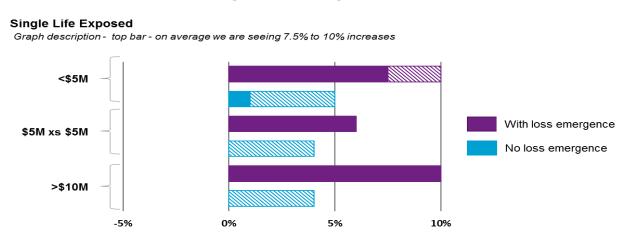


Reinsurance Pricing as of January 1, 2019





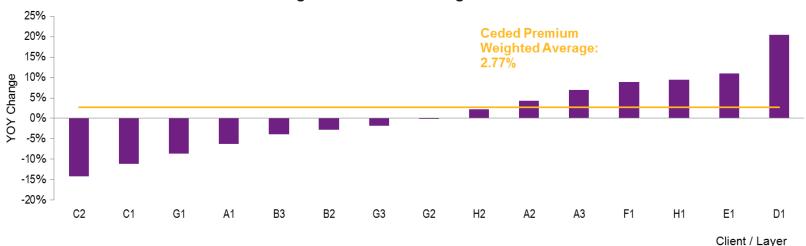
- Reinsurers push higher rates to try to offset primary rate decreases
- An increased large loss claim frequency has put pressure on working layer pricing. In particular 10m x 10m (no MAOL) layers have been significantly repriced over the last three years
 - There have been relatively few reinsurers writing working layer XOL
 - Some of these reinsurers have recently repriced programs and reduced lines. (Midwest Employers, XLCatlin, Hannover).

Working Layer Market continues to tighten

Workers' Compensation 1/1/2019 Willis Re Reinsurance Pricing Results

Renewal	Number of	Number	Ceded Premium Weighted Rate	Ceded Premium Weighted Median	
Cutoff Date Accounts of Layers		Change	Rate Change		
1/1/2019	8	15	+2.77%	+7.10%	

Achieved Risk Adjusted Rate Change Rolling 12 Months Through 1-1-2019

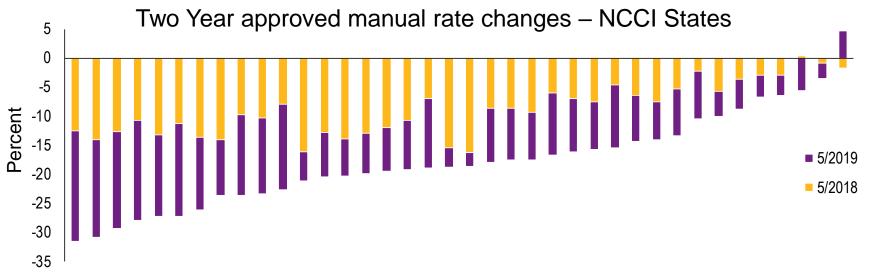


- We compiled 15 treaty layers from 8 different clients
- The average risk adjusted rate change was positive
- A number of accounts / layers have been excluded due to an underlying update to NCCI curves that indicate large exposure decreases YOY

© 2019 Willis Towers Watson. All rights reserved.

3

Approved Bureau Rate changes



TN CT COMTNHNC TX OR FL WV AKNM IN AL MDME IL SD AR OK IA GA UT MSSC NE KY AZ KS RI NV ID VT DCMOLA VA HI Source: NCCI AIS

- 14 states with 2 year decreases greater than 20%
- Overall approved changes are -9.7% (2018) and -10.1% (proj 2019)
- Significant portion of these decreases will roll into 2019/2020 earned premium

Approved rate decreases puts pressure on primary pricing

Primary Market Pricing

Changes in DWP (NCCI			
States)	2017	2018	
Carrier Estimated Payroll	4.4%	5.3%	Payroll wages +3.3 and job growth +1.9
Bureau loss costs & mix	-4.2%	-8.9%	Approved bureau rates projected to be – 10.1% for CY 2019
Carrier Discounting	0.4%	0.8%	Discounting is less than historical averages
Other	-0.4%	3.1%	
Combined	0.0%	-0.3%	

- Bureau rates are only part of the story
 - Payroll growth is positive due to both job growth and payroll rates
 - Experience has been excellent; development is down therefore loss costs are down
 - Insurers have increased LCM's, reduced schedule credits, implemented/enhanced territorial surcharges, etc., to offset bureau rate changes

Source: 2018 and 2019 NCCI State of the Line report

"other" includes - changes in audit impact, experience mods, mix of policy type, deductible credit amounts and mix of voluntary vs state act business

