Workers Compensation Insurance:
The Role of State Funds, Market Trends and Economic Influences

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Presentation Outline

The Role of Workers Compensation State Funds
- History
- Organizational Structure and Evolution
- Market Share Analysis
- Performance

Property Casualty Insurance and Workers Compensation Market Overview & Outlook
- Financial Overview
- Underwriting Trends

State of the Economy and Impacts on Employers and Workers Compensation Insurance
- Impacts of the “Great Recession” on Exposure & Growth
A Brief History: The Role of Workers Compensation State Funds

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.
California’s state fund was founded in 1914 amid a wave of new workers comp laws across the US. New York was the first state to pass a WC law in 1910.

The Role of Workers Compensation State Funds: Public Policy & Economic Missions

The Core **Public Policy** Mission of WC State Funds is to Assure the Availability of Affordable Workers Compensation Coverage to Employers

- The original catalyst for WC was the recognition that the rapidly increasing number of occupational injuries and deaths were exacting a high and unfair physical and financial toll on injured workers and their families.
- Prior to 1920, there was some question whether the private insurance sector could meet the demand and affordably supply this new type of coverage on its own. State funds were a tool for meeting this new public policy objective.
- States adopted differing strategies for assuring this obligation was met: competitive and monopolistic state funds whereas others allowed the private sector to satisfy demand (subject to state oversight and regulation).
- For the state funds formed in the late 1980s and 1990s, states sought to bring stability to a market where costs were rising rapidly and residual market shares exploding.

Secondary Core **Public Policy** Mission: Reduce Workplace Injuries/Deaths

- Provision of loss control services and loss sensitive pricing help achieve this goal.

Core **Economic** Mission: Support of the State Economy

- The availability of affordable WC coverage is a key consideration in many business location and expansion decisions.
- This issue is likely increase in importance in the job-starved 2010s.

To Operate Self-Sufficiently (i.e., Minimal Public Financial Support)

Source: Insurance Information Institute; Conning.
All But Three of the 26 State Funds Ever Formed Were Founded in the 1910s (the Decade in which Workers Comp Laws Were Put on the Books in Most States) and the 1990s (During a Period of Massive Reform of WC Systems Countrywide)

* Nevada’s monopolistic state fund, founded in 1913, was privatized in 1999. There is currently no state fund in the state.

**West Virginia’s original (monopolistic) state fund was formed in 1915. Its successor, BrickStreet Mutual, became a competitive state fund in 2006. Oregon’s original (monopolistic) fund, formed in 1914, adopted a competitive structure in 1980.

Sources: Insurance Information Institute research.
## Monopolistic State Funds: Where Are they Today?

<table>
<thead>
<tr>
<th>State</th>
<th>Date started</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ohio</td>
<td>1911</td>
<td>Still monopolistic</td>
</tr>
<tr>
<td>Washington</td>
<td>1911</td>
<td>Monopolistic; referendum sought in 2010</td>
</tr>
<tr>
<td>Nevada</td>
<td>1913</td>
<td>State fund privatized in 1999</td>
</tr>
<tr>
<td>Oregon</td>
<td>1913</td>
<td>Allowed competition in 1980</td>
</tr>
<tr>
<td>West Virginia</td>
<td>1913</td>
<td>Allowed competition in 2008</td>
</tr>
<tr>
<td>Wyoming</td>
<td>1915</td>
<td>Still monopolistic</td>
</tr>
<tr>
<td>North Dakota</td>
<td>1919</td>
<td>Still monopolistic</td>
</tr>
</tbody>
</table>

Washington has a referendum on the ballot in November (I-1082) that would allow competition.

Ohio is considering moving toward a competitive state fund system.

Source: Insurance Information Institute
Identity Crisis: The Role of State Funds in 2010 and Beyond

The Role and Need for State Funds Is Being Questioned from Within and from Without

- Two monopolistic state funds have disappeared in recent years (NV and WV); OH and WA are being challenged.
- AZ will convert to a mutual structure by 2013
- A number of state funds can write WC risk for companies domiciled in their home state
- Several state funds now own subsidiaries that allow them to write risks with no ties to their home state (*breach of core mission?*)

Factors that Can Lead to Questioning of the Role of WC State Funds

- Shrinking Residual Markets
- Intense Private Insurer Competition
- Prolonged Soft Market
- Increasing Options (e.g., Captives, Large Deductible Programs)
- Passage of Time Since Last WC Crisis (early 1990s)
- State Budget Woes

Source: Insurance Information Institute.
The Curious Case of Arizona: Conversion of State Fund to a Mutual Insurer

