

# Actuarial Roundtable Presented by Milliman

Chicago RIMS Chapter

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Doug Nishimura, ARM

# Topics



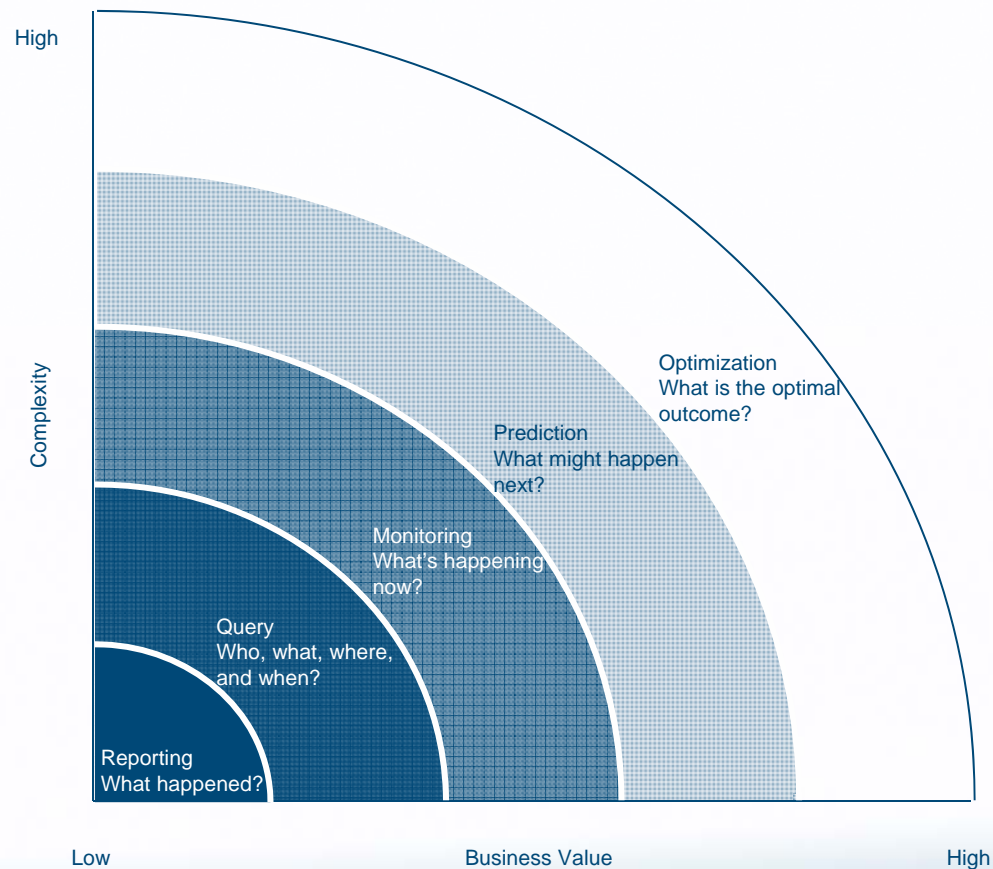
- **Topic A** – Determining if predictive modeling is the right option for your program
- **Topic B** – How to best obtain credit for risk management from your actuary
- **Topic C** – Gaining insight into presenting actuarial results by risk management to the C-Suite
- **Topic D** – Better handling unique risks: D&O, Asbestos/Environmental, Warranty, Cyber Liability

# Roundtable Procedures

- Conversation facilitated by actuary
- 25 minutes at each topic, then rotate
- Please share your own experiences!
- All views (actuary, risk managers, broker, claim administrator, etc.) and experience levels encouraged and appreciated