Final charged primary premium is softening slower than expected

Reinsurance Market Overview

Observed - Workers Comp - Reinsurance buyers

Working layers:

- Limits and retention Mostly stable with some increases in annual aggregate deductibles
- Buyers are increasing per person limits. Three common options:
 - \$10m x \$10m no MAOL (Maximum Any One Life), or
 - Per person capacity alongside the catastrophe program, or
 - Multi claimant warranty with no dollar restriction. (typically with programs attaching very high...such as \$100m or greater)

Catastrophe capacity:

- Multi year contracts can increase stability in capacity and pricing should there be an industry defining event.
 - Alternate layers expiring each year
 - Place 50% of each layer with alternate expiration dates
 - Buying higher limits as pricing softens

Large Loss Frequency

Synopsis of two mega claim studies

Willis Re, and more recently NCCI have presented studies on the development of mega claims.

Mega claims defined as total incurred of \$10 million or greater

Data Set Comparables		NCCI	Willis Re	
Accident years		2003 - 2016	2007 - 2016	
Losses developed at		12/31/2017	7/31/2017	
Geography		36 NCCI states	46 states	
			Includes CA, NY, PA	
			30% market share	
Claim count		77 (5.5 annually)	124 (12.4 annually)	
adjusted for -	Medical	Personal health Care Index	3.5% annually	
	Indemnity	Wage indices	2.0% annually	

Synopsis of Two Mega Claim studies

Mega claim frequency

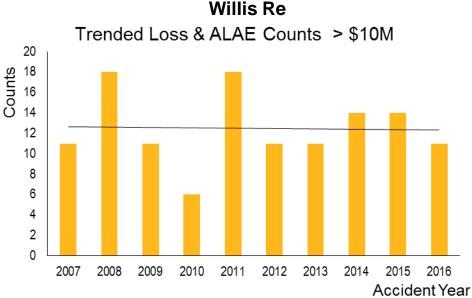
There is not a strong frequency trend noted in either study. The NCCI made note of the 2016 increase, but also noted a similar spike in 2006. The 2016 spike did not show up in the Willis Re data. Perhaps this is due to NCCI data including an extra six months of development, differences between the data sets, or a combination of different factors.

Both studies noted – whereas there is only a flat to mild upward frequency trend in mega claims, during the respective study periods there has been a significant decrease in overall lost time claim frequency. Mega claims are making up a larger proportion of overall claims.

NCCI Recent Accident Years Show an Uptick in Mega Claims at 24 Months



Sources: NCCl's Financial Call 31 data for 36 states—states where NCCl provides ratemaking services, excluding TX and WV. Claims on largedeductible policies are excluded. Inflation-adjusted values use Quarterly Census of Employment and Average Weekly Wage for indemnity, and Personal Health Care index for medical, and adjust to 2017.



Synopsis of Two Mega Claim studies

Cause of Accident and Type of Injury

Cause of Accident

NCCI	
Motor Vehicle	39%
Fall from Elevation	28%
Struck by	13%
Slips/Other Falls	5%
Caught between	4%
Burns/Rubbed/Abraded by	3%
Other	8%
	100%

Willis Re	
Matau Vahiala	2007
Motor Vehicle	29%
Falls, Trips or Slips	29%
Struck by	23%
Strains/Lifting	7%
Burns/Electrocution	4%
Other	8%
	100%

The cause of mega claim related accidents is very similar in the two studies. Because there is not an industry standard for assigning cause of accident, there are some differences between classifications used in the studies.

The leading injury types is also consistent in the studies. Again, because there is not an industry standard for assigning and defining injury type, there are differences between classifications.

Type of Injury

NCCI		Willis Re	
Multiple body parts	36%	Multiple body parts	56%
Head / brain	30%	Brain Injury	19%
Neck / Spine	27%	Amputation	10%
Chest Internal organs	3%	Disease/Disorder	8%
Lower back	2%	Burns	6%
Leg	1%	Spinal Cord	1%
arm/shoulder	1%	_	
	100%		100%

Synopsis of Two Mega Claim studies

Other Observations

NCCI

Job Classes

- Contracting by far is the industry group contributing the most to mega claims (43%). Second is Goods and Services (20%). The five top classes for 2001 2015 AY's are:
 - 1. 5645 Carpentry construction of residential dwellings not exceeding three stories
 - 2. 7219- Trucking NOC all employees and drivers
 - 3. 5551 Roofing-all kinds \$ drivers
 - 4. 8742- Salespersons or collectors-outside
 - 5. 8810 Clerical office employees

Medical Costs

- 1. Hospital Inpatient (38%)
- 2. Home health care (16%)
- 3. Drugs (15%)
- 4. Medical items (wheelchairs, etc), Supplies, Implants (14%)
- 5. Other/Various (17%)