- Arizona Seems to Have Decided it Doesn’t Need a State Fund (As Did NV)
- Excerpts from Arizona Senate Bill 1045 (2010 Second Regular Session)
  - On or before January 1, 2013, the state compensation fund board of directors, which terminates on July 1, 2012 pursuant to section 41-3012.19, Arizona Revised Statutes, shall perform all acts necessary to establish a successor mutual insurer corporation. The successor mutual insurer corporation shall operate to the same extent as any mutual casualty insurer that is licensed and authorized to write insurance in this state, subject to the authority and regulation by the department of insurance pursuant to title 28 20, chapter 4, article 1, Arizona Revised Statutes, and with all the powers and subject to all the laws, rules and requirements of a mutual insurer corporation that is organized under the laws of this state.

  - The successor mutual insurer corporation is not an agency of this state or a public entity of this state. The successor mutual insurer corporation shall not use the term "state compensation fund" or "SCF" in its new name or logo from and after June 30, 2014.

Source: State of Arizona; Insurance Information Institute.
Workers Compensation Premium Continues Its Sharp Decline

Net Written Premium

$ Billions

<table>
<thead>
<tr>
<th>Year</th>
<th>State Funds ($)</th>
<th>Private Carriers ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>31.0</td>
<td>26.3</td>
</tr>
<tr>
<td>1991</td>
<td>31.3</td>
<td>25.2</td>
</tr>
<tr>
<td>1992</td>
<td>29.8</td>
<td>24.2</td>
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<tr>
<td>1993</td>
<td>30.5</td>
<td>23.3</td>
</tr>
<tr>
<td>1994</td>
<td>29.1</td>
<td>22.3</td>
</tr>
<tr>
<td>1995</td>
<td>26.3</td>
<td>25.0</td>
</tr>
<tr>
<td>1996</td>
<td>28.2</td>
<td>26.1</td>
</tr>
<tr>
<td>1997</td>
<td>26.9</td>
<td>27.7</td>
</tr>
<tr>
<td>1998</td>
<td>25.9</td>
<td>29.2</td>
</tr>
<tr>
<td>1999</td>
<td>25.0</td>
<td>31.1</td>
</tr>
<tr>
<td>2000</td>
<td>28.6</td>
<td>34.7</td>
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<tr>
<td>2001</td>
<td>32.1</td>
<td>37.8</td>
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<td>2002</td>
<td>37.7</td>
<td>42.3</td>
</tr>
<tr>
<td>2003</td>
<td>42.3</td>
<td>46.5</td>
</tr>
<tr>
<td>2004</td>
<td>46.5</td>
<td>47.8</td>
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<tr>
<td>2005</td>
<td>46.5</td>
<td>44.3</td>
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<tr>
<td>2006</td>
<td>38.6</td>
<td>37.6</td>
</tr>
<tr>
<td>2007</td>
<td>37.6</td>
<td>38.7</td>
</tr>
<tr>
<td>2008</td>
<td>33.8</td>
<td>39.3</td>
</tr>
<tr>
<td>2009p</td>
<td>29.8</td>
<td>34.1</td>
</tr>
</tbody>
</table>

p Preliminary

Source: 1990–2008 Private Carriers, Best's Aggregates & Averages; 2009p, NCCI
1996–2009p 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
Private insurance markets are highly competitive. State fund market shares have been falling steadily since 2003.

Competition, favorable underwriting trends, coverage options, private insurer innovations in risk management have all helped to make the private sector WC insurance the most attractive option in most cases.

1996–2009p 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; p: Preliminary
State funds market shares among the 21 competitive state funds vary widely, from nearly 90% in WV (in transition from a monopolistic to a competitive fund market) to barely 10% in PA.
The average competitive workers comp state fund ran a loss ratio of 84.2% in 2008 compared to 77.1% for the US WC market overall.

13 of the 21 competitive state funds also serve as the market of last resort.

Yellow bars = states where the state fund is also the market of last resort

Source: Conning; A.M. Best; Insurance Information Institute.
WC rates, on average, do not appear to be significantly higher or lower in states with workers comp state funds.

California’s WC rates are about average.

P-C Insurance and Workers Compensation Overview & Outlook

A Slow Motion Cyclical Turn is Underway
Profitability

Historically Volatile
P/C Net Income After Taxes
1991–2010:H1 ($ Millions)

- 2005 ROE* = 9.6%
- 2006 ROE = 12.7%
- 2007 ROE = 10.9%
- 2008 ROE = 0.3%
- 2009 ROAS¹ = 5.8%
- 2010:H1 ROAS = 6.3%

P-C Industry 2010:H1 profits rose $10.6B from $6.0B in 2009:H1, due mainly to $2.2B in realized capital gains vs. -$11.1B in previous realized capital losses

* ROE figures are GAAP; ¹Return on avg. surplus. Excluding Mortgage & Financial Guaranty insurers yields a 7.5% ROAS for 2010:H1 and 4.6% for 2009. 2009:H1 net income was $19.2 billion and $10.2 billion in 2008:H1 excluding M&FG.