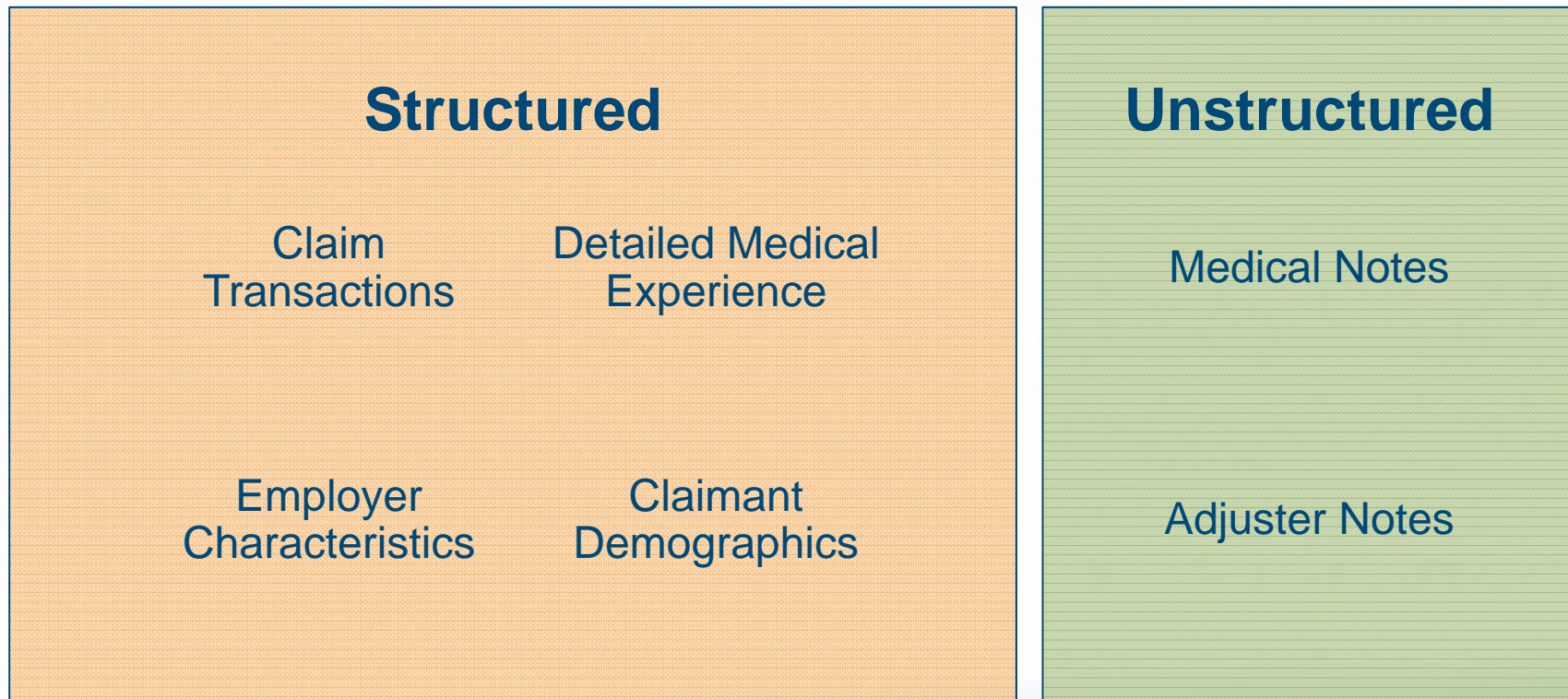
# Levels of Business Intelligence

There is significant business value to be gained above basic reporting.



