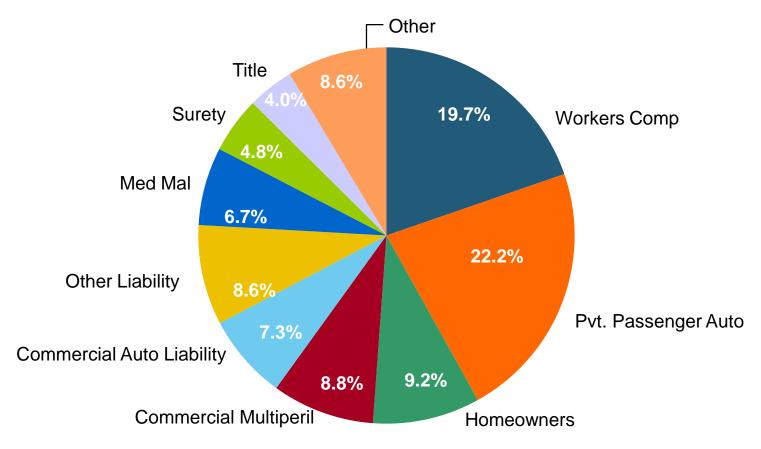


Source: A.M. Best Special Report "Pace of P/C Impairments Slowed in 2012; Auto Writers, RRGs Continued to Struggle," June 2013; Insurance Information Institute.

Top 10 Lines of Business for US P/C Impaired Insurers, 2000–2012



Medical Professional Liability Accounts for Only About 2% of Industry DPW but 6.7% of Insurer Impairments



Source: A.M. Best Special Report "Pace of P/C Impairments Slowed in 2012; Auto Writers, RRGs Continued to Struggle," June 2013; Insurance Information Institute.



Workers Compensation

The *NEXT* 100 Years

Threats and Challenges



- Will Advances in Workplace Safety Make WC Irrelevant?
- Loss of Pricing Discipline
- Persistently Low Interest Rates
- Affordable Care Act ("ObamaCare")
 - Probably a small net benefit for WC insurers
 - Less cost shifting possible
 - Potential downward pressure on drivers of med cost inflation; Wellness?
- Obesity
- Aging Workforce
- Opioids
- Regulatory Risk
- Anti-Immigration Sentiment in Washington
 - Likely holding back growth in high and low skill jobs
- Adoption of Employer Liability Laws? (e.g., TX, OK)
- "Big Data" and Workers Comp
 - Proliferation of advanced analytics