Sources: A.M. Best, ISO, Insurance Information Institute
ROE: P/C vs. All Industries
1987–2009*

Sources: ISO, Fortune; Insurance Information Institute.
The P/C Insurance Industry Well Short of Its Cost of Capital in 2008 but Narrowed the Gap in 2009 and 2010

US P/C Insurers Missed Their Cost of Capital by an Average 6.7 Points from 1991 to 2002, but on Target or Better 2003-07, Fell Short in 2008-2010

The Cost of Capital is the Rate of Return Insurers Need to Attract and Retain Capital to the Business

*Return on average surplus in 2008-2010 excluding mortgage and financial guaranty insurers.
Source: The Geneva Association, Insurance Information Institute
A 100 Combined Ratio Isn’t What It Once Was: 90-95 Is Where It’s At Now

Combined Ratio / ROE

A combined ratio of about 100 generated a 7% ROE in 2009, 10% in 2005 and 16% in 1979

Combined Ratios Must Be Lower in Today’s Depressed Investment Environment to Generate Risk Appropriate ROEs

* 2009 and 2010:Q1 figures are return on average statutory surplus. 2008, 2009 and 2010:H1 figures exclude mortgage and financial guaranty insurers

Source: Insurance Information Institute from A.M. Best and ISO data.
The Number of Impairments Varies Significantly Over the P/C Insurance Cycle, With Peaks Occurring Well into Hard Markets

Source: A.M. Best; Insurance Information Institute.
Deficient Loss Reserves and Inadequate Pricing Are the Leading Cause of Insurer Impairments, Underscoring the Importance of Discipline. Investment Catastrophe Losses Play a Much Smaller Role.
P/C Premium Growth Primarily Driven by the Industry’s Underwriting Cycle, Not the Economy
Soft Market Appears to Persist in 2010 but May Be Easing: Relief in 2011?

Net Written Premiums Fell 0.7% in 2007 (First Decline Since 1943) by 2.0% in 2008, and 4.2% in 2009, the First 3-Year Decline Since 1930-33.

NWP was flat with 0.0% growth in 10:H1 vs. -4.4% in 09:H1

Shaded areas denote “hard market” periods
Sources: A.M. Best (historical and forecast), ISO, Insurance Information Institute.
Change in Commercial Rate Renewals, by Line: 2010:Q2

Percentage Change (%)

-6.4% -7.0% -6.3% -6.0% -5.5% -5.4% -4.6% -3.4% -3.3% -3.0% -0.1%

Most Major Commercial Lines Renewed Down in Q2:2010 at a Faster Pace than a year Earlier

Source: Council of Insurance Agents and Brokers; Insurance Information Institute.

1999:Q4 = 100

Pricing today is where it was in Q4:2000 (pre-9/11)

Source: Council of Insurance Agents and Brokers; Insurance Information Institute.
## Net Written Premium Growth Forecasts by Line: 2010 - 2012

<table>
<thead>
<tr>
<th>Line</th>
<th>2010F</th>
<th>2011F</th>
<th>2012F</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Lines</td>
<td>1.8%</td>
<td>5.0%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Personal Auto</td>
<td>3.1</td>
<td>5.2</td>
<td>5.0</td>
</tr>
<tr>
<td>Homeowners</td>
<td>4.7</td>
<td>5.2</td>
<td>5.0</td>
</tr>
<tr>
<td>Workers Comp</td>
<td>-4.0</td>
<td>5.5</td>
<td>10.0</td>
</tr>
<tr>
<td>Commercial Auto</td>
<td>1.5</td>
<td>8.1</td>
<td>6.9</td>
</tr>
<tr>
<td>Commercial Multi-peril</td>
<td>1.5</td>
<td>6.3</td>
<td>7.3</td>
</tr>
<tr>
<td>General Liability</td>
<td>1.3</td>
<td>5.8</td>
<td>5.8</td>
</tr>
<tr>
<td>Inland Marine</td>
<td>2.0</td>
<td>4.5</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Source: Conning, Second Quarter 2010 forecast.
Capital/Policyholder Surplus (US)

Shrinkage, but Not Enough to Trigger Hard Market

($ Billions)