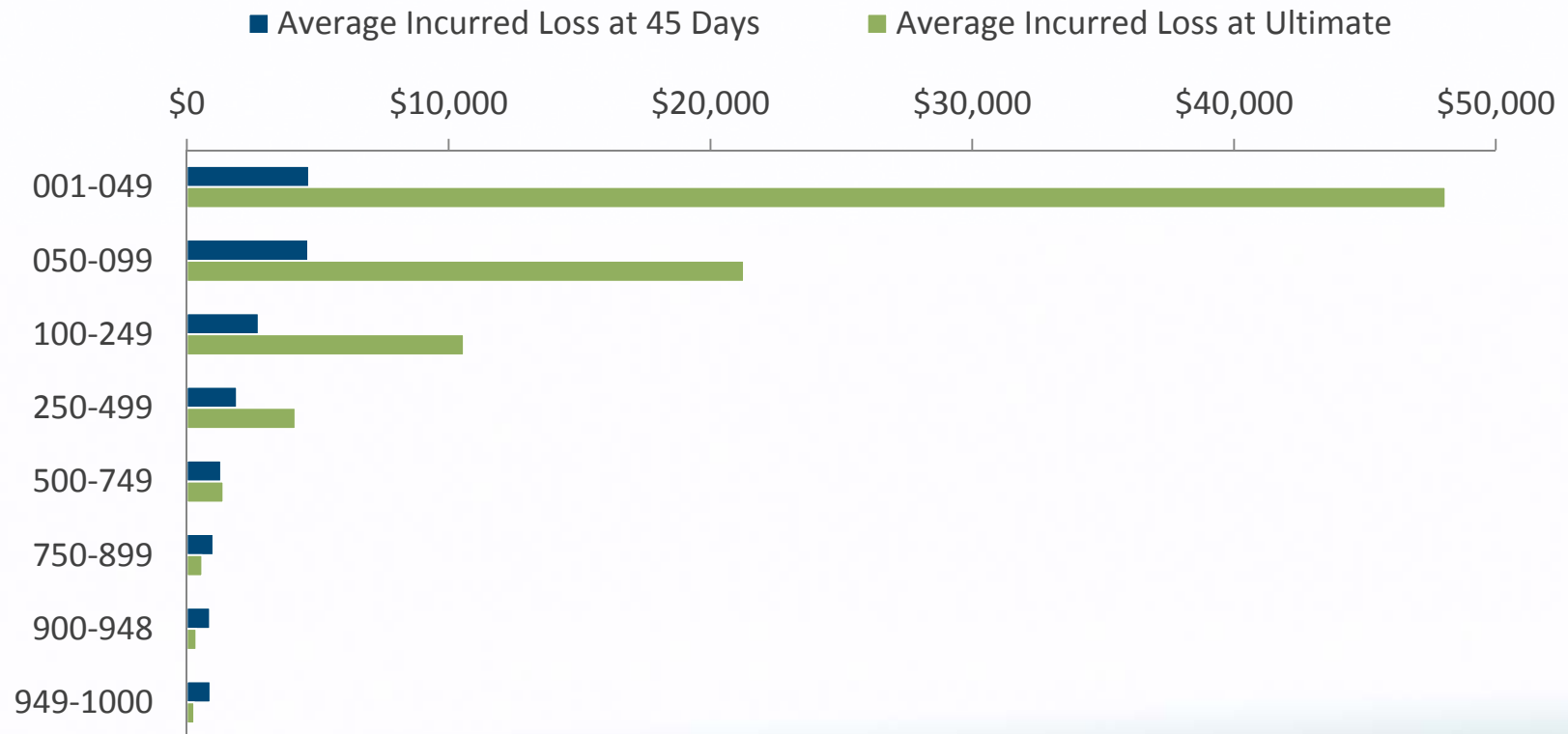
# Data Types

Text mining may be used to transform information in unstructured data, such as adjuster notes, into a structured form.



# Jumper Claim Scoring

Low Jumper Claim Scores indicate a high likelihood of a large claim increase.





# Dashboard



# Predictive Analytics – Talking Points

- How do you determine where to allocate risk management resources?
- When can we influence the outcome of a claim?
- What makes analytics understandable to you?
- Is pre-claim or post-claim analytics more interesting to you?
- What makes analytics most effective?



# Risk Management Credit



# Timing – Loss development



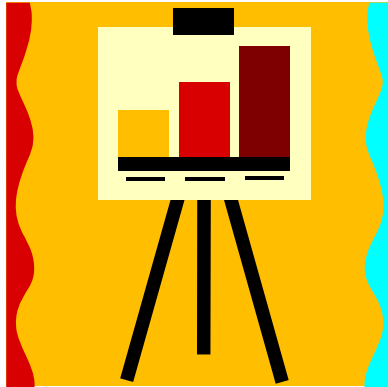
# Claims Handling – Quicker Payments/Reserving/Reporting