Workers Compensation Timeline

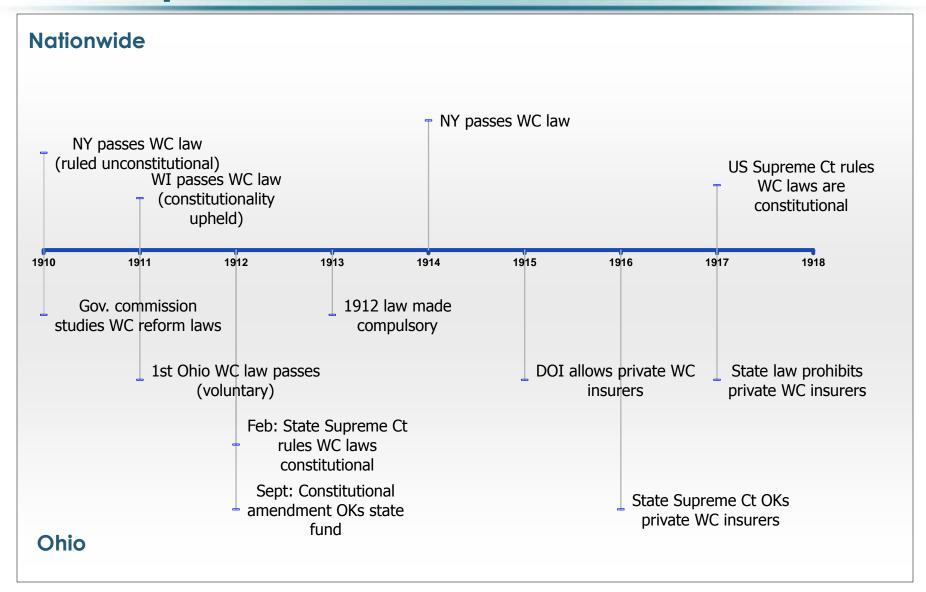


- Industrialization of US in the Late 19th/Early 20th Century Led to Increasing & Unacceptably High Number of Deaths and Injuries Among Workers
 - In 1912, an estimated 18,000 to 23,000 workers were killed on the job (compared to 5,071 in 2008) and approximately 4.7 million (12% or workforce) suffered a nonfatal illness or injury (compared to 3.7 million 2008)
 - The 1912 death/injury rates would imply 75,600 deaths and 17 million injuries today
 - More awareness of broader impacts on families of injured/killed workers
- Workers Could Seek Redress Under Tort Law, But Seldom Prevailed
 - Employers usually won suits filed by injured workers by arguing:
 - Contributory Negligence: Employee was at least partially to blame for the accident
 - Assumed Risk: By taking the job, the employee understood the hazards involved
 - Fellow Servant Rule: A fellow worker caused the accident, so the employer was not at fault
- European Countries Began to Implement Workers Compensation Programs
 - Germany (1884); England (1897)
- Insurers Began to Sell Commercial Liability Coverage in the Late 1800s
 - Coverage for inadvertent errors became more commonplace
 - In the workforce, such policies became the first employer liability policies

Source: Insurance Information Institute.

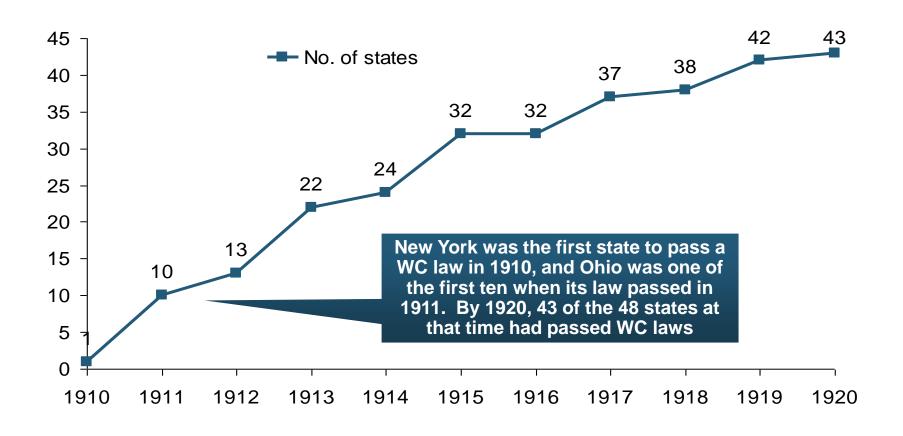
Key Workers Compensation Developments in the 1910s





Cumulative Number of WC Laws Passed, 1910-1920





Workers Compensation: 4 Predictions for the *Next* 100 Years



1. The Workplace Will Become Safer

- Continuation of a nearly century long trend
- Deaths and injuries will continue to fall and perhaps plummet due to improvements in risk management, technology and medicine
- Technologies such as autonomous (driverless vehicles) will likely be a reality within 20-25 years causing motor-vehicle related fatalities and injuries (including MSDs) to fall