*Includes $22.5B of paid-in capital from a holding company parent for one insurer’s investment in a non-insurance business

Quarterly Surplus Changes Since 2009:Q1 Trough

09:Q1: -$84.7B (-16.2%)  10:Q1: +$18.9B (+3.6%)
09:Q2: -$58.8B (-11.2%)  10:Q2: -$10.2B (-1.9%)
09:Q3: -$31.8B (-5.9%)  09:Q4: -$10.3B (-2.0%)

Investment Performance

Investments Are a Principle Source of Declining Profitability
In 2008, Investment Gains Fell by 50% Due to Lower Yields and Nearly $20B of Realized Capital Losses

2009 Saw Smaller Realized Capital Losses But Declining Investment Income

Investment Gains Are Recovering So Far in 2010

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.

Sources: ISO; Insurance Information Institute.
Reduction in Combined Ratio Necessary to Offset 1% Decline in Investment Yield to Maintain Constant ROE, by Line*

<table>
<thead>
<tr>
<th>Line</th>
<th>Percentage Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Lines</td>
<td>-1.8%</td>
</tr>
<tr>
<td>Pvt Pass Auto</td>
<td>-1.8%</td>
</tr>
<tr>
<td>Pers Prop</td>
<td>-2.0%</td>
</tr>
<tr>
<td>Commercial</td>
<td>-3.6%</td>
</tr>
<tr>
<td>Comm Auto</td>
<td>-1.9%</td>
</tr>
<tr>
<td>Credit</td>
<td>-2.1%</td>
</tr>
<tr>
<td>Comm Prop</td>
<td>-3.1%</td>
</tr>
<tr>
<td>Comm Cas</td>
<td>-3.3%</td>
</tr>
<tr>
<td>Fidelity/Surety</td>
<td>-3.3%</td>
</tr>
<tr>
<td>Warranty</td>
<td>-3.7%</td>
</tr>
<tr>
<td>Surplus Lines</td>
<td>-4.3%</td>
</tr>
<tr>
<td>Med Mal</td>
<td>-5.2%</td>
</tr>
<tr>
<td>WC</td>
<td>-5.7%</td>
</tr>
<tr>
<td>Reinsurance**</td>
<td>-7.3%</td>
</tr>
</tbody>
</table>

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

*Based on 2008 Invested Assets and Earned Premiums
**US domestic reinsurance only
Source: A.M. Best; Insurance Information Institute.
Underwriting Trends – Financial Crisis Does Not Directly Impact Underwriting Performance: Cycle, Catastrophes Were 2008’s Drivers
P/C Insurance Industry Combined Ratio, 2001–2010:H1*

As Recently as 2001, Insurers Paid Out Nearly $1.16 for Every $1 in Earned Premiums

Heavy Use of Reinsurance Lowered Net Losses

Relatively Low CAT Losses, Reserve Releases

Relatively Low CAT Losses, Reserve Releases

Best Combined Ratio Since 1949 (87.6)

Cyclical Deterioration

Lower CAT Losses, More Reserve Releases


Sources: A.M. Best, ISO.
Reserve Releases Are Continuing Strong in 2010 But Should Begin to Taper Off in 2011

Note: 2005 reserve development excludes a $6 billion loss portfolio transfer between American Re and Munich Re. Including this transaction, total prior year adverse development in 2005 was $7 billion. The data from 2000 and subsequent years excludes development from financial guaranty and mortgage insurance.

Sources: Barclay’s Capital; A.M. Best.
Workers Compensation Operating Environment

The Weak Economy and Soft Market Have Made the Workers Comp Operating Increasingly Challenging
Workers Compensation Combined Ratio: 1973–2012P

Workers Comp Underwriting Results Are Deteriorating Markedly

Sources: A.M. Best; Insurance Information Institute.
Calendar Year Reserve Deficiency Increased in 2009

WC Loss and LAE Reserve Deficiency: Private Carriers

2009 Tabular Discount Is $5.3 Billion

Calendar Year

Consider all reserve discounts as deficiencies
Loss and LAE figures are based on NAIC Annual Statement data for each valuation date and NCCI latest selections
Source: NCCI analysis
Workers Compensation Medical & Indemnity Claim Cost Trends

Rising Medical Costs Exert Pressure While Indemnity Costs Rise Well Ahead of Wage Inflation
Workers Comp Medical Claim Costs Continue to Rise

Medical Claim Cost ($000s)

Annual Change 1991–1993: +1.9%
Annual Change 1994–2001: +8.9%
Annual Change 2002-2009: +6.6%

Cumulative Change = 224% (1993-2009p)

2009p: Preliminary based on data valued as of 12/31/2009
1991-2008: Based on data through 12/31/2008, developed to ultimate
Based on the states where NCCI provides ratemaking services; Excludes the effects of deductible policies
Average annual increase in WC medical severity from 1995 through 2009 was nearly twice the medical CPI (7.6% vs. 3.9%). New healthcare reform legislation is unlikely to have any impact on the gap.

