Workers Compensation (WC) Premium
WC Net Written Premium

Private Carriers and State Funds

$p$ Preliminary

Source: NAIC’s Annual Statement data; includes state insurance fund data for the following states: AZ, CA, CO, HI, ID, KY, LA, MD, MO, MT, NM, OK, OR, RI, TX, and UT

Each calendar year total for state funds includes all funds operating as a state fund in that year

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WC Direct Written Premium Change by Component

Private Carriers—NCCI States

<table>
<thead>
<tr>
<th>Component</th>
<th>2017 vs. 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payroll</td>
<td>5.3%</td>
</tr>
<tr>
<td>Loss Cost and Mix</td>
<td>-8.9%</td>
</tr>
<tr>
<td>Carrier Discounting</td>
<td>0.8%</td>
</tr>
<tr>
<td>Other Factors</td>
<td>3.1%</td>
</tr>
</tbody>
</table>

Change in Direct Written Premium -0.3%

Sources: Direct Written Premium Change: NAIC’s Annual Statement Statutory Page 14 for all states where NCCI provides ratemaking services
Components: NCCI’s Policy data

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Increases in Payroll Continue to Drive Changes in Premium

Forecast Change 2017–2018

Wage Rate 3.3%

Payroll 5.3%

Employment 1.9%

Prof. & Business Services
Trade, Transportation, & Utilities
Education & Health Services
Manufacturing
Financial Activities
Construction
Leisure & Hospitality
All Other

Sources: Moody’s Analytics and NCCI

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WC Approved Changes in Bureau Premium Level

Weighted by Effective Date—NCCI States

Percent

Calendar Year

03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19p

Values reflect changes in average premium levels between years, based on approved changes in advisory rates, loss costs, assigned risk rates, and rating values, as of 5/3/2019. IN and NC are filed in cooperation with state rating bureaus.

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Most Recent Changes in Bureau Premium Level
Voluntary Market, Excludes Law-Only Filings

Approved or pending premium level changes in advisory rates, loss costs, and rating values, as of 3/31/2019, as filed by the applicable rating organization, relative to those previously approved. IN and NC are filed in cooperation with state rating bureaus.
WC Impact of Discounting on Premium
Private Carriers—NCCI States

Percent

Policy Year

-25 -15 -5 5

98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18p

1.3

p Preliminary
Sources: NAIC’s Annual Statement Statutory Page 14 and NCCI’s Financial Call data
Rate/loss cost departure reflects carrier departure from NCCI rate level, which excludes a profit and contingency provision and expense constant
Based on data for all states where NCCI provides ratemaking services, excluding TX

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WC Impact of Discounting on Premium by Component

Private Carriers—NCCI States

Dividends

Schedule Rating

Rate/Loss Cost Departure

Policy Year

98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18p

p Preliminary
Sources: NAIC’s Annual Statement Statutory Page 14 and NCCI’s Financial Call data
Rate/loss cost departure reflects carrier departure from NCCI rate level, which excludes a profit and contingency provision and expense constant
Based on data for all states where NCCI provides ratemaking services, excluding TX

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Workers Compensation Results
WC Combined Ratio—Underwriting Gain Achieved

Private Carriers

Percent

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>98</td>
<td>100</td>
</tr>
<tr>
<td>99</td>
<td>100</td>
</tr>
<tr>
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<td>17</td>
<td>89.3</td>
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<tr>
<td>18p</td>
<td>83</td>
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</table>

p Preliminary
Source: NAIC’s Annual Statement data

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WC Combined Ratio by Component

Private Carriers

Dividends

Underwriting Expense Ratio

Loss Adjustment Expense (LAE) Ratio

Loss Ratio

Calendar Year

98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18p

p Preliminary
Source: NAIC’s Annual Statement data

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WC Investment Gain on Insurance Transactions

Ratio to Net Earned Premium, Private Carriers

Percent

Average (1998–2017): 12.9%

p Preliminary
Source: NAIC’s Annual Statement data
Investment Gain on Insurance Transactions includes Other Income
2013 is adjusted to exclude a material realized gain resulting from a single company transaction that involved corporate restructuring; unadjusted value is 19.4

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WC Pretax Operating Gain

Private Carriers

Percent

Average (1998–2017): 7.2%

-10 0 10 20 30

Calendar Year

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p Preliminary
Source: NAIC's Annual Statement data
Operating Gain equals 1.00 minus (Combined Ratio less Investment Gain on Insurance Transactions and Other Income)
2013 is adjusted to exclude a material realized gain resulting from a single company transaction that involved corporate restructuring; unadjusted value is 17.7
Workers Compensation Loss Drivers

2010 and 2011 adjusted primarily for significant changes in audit activity
p Preliminary, based on data valued as of 12/31/2018
Source: NCCI’s Financial Call data, developed to ultimate, premium adjusted to current wage and voluntary pure premium level, excludes high-deductible policies; based on data through 12/31/2017
Values displayed reflect the methodology underlying the most recent rate/loss cost filing
Includes all states where NCCI provides ratemaking services; NV is excluded through 2001, TX is excluded through 2006, and WV is excluded through 2011

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WC Lost-Time Claim Frequency

Average Annual Change 2013–2017, Private Carriers and State Funds—NCCI States

Source: NCCI’s Financial Call data, developed to ultimate, premium adjusted to current wage and voluntary pure premium level, excludes high-deductible policies; based on data through 12/31/2017
Values displayed reflect the methodology underlying the most recent rate/loss cost filing
Includes all states where NCCI provides ratemaking services