Willis Re

- Frequency, leading causes of injury and injury type for \$2m claims is similar to \$10m claims
- There was no significant pattern shift in injury type and cause of accident over the 10 year duration of the study
- On a nominal basis, the study included
 - Over 4,300 claims > \$1m (average 2.9 claims per \$100m of ground up equivalent premium)
 - 1153 claims > \$2m
 - 87 claims > \$10m
- Companies with premium >\$1 billion reported a high frequency of \$2m and \$10m claims
- Over 70% of mega claims are from employees < 40 years old at date of accident

Willis Re disclaimers

This analysis has been prepared by Willis Limited and/or Willis Re Inc. and/or the "Willis Towers Watson" entity with which you are dealing ("Willis Towers Watson" is defined as Willis Limited, Willis Re Inc., and each of their respective parent companies, sister companies, subsidiaries, affiliates, Willis Towers Watson PLC, and all member companies thereof) on condition that it shall be treated as strictly confidential and shall not be communicated in whole, in part, or in summary to any third party without prior written consent from the Willis Towers Watson entity with which you are dealing.

Willis Towers Watson has relied upon data from public and/or other sources when preparing this analysis. No attempt has been made to verify independently the accuracy of this data. Willis Towers Watson does not represent or otherwise guarantee the accuracy or completeness of such data nor assume responsibility for the result of any error or omission in the data or other materials gathered from any source in the preparation of this analysis. Willis Towers Watson shall have no liability in connection with any results, including, without limitation, those arising from based upon or in connection with errors, omissions, inaccuracies, or inadequacies associated with the data or arising from, based upon or in connection with any methodologies used or applied by Willis Towers Watson in producing this analysis or any results contained herein. Willis Towers Watson expressly disclaims any and all liability, based on any legal theory, arising from, based upon or in connection with this analysis. Willis Towers Watson assumes no duty in contract, tort or otherwise to any party arising from, based upon or in connection with this analysis, and no party should expect Willis Towers Watson to owe it any such duty.

There are many uncertainties inherent in this analysis including, but not limited to, issues such as limitations in the available data, reliance on client data and outside data sources, the underlying volatility of loss and other random processes, uncertainties that characterize the application of professional judgment in estimates and assumptions. Ultimate losses, liabilities and claims depend upon future contingent events, including but not limited to unanticipated changes in inflation, laws, and regulations. As a result of these uncertainties, the actual outcomes could vary significantly from Willis Towers Watson's estimates in either direction. Willis Towers Watson makes no representation about and does not guarantee the outcome, results, success, or profitability of any insurance or reinsurance program or venture, whether or not the analyses or conclusions contained herein apply to such program or venture.

Willis Towers Watson does not recommend making decisions based solely on the information contained in this analysis. Rather, this analysis should be viewed as a supplement to other information, including specific business practice, claims experience, and financial situation. Independent professional advisors should be consulted with respect to the issues and conclusions presented herein and their possible application. Willis Towers Watson makes no representation or warranty as to the accuracy or completeness of this document and its contents.

This analysis is not intended to be a complete actuarial communication, and as such is not intended to be relied upon. A complete communication can be provided upon request. Subject to all terms of this Disclaimer, Willis Towers Watson actuaries are available to answer questions about this analysis.

Willis Towers Watson does not provide legal, accounting, or tax advice. This analysis does not constitute, is not intended to provide, and should not be construed as such advice. Qualified advisers should be consulted in these areas.

Willis Towers Watson makes no representation, does not guarantee and assumes no liability for the accuracy or completeness of, or any results obtained by application of, this analysis and conclusions provided herein.

Where data is supplied by way of CD or other electronic format, Willis Towers Watson accepts no liability for any loss or damage caused to the Recipient directly or indirectly through use of any such CD or other electronic format, even where caused by negligence. Without limitation, Willis Towers Watson shall not be liable for: loss or corruption of data, damage to any computer or communications system, indirect or consequential losses. The Recipient should take proper precautions to prevent loss or damage – including the use of a virus checker.

This limitation of liability does not apply to losses or damage caused by death, personal injury, dishonesty or any other liability which cannot be excluded by law.

This analysis is not intended to be a complete Financial Analysis communication. A complete communication can be provided upon request. Subject to all terms of this Disclaimer, Willis Towers Watson analysts are available to answer questions about this analysis.

Willis Towers Watson does not guarantee any specific financial result or outcome, level of profitability, valuation, or rating agency outcome with respect to A.M. Best or any other agency. Willis Towers Watson specifically disclaims any and all liability for any and all damages of any amount or any type, including without limitation, lost profits, unrealized profits, compensatory damages based on any legal theory, punitive, multiple or statutory damages or fines of any type, based upon, arising from, in connection with or in any manner related to the services provided hereunder.