WC Insurers Experience Inflation More Intensely than 2009 CPI Suggests

(Percent increase Dec 08 to Dec 09)

Healthcare Costs Are a Major WC Insurance Cost Driver. They Are Likely to Increase Faster than the CPI for the Next Few Years, at Least

Workers Compensation Lost-Time Claim Frequency Continues to Decline*

- Cumulative Change of -54.7% (1991 – 2008)
- Claim frequency fell in 4.0% in 2009, in part due to the recession

2009: Preliminary based on data valued as of 12/31/2009;
1991-2008: Based on data through 12/31/2008, developed to ultimate
Based on the states where NCCI provides ratemaking services including state funds; Excludes the effects of deductible policies

*Frequency is defined as the number of lost-time claims per 100,000 workers.
Med Costs Share of Total Costs is Increasing Steadily

Source: NCCI (based on states where NCCI provides ratemaking services).
WC Med Cost Will Equal 2/3 of Total by 2019 if Trends Hold

2019 Estimate

- Indemnity 33%
- Medical 67%

This trend will likely be supported by the increased labor force participation of workers age 55 and older.

Source: Insurance Information Institute.
Indemnity Claim Cost Trends

Indemnity Costs Continue to Rise at a Pace Above Wage Inflation
Workers Comp Indemnity Claim Costs Continue to Grow

Indemnity Claim Cost ($ 000s)

- Annual Change 1991–1993: -1.7%
- Annual Change 1994–2001: +7.3%
- Annual Change 2002–2008: +4.0%

2009p: Preliminary based on data valued as of 12/31/2009
1991–2008: Based on data through 12/31/2008, developed to ultimate
Based on the states where NCCI provides ratemaking services
Excludes the effects of deductible policies
WC indemnity severity is once again outpacing wage inflation.


Source: NCCI
Dollar Change* in Average Hourly Earnings, June 2006 – August 2010

The pace of hourly earnings growth has slowed dramatically since the onset of the economic downturn.

Average Hourly Earnings Grew at Least $0.05 in Every 3-Month Period Since June 2006.

*3-month net change, seasonally adjusted
Source: http://data.bls.gov/PDQ/servlet/SurveyOutputServlet
Recessions Cause Payrolls to Shrink. The 2001 Recession Saw a 2.0% Decline in Private Wages; the 2008-09 Dropoff was 6.3%.

Source: [http://data.bls.gov](http://data.bls.gov)
Where Will the Growth in WC Exposure Come From?

Industry and Occupation Growth Analysis

WC exposure growth the fastest in the health, science and tech areas

<table>
<thead>
<tr>
<th>Occupations</th>
<th>Percent change</th>
<th>Number of new jobs (in thousands)</th>
<th>Wages (May 2008 median)</th>
<th>Education/ training category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biomedical engineers</td>
<td>72</td>
<td>11.6</td>
<td>$77,400</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Network systems and data communications analysts</td>
<td>53</td>
<td>155.8</td>
<td>71,100</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Home health aides</td>
<td>50</td>
<td>460.9</td>
<td>20,460</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>Personal and home care aides</td>
<td>46</td>
<td>375.8</td>
<td>19,180</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>Financial examiners</td>
<td>41</td>
<td>11.1</td>
<td>70,930</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Medical scientists, except epidemiologists</td>
<td>40</td>
<td>44.2</td>
<td>72,590</td>
<td>Doctoral degree</td>
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<tr>
<td>Physician assistants</td>
<td>39</td>
<td>29.2</td>
<td>81,230</td>
<td>Master's degree</td>
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<tr>
<td>Skin care specialists</td>
<td>38</td>
<td>14.7</td>
<td>28,730</td>
<td>Postsecondary vocational award</td>
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<tr>
<td>Biochemists and biophysicists</td>
<td>37</td>
<td>8.7</td>
<td>82,840</td>
<td>Doctoral degree</td>
</tr>
<tr>
<td>Athletic trainers</td>
<td>37</td>
<td>6.0</td>
<td>39,640</td>
<td>Bachelor's degree</td>
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<tr>
<td>Physical therapist aides</td>
<td>36</td>
<td>16.7</td>
<td>23,760</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>Dental hygienists</td>
<td>36</td>
<td>62.9</td>
<td>66,570</td>
<td>Associate degree</td>
</tr>
<tr>
<td>Veterinary technologists and technicians</td>
<td>36</td>
<td>28.5</td>
<td>28,900</td>
<td>Associate degree</td>
</tr>
<tr>
<td>Dental assistants</td>
<td>36</td>
<td>105.6</td>
<td>32,380</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>Computer software engineers, applications</td>
<td>34</td>
<td>175.1</td>
<td>85,430</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Medical assistants</td>
<td>34</td>
<td>163.9</td>
<td>28,300</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>Physical therapist assistants</td>
<td>33</td>
<td>21.2</td>
<td>46,140</td>
<td>Associate degree</td>
</tr>
<tr>
<td>Veterinarians</td>
<td>33</td>
<td>19.7</td>
<td>79,050</td>
<td>First professional degree</td>
</tr>
<tr>
<td>Self-enrichment education teachers</td>
<td>32</td>
<td>81.3</td>
<td>35,720</td>
<td>Work experience in a related occupation</td>
</tr>
<tr>
<td>Compliance officers, except agriculture, construction, health and safety, and transportation</td>
<td>31</td>
<td>80.8</td>
<td>48,890</td>
<td>Long-term on-the-job training</td>
</tr>
</tbody>
</table>