# New Safety Initiative



# Claim Analytics Support



## Other Support





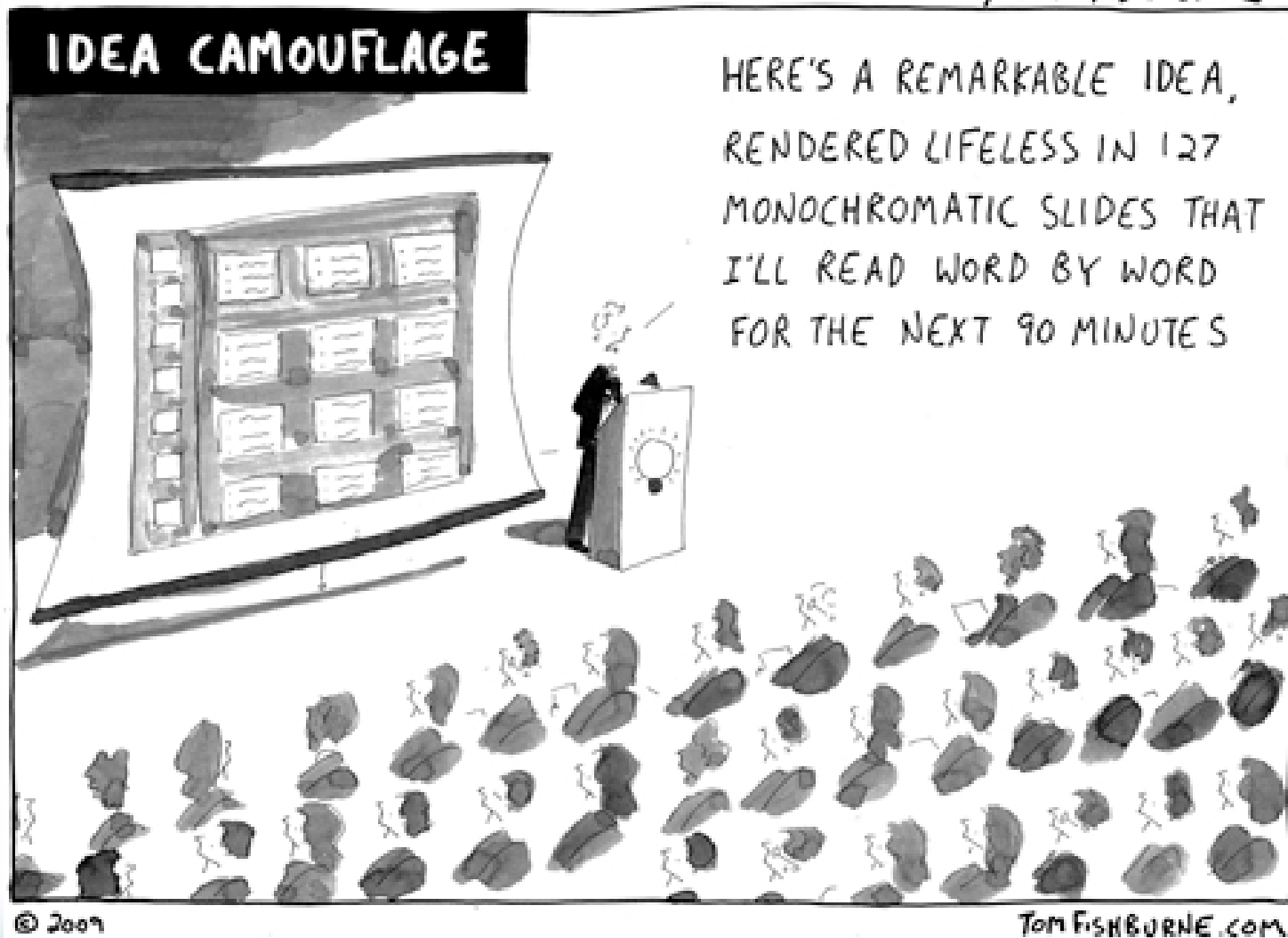
# Risk Management Credit – Talking Points

- What are effective techniques/strategies employed by risk management to better control losses?
- How long should it take to get credit?
- What can be provided as “ammunition” to showcase risk management?
- Who should the support be provided to?