Vendor Disclaimers – 1 of 2

Work containing Risk Management Solutions (RMS) output

"This report, and the analyses, models and predictions contained herein ("Information"), are based on data provided by Willis Re Inc., Willis Limited and their respective affiliates (hereinafter collectively "Willis") and compiled using proprietary computer risk assessment technology of Risk Management Solutions, Inc. ("RMS"). The technology and data used in providing this Information is based on the scientific data, mathematical and empirical models, and encoded experience of scientists and specialists (including without limitation: earthquake engineers, wind engineers, structural engineers, geologists, seismologists, meteorologists, geotechnical specialists and mathematicians). As with any model of physical systems, particularly those with low frequencies of occurrence and potentially high severity outcomes, the actual losses from catastrophic events may differ from the results of simulation analyses. Furthermore, the accuracy of predictions depends largely on the accuracy and quality of the data used by Willis. The Information is provided under license to Willis and is RMS' proprietary and confidential information and may not be shared with any third party without the prior written consent of both Willis and RMS. Furthermore, this Information may only be used for the specific business purpose specified by Willis and for no other purpose, and may not be used under any circumstances in the development or calibration of any product or service offering that competes with RMS.

The recipient of this Information is further advised that RMS is not engaged in the insurance, reinsurance, or related industries, and that the Information provided is not intended to constitute professional advice. RMS SPECIFICALLY DISCLAIMS ANY AND ALL RESPONSIBILITIES, OBLIGATIONS AND LIABILITY WITH RESPECT TO ANY DECISIONS OR ADVICE MADE OR GIVEN AS A RESULT OF THE INFORMATION OR USE THEREOF, INCLUDING ALL WARRANTIES, WHETHER EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY, AND FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL RMS (OR ITS PARENT, SUBSIDIARY, OR OTHER AFFILIATED COMPANIES) BE LIABLE FOR DIRECT, INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES WITH RESPECT TO ANY DECISIONS OR ADVICE MADE OR GIVEN AS A RESULT OF THE CONTENTS OF THIS INFORMATION OR USE THEREOF."

Work containing AIR Worldwide Corporation (AIR) Touchstone output

IMPORTANT NOTICE and DISCLAIMER

AIR Worldwide Corporation and Willis Re Inc. or Willis Limited

The attached Touchstone reports are provided to you in confidence, and you may not cause or permit disclosure, copying, display, loan, publication, transfer of possession (whether by sale, exchange, gift, operation of law or otherwise) or other dissemination of the Touchstone reports (or details of the methodology and analysis employed to develop the Touchstone reports) in whole or in part, to any third party without the prior written consent of Willis Re Inc. or Willis Limited and AIR Worldwide Corporation ("AIR").

Notwithstanding the foregoing, you may disclose the Touchstone reports associated with your reinsurance or risk transfer programs to insurance regulators and disclose, in confidence, to your rating agencies, reinsurers, actuarial consultants, managing general agencies, risk managers, investment bankers (but not in connection with the placement of any insurance-linked securities) and auditors (but in no event to any entity in the business of developing loss estimation models), provided that, in the event of any such disclosure, you clearly acknowledge in writing that AIR owns the exclusive right and title to the Touchstone reports and the methods employed to develop them.

You may not alter or remove any copyrights, trade secret, patent, proprietary and/or other legal notices contained on or in copies of the Touchstone reports. The existence of any such copyright notice on the Touchstone reports shall not be construed as an admission, or be deemed to create a presumption, that publication of such materials has occurred.

The Touchstone reports are intended to function as one of several tools which you will use in analyzing your estimated and potential losses from certain natural hazards. The estimation of hazards and potential losses involves uncertainties and depends on environmental, demographic and regulatory factors beyond the control of Willis Re Inc., Willis Limited and AIR. The Touchstone reports depend on data and inputs which you have supplied. The assumptions and methodologies used by AIR in creating Touchstone may not constitute the exclusive set of reasonable assumptions and methodologies, and the use of alternative assumptions and methodologies could yield materially different results. The loss probabilities indicated by the Touchstone reports are estimates of the magnitude of losses that may occur in the event of such natural hazards; they are not factual and do not predict future events. Actual loss experience can differ materially.

No responsibility is or shall be assumed or implied by Willis Re Inc., Willis Limited or AIR for loss or damage to you resulting from inaccuracies contained therein nor shall Willis Re Inc., Willis Limited or AIR be liable to you or others for any adverse results experienced in utilizing the Touchstone reports