Dollar growth in WC exposures should grow the most (at current rate levels) in the health and services industries

<table>
<thead>
<tr>
<th>Occupations</th>
<th>Number of new jobs (in thousands)</th>
<th>Percent change</th>
<th>Wages (May 2008 median)</th>
<th>Education/ training category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Registered nurses</td>
<td>581.5</td>
<td>22</td>
<td>$ 62,450</td>
<td>Associate degree</td>
</tr>
<tr>
<td>Home health aides</td>
<td>460.9</td>
<td>50</td>
<td>20,460</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>Customer service representatives</td>
<td>399.5</td>
<td>18</td>
<td>29,860</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>Combined food preparation and serving workers, including fast food</td>
<td>394.3</td>
<td>15</td>
<td>16,430</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>Personal and home care aides</td>
<td>375.8</td>
<td>46</td>
<td>19,180</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>Retail salespersons</td>
<td>374.7</td>
<td>8</td>
<td>20,510</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>Office clerks, general</td>
<td>358.7</td>
<td>12</td>
<td>25,320</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>Accountants and auditors</td>
<td>279.4</td>
<td>22</td>
<td>59,430</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Nursing aides, orderlies, and attendants</td>
<td>276.0</td>
<td>19</td>
<td>23,850</td>
<td>Postsecondary vocational award</td>
</tr>
<tr>
<td>Postsecondary teachers</td>
<td>256.9</td>
<td>15</td>
<td>58,830</td>
<td>Doctoral degree</td>
</tr>
<tr>
<td>Construction laborers</td>
<td>255.9</td>
<td>20</td>
<td>28,520</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>Elementary school teachers, except special education</td>
<td>244.2</td>
<td>16</td>
<td>49,330</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Truck drivers, heavy and tractor-trailer</td>
<td>232.9</td>
<td>13</td>
<td>37,270</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>Landscaping and groundskeeping workers</td>
<td>217.1</td>
<td>18</td>
<td>23,150</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>Bookkeeping, accounting, and auditing clerks</td>
<td>212.4</td>
<td>10</td>
<td>32,510</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>Executive secretaries and administrative assistants</td>
<td>204.4</td>
<td>13</td>
<td>40,030</td>
<td>Work experience in a related occupation</td>
</tr>
<tr>
<td>Management analysts</td>
<td>178.3</td>
<td>24</td>
<td>73,570</td>
<td>Bachelor's or higher degree, plus work experience</td>
</tr>
<tr>
<td>Computer software engineers, applications</td>
<td>175.1</td>
<td>34</td>
<td>85,430</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>Receptionists and information clerks</td>
<td>172.9</td>
<td>15</td>
<td>24,550</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>Carpenters</td>
<td>165.4</td>
<td>13</td>
<td>38,940</td>
<td>Long-term on-the-job training</td>
</tr>
</tbody>
</table>

**SOURCE:** BLS Occupational Employment Statistics and Division of Occupational Outlook

Texas and California will see the most job growth through 2016, much of it in health and retail occupations.
The Economic Storm

What the Financial Crisis and Recession Mean for the Industry’s Exposure Base, Growth and Profitability
The Q4:2008 decline was the steepest since the Q1:1982 drop of 6.8%.

Recession began in Dec. 2007. Economic toll of credit crunch, housing slump, labor market contraction has been severe but modest recovery is underway.