# Actuarial Results To The C-Suite

BRAND CAMP

by Tom Fishburne



# How Detailed?

## Reported Losses & Allocated Loss Adjustment Expenses (Net of Salvage & Subrogation Received): Bodily Injury

Evaluation Point (measured in months)							
From - To	15	27	39	51	63	75	87
4/1/1996 - 3/31/1997	\$136,484	\$370,428	\$389,249	\$396,877	\$423,663	\$418,083	\$408,125
4/1/1997 - 3/31/1998	\$351,601	\$463,871	\$466,175	\$493,972	\$493,972	\$493,972	
4/1/1998 - 3/31/1999	\$433,694	\$575,926	\$604,917	\$605,677	\$600,902		
4/1/1999 - 3/31/2000	\$258,766	\$275,942	\$266,131	\$277,025			
4/1/2000 - 3/31/2001	\$192,010	\$264,536	\$243,061				
4/1/2001 - 3/31/2002	\$162,216	\$252,399					
4/1/2002 - 3/31/2003	\$201,106						

Link Ratios							
From - To	15 - 27	27 - 39	39 - 51	51 - 63	63 - 75	75 - 87	87 - Ult
4/1/1996 - 3/31/1997	2.714	1.051	1.020	1.067	0.987	0.976	1.040
4/1/1997 - 3/31/1998	1.319	1.005	1.060	1.000	1.000		
4/1/1998 - 3/31/1999	1.328	1.050	1.001	0.992			
4/1/1999 - 3/31/2000	1.066	0.964	1.041				
4/1/2000 - 3/31/2001	1.378	0.919					
4/1/2001 - 3/31/2002	1.556						

Indicated Link Ratios and Tail Factors							
From - To	15 - 27	27 - 39	39 - 51	51 - 63	63 - 75	75 - 87	87 - Ult
Median	1.353	1.005	1.030	1.000	0.993	0.976	1.040
All Accident Periods Averaged	1.560	0.998	1.030	1.020	0.993	0.976	1.040
All Accident Periods Weighted	1.435	1.010	1.027	1.015	0.994	0.976	1.040
Latest 3 Accident Periods Averaged	1.333	0.978	1.034	1.020	0.993	0.976	1.040
Latest 3 Accident Periods Weighted	1.293	0.998	1.030	1.015	0.994	0.976	1.040
Average excluding high & low	1.395	1.007	1.030	1.000	0.993	0.976	1.040
Selected Link Ratios	1.293	0.998	1.030	1.015	0.994	0.976	1.040

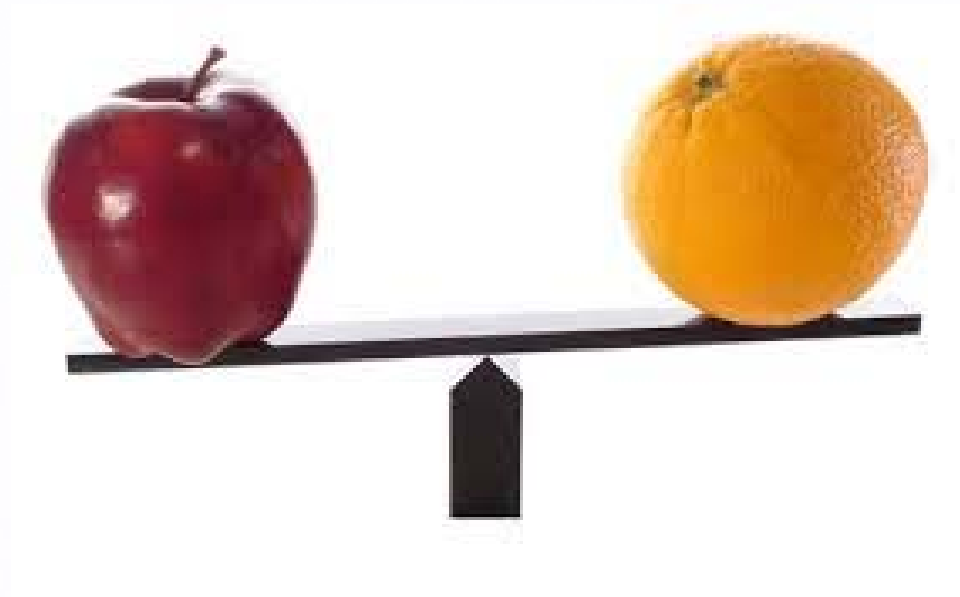
Development Factors							
From - To	15- Ult	27- Ult	39- Ult	51- Ult	63- Ult	75- Ult	87- Ult
For Selected Link Ratios	1.361	1.052	1.054	1.024	1.009	1.015	1.040