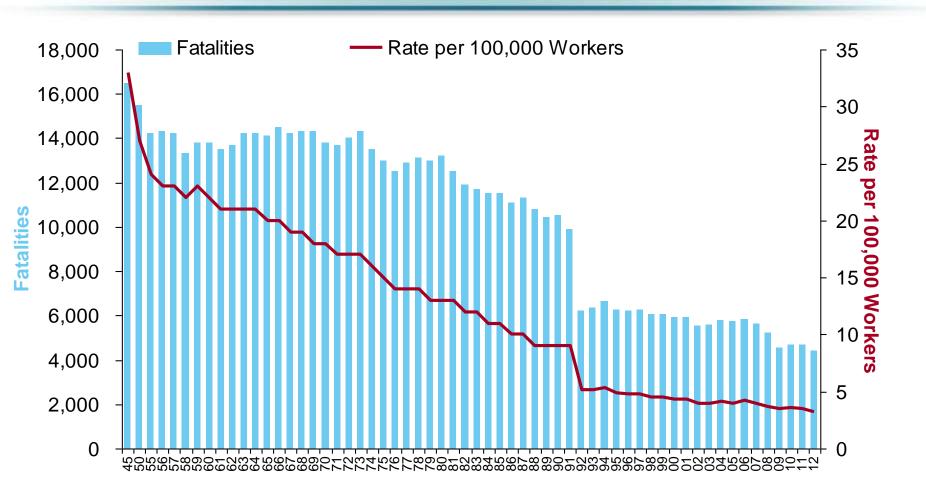
2. The Footprint of Federal Regulation on Insurance Will Increase

- TRIA: Workers comp is arguably the most TRIA-dependent line
- Post-Dodd-Frank: One (and in the future perhaps more) Systemically Important
 Financial Institution (SIFI) is a big WC insurer; The Fed is the ultimate regulator of SIFIs
- Other WC insurers and reinsurers could be designated as Internationally Active Insurance Group (IAIG); Impact of this in the US is still unclear; More capital?
- Federal Insurance Office (FIO): Pushing for greater consistency in state regulation
- Affordable Care Act and subsequent healthcare legislation
- Will the federal government take direct interest in WC?
 - It already has (e.g., TRIA) but will not seek to completely usurp states
 - As WC medical loss share rises, WC will get pulled into a tighter federal orbit
- Insurers could once again resurrect the Optional Federal Charter debate
- Bottom Line: The federal regulatory camel's nose is under the tent; The hump is next.

Source: Insurance Information Institute.

Workplace Fatalities, 1945-2012





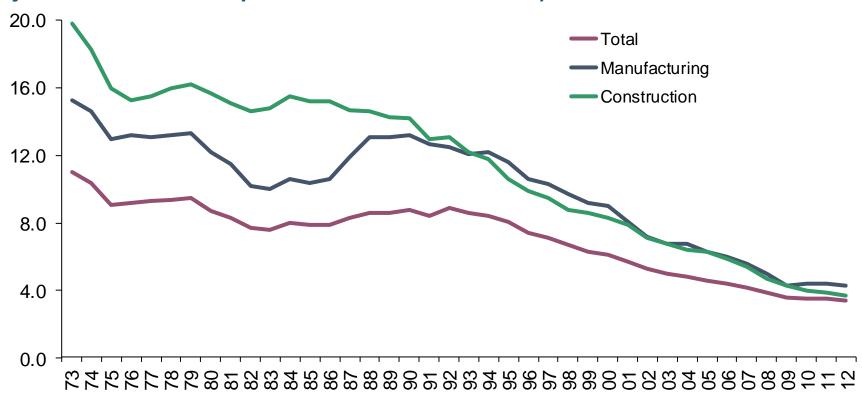
Workplace deaths and injury rates have been falling for decades—trends that will likely continue for many years to come

Source: Bureau of Labor Statistics; National Safety Council; Insurance Information Institute

U.S. Workforce Injury & Illness Rates, 1973-2012



(Injuries and Illnesses per 100 Full-Time Workers)