Economic growth up sharply in late 2009 with rebuilding of inventories and stimulus. More moderate growth expected in 2010/11 but no “double dip”.

Demand Commercial Insurance Continues To Be Impacted by Sluggish Economic Conditions

* Estimates/Forecasts from Blue Chip Economic Indicators.
Source: US Department of Commerce, Blue Economic Indicators 7/10; Insurance Information Institute.
Length of US Business Cycles, 1929–Present*

Length of Expansions Greatly Exceeds Contractions

Average Duration**
Recession = 10.4 Mos
Expansion = 60.5 Mos

Duration (Months)

Month Recession Started

* Through July 2010. Assumes “official” end of recession was June 2009. ** Post-WW II period through end of most recent expansion.

Sources: National Bureau of Economic Research; Insurance Information Institute.
State Economic Growth Varied Tremendously in 2008

Percent Change in Real GDP by State, 2007–2008

Mountain, Plains States Growing the Fastest

- Rocky Mountain: 2.2%
- Plains: 2.0%
- Great Lakes: -0.4%
- New England: 1.0%
- Mideast: 1.3%
- Southeast: 0.0%
- Southwest: 1.7%
- Far West: 0.6%
- US: 0.7%

Highest Quintile: Washington, Oregon, Montana
Fourth Quintile: Nevada, Utah, New York
Third Quintile: Minnesota, North Dakota, Nebraska
Second Quintile: Iowa, South Dakota
Lowest Quintile: New Hampshire, Vermont, Connecticut

US Bureau of Economic Analysis
Labor Market Trends

Massive Job Losses Sapped the Economy and Commercial/Workers Comp Exposure, But Trend is Improving
Unemployment and Underemployment Rates:
Rocketed Up in 2008-09; Stabilizing in 2010?

January 2000 through August 2010, Seasonally Adjusted (%)

- **Traditional Unemployment Rate U-3**
- **Unemployment + Underemployment Rate U-6**

**Recession ended in November 2001**
- Unemployment kept rising for 19 more months
- Recession began in December 2007

- U-6 went from 8.0% in March 2007 to 17.5% in Oct 2009; Stood at 16.7% in July 2010

Unemployment rate was 9.6% in July
Unemployment peaked at 10.1% in Oct. 2009, highest monthly rate since 1983.
Peak rate in the last 30 years: 10.8% in Nov - Dec 1982

US Unemployment Rate

2007:Q1 to 2011:Q4F*

Rising unemployment eroded payrolls and workers comp’s exposure base.
Unemployment likely peaked at 10% in late 2009.

Unemployment forecasts remain stubbornly high through 2011

* = actual;          = forecasts
Sources: US Bureau of Labor Statistics; Blue Chip Economic Indicators (9/10); Insurance Information Institute
Unemployment Rates Vary Widely by State and Region: July 2010*

*Provisional figures for July 2010, seasonally adjusted.
Unemployment Rates Vary Widely by State and Region: July 2010* (cont’d)

<table>
<thead>
<tr>
<th>Region</th>
<th>State</th>
<th>Unemployment Rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southeast</td>
<td>FL</td>
<td>11.5%</td>
</tr>
<tr>
<td></td>
<td>MS</td>
<td>10.8%</td>
</tr>
<tr>
<td></td>
<td>SC</td>
<td>10.8%</td>
</tr>
<tr>
<td></td>
<td>GA</td>
<td>10.9%</td>
</tr>
<tr>
<td></td>
<td>KY</td>
<td>10.9%</td>
</tr>
<tr>
<td></td>
<td>TN</td>
<td>10.9%</td>
</tr>
<tr>
<td></td>
<td>NC</td>
<td>10.8%</td>
</tr>
<tr>
<td></td>
<td>AL</td>
<td>9.9%</td>
</tr>
<tr>
<td></td>
<td>WV</td>
<td>8.6%</td>
</tr>
<tr>
<td></td>
<td>AR</td>
<td>7.4%</td>
</tr>
<tr>
<td></td>
<td>LA</td>
<td>7.2%</td>
</tr>
<tr>
<td></td>
<td>VA</td>
<td>7.0%</td>
</tr>
<tr>
<td>Mid-Atlantic</td>
<td>NJ</td>
<td>9.7%</td>
</tr>
<tr>
<td></td>
<td>PA</td>
<td>9.3%</td>
</tr>
<tr>
<td></td>
<td>DE</td>
<td>8.4%</td>
</tr>
<tr>
<td></td>
<td>NY</td>
<td>8.2%</td>
</tr>
<tr>
<td></td>
<td>MD</td>
<td>7.1%</td>
</tr>
<tr>
<td>New England</td>
<td>RI</td>
<td>11.9%</td>
</tr>
<tr>
<td></td>
<td>MA</td>
<td>9.0%</td>
</tr>
<tr>
<td></td>
<td>CT</td>
<td>8.9%</td>
</tr>
<tr>
<td></td>
<td>ME</td>
<td>8.1%</td>
</tr>
<tr>
<td></td>
<td>VT</td>
<td>6.0%</td>
</tr>
<tr>
<td></td>
<td>NH</td>
<td>5.8%</td>
</tr>
<tr>
<td></td>
<td>AK</td>
<td>7.7%</td>
</tr>
<tr>
<td></td>
<td>HI</td>
<td>6.3%</td>
</tr>
</tbody>
</table>