Ultimate Losses & Allocated Loss Adjustment Expenses							
For Accident Period Ending	3/31/2003	3/31/2002	3/31/2001	3/31/2000	3/31/1999	3/31/1998	3/31/1997
Ultimate	\$273,631	\$265,508	\$256,212	\$283,645	\$606,344	\$501,495	\$424,450

# Summarize Changes



# Benchmarks

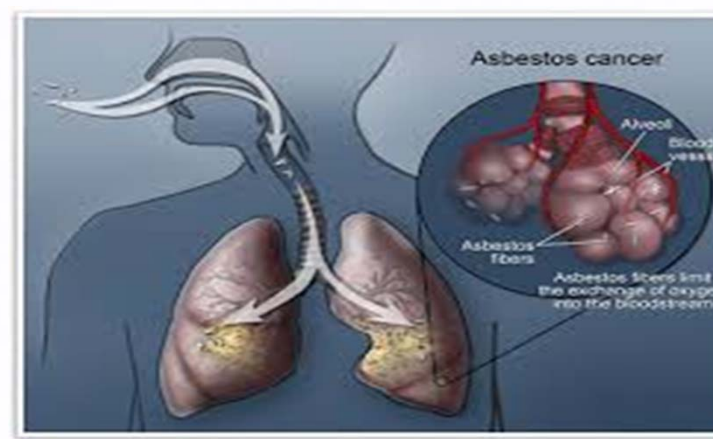


# Presenting to C-Suite – Talking Points

- What do you present to your C-Suite?
- Which changes and loss drivers are on their radar?
- Are graphs, charts or numbers more effective?
- Is it better to provide more or less detail?
- What are some appropriate benchmarks and how do you ensure they are on an “apples to apples” basis?



# Handling Unique Risks



# Broker is Important



# Cyber Liability – Talking Points

- Is cyber liability the domain of risk management or IT?
- Is coverage available at a reasonable price?
- How do you determine adequate retention/limit?
- What to do after a breach?

# D&O – Talking Points

- Should this risk be retained or insured?
- Specialized brokers
- Necessary coverage to get good board members
- Type of claims are unique to company structure

# Asbestos & Environmental – Talking Points

- Will the asbestos claims ever end?
- What policy takes precedence?
- Jurisdiction is extremely important
- Who will pay the claims?

# Warranty – Talking Points

- Claims handling is key
- Goodwill – cost vs. customer retention
- Beware of the bathtub
- Not all actuaries understand this liability



# Contact Information

Presenter	Phone	E-Mail
Richard Frese	(312) 499-5648	Richard.Frese@Milliman.com
Elizabeth Bart	(312) 499-5706	Elizabeth.Bart@Milliman.com
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Tony Bloemer	(312) 499-5594	Tony.Bloemer@Milliman.com
Doug Nishimura	(312) 499-5591	Doug.Nishimura@Milliman.com

### Richard C. Frese

FCAS, MAAA  
Consulting Actuary



#### CURRENT RESPONSIBILITY

Richard is an actuary in the Chicago Casualty practice of Milliman. He joined the firm in 2002.

#### EXPERIENCE

Richard's expertise in property and casualty primarily involves loss reserving and forecasting for self-insured clients in the area of medical malpractice and workers' compensation liability. He also has extensive experience in commercial lines, including workers' compensation, professional liability, general liability, auto liability, and property insurance. His clients include captives, Fortune 500 corporations, healthcare institutions, privately held companies, public entities, and risk-retention groups.