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WC Average Indemnity Claim Severity
Private Carriers and State Funds—NCCI States

Severity
($ Thousands)

<table>
<thead>
<tr>
<th>Year</th>
<th>Average Indemnity Claim Severity</th>
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</thead>
<tbody>
<tr>
<td>98</td>
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<tr>
<td>99</td>
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<td>24.4</td>
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</table>

Sources and Notes:
- Preliminary, based on data valued as of 12/31/2018
- Source: NCCI’s Financial Call data, developed to ultimate, excludes high-deductible policies; based on data through 12/31/2017
- Values displayed reflect the methodology underlying the most recent rate/loss cost filing
- Includes all states where NCCI provides ratemaking services; WV is excluded prior to 2008; NV and TX are excluded prior to 2004

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WC Average Indemnity Claim Severity
Private Carriers and State Funds—NCCI States

Cumulative Change in Indemnity Claim Severity: +100%
Cumulative Change in Wage Inflation: +80%

Accident Year

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Relative Growth Rates—Indemnity Severity vs. Wage Inflation

Private Carriers and State Funds—NCCI States

Indemnity claim severity grew 2.3% per year faster than wages.

Wage inflation outpaced changes in indemnity claim severity by 1.2% per year, on average.

Sources:
- Severity: NCCI’s Financial Call data, developed to ultimate, excludes high-deductible policies; based on data through 12/31/2017
- Values displayed reflect the methodology underlying the most recent rate/loss cost filing
- Includes all states where NCCI provides ratemaking services; severity changes exclude WV through 2008 and exclude NV and TX through 2004
WC Average Indemnity Claim Severity

Average Annual Change 2013–2017, Private Carriers and State Funds—NCCI States

Source: NCCI’s Financial Call data, developed to ultimate, excludes high-deductible policies; based on data through 12/31/2017
Values displayed reflect the methodology underlying the most recent rate/loss cost filing
Includes all states where NCCI provides ratemaking services

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WC Average Medical Lost-Time Claim Severity

Private Carriers and State Funds—NCCI States

Severity ($ Thousands)

<table>
<thead>
<tr>
<th>Accident Year</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
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<td>28.9</td>
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</tbody>
</table>

p Preliminary, based on data valued as of 12/31/2018
Source: NCCI's Financial Call data, developed to ultimate, excludes high-deductible policies; based on data through 12/31/2017
Values displayed reflect the methodology underlying the most recent rate/loss cost filing
Includes all states where NCCI provides ratemaking services; WV is excluded prior to 2008; NV and TX are excluded prior to 2004

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WC Average Medical Lost-Time Claim Severity

Private Carriers and State Funds—NCCI States

Cumulative Change in Medical Lost-Time Claim Severity: +150%

Cumulative Change in the Personal Health Care Chain-Weighted Price Index: +61%

Sources:
- Severity: NCCI's Financial Call data, developed to ultimate, excludes high-deductible policies; based on data through 12/31/2017.
- Values displayed reflect the methodology underlying the most recent rate/loss cost filing.
- Includes all states where NCCI provides ratemaking services; severity changes exclude WV through 2008 and exclude NV and TX through 2004.

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Relative Growth Rates—Medical Severity vs. Price Inflation

Private Carriers and State Funds—NCCI States

Medical lost-time claim severity grew 4.3% per year faster than medical care prices.

Changes in medical lost-time claim severity and medical care prices tracked one another.

Sources:
Severity: NCCI's Financial Call data, developed to ultimate, excludes high-deductible policies; based on data through 12/31/2017
Values displayed reflect the methodology underlying the most recent rate/loss cost filing
Includes all states where NCCI provides ratemaking services; severity changes exclude WV through 2008 and exclude NV and TX through 2004
PHC Chain-Weighted Price Index: Centers for Medicare & Medicaid Services

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WC Average Medical Lost-Time Claim Severity

Average Annual Change 2013–2017, Private Carriers and State Funds—NCCI States

Source: NCCI’s Financial Call data, developed to ultimate, excludes high-deductible policies; based on data through 12/31/2017
Values displayed reflect the methodology underlying the most recent rate/loss cost filing
Includes all states where NCCI provides ratemaking services

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Residual Market
WC Residual Market Premium

NCCI-Serviced WC Residual Market Pools

$ Billions

Policy Year

98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18p

p Preliminary, incomplete policy year projected to ultimate
Source: NCCI's Residual Market Quarterly Results
Includes Pool data for all NCCI-serviced WC Residual Market Pool states, valued as of 12/31/2018
Tennessee Reinsurance Mechanism premium is not included

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WC Residual Market Share

NCCI-Serviced WC Residual Market Pools

Percent

Calendar Year

p Preliminary
Source: NCCI's Residual Market Management Summary
Includes Pool and direct assignment data for all NCCI-serviced WC Residual Market Pool states

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WC Residual Market Combined Ratio

NCCI-Serviced WC Residual Market Pools

Percent

Policy Year

98 99 00 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18p

p Preliminary, incomplete policy year projected to ultimate
Source: NCCI’s Residual Market Quarterly Results
Includes Pool data and Plan expenses for pool members for all NCCI-serviced WC Residual Market Pool states, valued as of 12/31/2018
Tennessee Reinsurance Mechanism experience is not included in the combined ratios

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Thank You