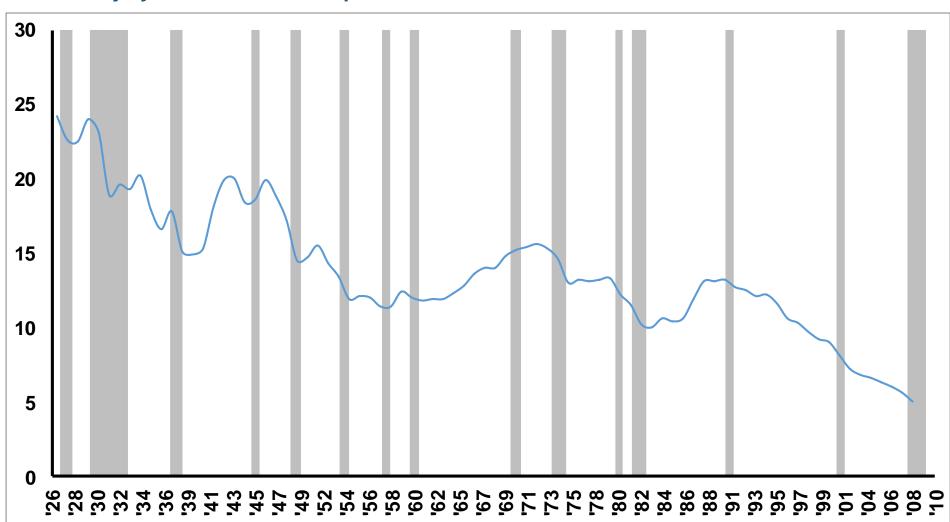
Workplace injury rates have declined in all industries from 11.0 in 1973 to 3.4 in 2012; in the same period injury rates in manufacturing declined from 15.3 to 4.3 and in construction from 19.8 to 3.7.

Sources: Bureau of Labor Statistics; Insurance Information Institute

Frequency: 1926–2009 A Long-Term Drift Downward

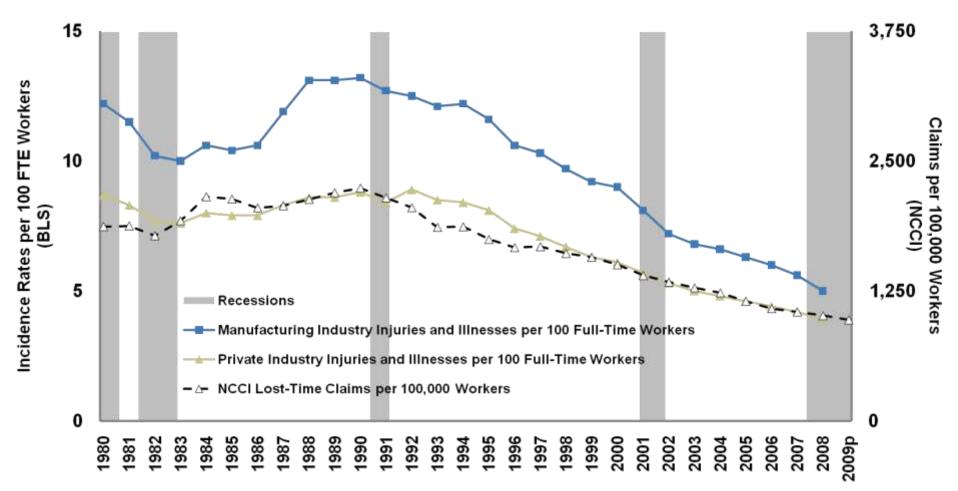


Manufacturing – Total Recordable Cases
Rate of Injury and Illness Cases per 100 Full-Time Workers



Workplace Injury Incidence Rates Declined in Last Four Economic Downturns





Note: Recessions indicated by gray bars. Sources: NCCI, US Bureau of Labor Statistics:

Workers Compensation: 5 Predictions for the *Next* 100 Years



3. Businesses Will Retain More Risk

- Large deductible programs, self-insurance and use of captives will grow
- Driven by more sophisticated risk management throughout corporate America and buildup of cash on corporate balance sheets (phenomenon of increased risk retention is occurring for most types of property and liability risks)
- Some catastrophic WC exposures could be securitized

4. Medical Costs Will Continue to Rise

- Technology, advancements in medicine will drive costs higher
- Co-morbidities persist but may plateau; May improve over the span of decades
- Supply/Demand imbalances for med services unlikely to persist beyond next 20 years
- Consolidation in the healthcare space is likely; Net impact is upward price pressure
- Digitization of patient med records per ACA is costly but ultimately should save money
- <u>BUT</u>: "Big Data" drive should improve patient outcomes and lower costs
- IF: Population projections are correct, aging will be less of an issue after 2030 or so
- AND: People will live significantly longer but will not work that much longer



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