*Provisional figures for July 2010, seasonally adjusted.
The job gain and loss figures in 2010 are severely distorted by the hiring and termination of temporary Census workers. So far in 2010, 763,000 private sector jobs have been created.

Monthly Losses in Dec. 08–Mar. 09 Were the Largest in the Post-WW II Period

Job Losses Since the Recession Began in Dec. 2007 Peaked at 8.4 Mill in Dec. 09; Stands at 7.7 Million Through August 2010; 14.9 Million People are Now Defined as Unemployed

*Estimate based on Reuters poll of economists.

**Estimated Effect of Recessions* on Payroll (Workers Comp Exposure)**

- **Recessions in the 1970s and 1980s saw smaller exposure impacts because of continued wage inflation, a factor not present during the 2007-2009 recession.**

<table>
<thead>
<tr>
<th>Recession Dates (Beginning/Ending Years)</th>
<th>(Percent Change)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1948-1949</td>
<td>-4.4%</td>
</tr>
<tr>
<td>1953-1954</td>
<td>-2.0%</td>
</tr>
<tr>
<td>1957-1958</td>
<td>-1.1%</td>
</tr>
<tr>
<td>1960-1961</td>
<td>1.1%</td>
</tr>
<tr>
<td>1969-1970</td>
<td>3.7%</td>
</tr>
<tr>
<td>1973-1975</td>
<td>4.6%</td>
</tr>
<tr>
<td>1980</td>
<td>8.5%</td>
</tr>
<tr>
<td>1981-1982</td>
<td>3.5%</td>
</tr>
<tr>
<td>1990-1991</td>
<td>2.1%</td>
</tr>
<tr>
<td>2001</td>
<td>-0.5%</td>
</tr>
<tr>
<td>2007-2009</td>
<td>-3.6%</td>
</tr>
</tbody>
</table>

*Data represent maximum recorded decline over 12-month period using annualized quarterly wage and salary accrual data.

Source: Insurance Information Institute research; Federal Reserve Bank of St. Louis (wage and salary data); National Bureau of Economic Research (recession dates).
Frequency: 1926–2009
A Long-Term Drift Downward

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

Note: Recessions indicated by gray bars.
Crisis-Driven Exposure Drivers

Economic Obstacles to Growth in P/C Insurance, Including Workers Compensation
Business Bankruptcy Filings, 1980-2010:H1

There were 60,837 business bankruptcies in 2009, up 40% from 2008 and the most since 1993. 2010:H1 bankruptcies totaled 29,059, down 4% from H1:2009, but still very high by historical standards.

Significant Exposure Implications for All Commercial Lines. There Are Some Preliminary Indications that Business Bankruptcies Are Beginning to Decline.

% Change Surrounding Recessions

- 1980-82: 58.6%
- 1980-87: 88.7%
- 1990-91: 10.3%
- 2000-01: 13.0%
- 2006-09: 208.9%*

Source: American Bankruptcy Institute; Insurance Information Institute
Private Sector Business Starts, 1993:Q2 – 2009:Q4*

180,000 businesses started in 2009:Q4, the best quarter in 2009. 2009 was the slowest year for new business starts since 1993.

Business Starts Are Down Nearly 20% in the Current Downturn, Holding Back Most Types of Commercial Insurance Exposure

*Latest available as of September 12, 2010, seasonally adjusted
Recovery in Capacity Utilization is a Positive Sign for Insurance Exposure

Percent of Capacity Utilized (Manufacturing, Mining, Utilities)

“Full Capacity”

Recession began December 2007

Manufacturing capacity stood at 74.8% in July 2010, above the June 2009 low of 68.2% but well below the pre-crisis peak of 80%+

The closer the economy is to operating at “full capacity,” the greater the demand for insurance

Thank you for your time and your attention!

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