#### PUBLICATIONS

- "Does Your Self-Insured Program Need A Tune-up?," 2011, *Risk Management*
- "A Second Look At Your Self-Insurance Allocation," 2011, *The Self-Insurer*
- "How Do You Compare? Benchmarking Your Insurance Program," 2012, *Risk Management*
- "Workers' Compensation - The Other Self-Insured Liability," 2013, *Healthcare Financial Management*
- "Conversations With Your Actuary: Getting To The Right Number," 2013, *Healthcare Financial Management*
- "5 Strategies For Lessening The Self-insurance Impact Of The ACA," 2014, *Healthcare Financial Management*

#### PROFESSIONAL DESIGNATIONS

- Fellow, Casualty Actuarial Society
- Member, American Academy of Actuaries

#### EDUCATION

- BS, Actuarial Science, University of Illinois, Urbana-Champaign

#### COMMITTEES

- Joint CAS/SOA Committee on Career Encouragement – 2010 to Present
- Casualty Actuarial Society New Members Committee - 2010 to Present

#### PRESENTATIONS

- "Actuarial Professionalism & Responsibility," 2010 and 2012, Zurich North America Insurance Company
- "The Actuarial Language: Keys To Communication," 2011, 2012, 2013 Risk and Insurance Management Society, Inc., St. Louis chapter, Greater Quad Cities chapter, Indiana chapter, Ozarks Area chapter, Central Ohio chapter, Kansas City area chapter, Chicago chapter and Northeast Ohio chapter
- "Actuaries and Claims Management: A Critical Partnership," 2013 The Claims Association of Greater Chicago
- "A Statistical Approach To Validating Your Program Differentiation," 2013 National RIMS Conference
- "Reserve Setting, Financial Impact," 2013 Northwestern Ohio Self-Insurers Association
- "Your Actuarial Report: From The Loss Run To Meaningful Results", 2014 REBEX Conference



### Elizabeth Bart

FCAS, MAAA  
Consulting Actuary



#### CURRENT RESPONSIBILITY

Elizabeth is an actuary in the Chicago office of Milliman. She joined the firm in 2007. Prior to joining Milliman, Elizabeth had four years of experience with a large international insurance company.

#### EXPERIENCE

Elizabeth's area of expertise is property and casualty insurance, including loss reserving and ratemaking. She has extensive experience in commercial lines, including workers' compensation, professional liability, general liability, and auto liability. Elizabeth's clients include Fortune 500 corporations, healthcare institutions, privately held companies, commercial insurers, and risk retention groups.

#### PUBLICATIONS

- "Predictive Analytics for Self-Insureds," 2013, *Insight*
- "Ever-increasing unpaid claim liabilities: When does the growth stop?," 2013, *Insight*
- "Cyber risk management: Breaches, threats, and vulnerabilities," 2012, *Insight*
- "Product liability: On your shelves but not on your balance sheet?," 2012, *Insight*

#### PROFESSIONAL DESIGNATIONS

- Fellow, Casualty Actuarial Society
- Member, American Academy of Actuaries

#### COMMITTEES

- Committee on Professionalism Education

#### EDUCATION

- BA, Statistics, Northwestern University

#### PRESENTATIONS

- "Actuarial Insight: Financial Reporting and Beyond," 2013 IASA Spring Chicagoland Chapter meeting
- "Actuarial Roundtable," 2012 Risk and Insurance Management Society, Inc., Chicago chapter
- "Ethical Considerations for Brokers," 2011 Corvel Broker U



### Mike Paczolt

FCAS, MAAA  
Consulting Actuary



#### CURRENT RESPONSIBILITY

Mike Paczolt is a consulting actuary in the Chicago Casualty practice of Milliman. He joined the firm in 2007.

#### EXPERIENCE

Mike's area of expertise is property and casualty insurance, including pricing, reserving, actuarial opinions, new product development, mergers and acquisitions, and captive feasibility studies. His client base includes insurers, captives, self-insureds/large deductible programs, MGAs, retailers and start-up ventures.

In addition to his experience in traditional property and casualty exposures, Mike has a special focus on warranties, extended warranties, and service contracts. He speaks regularly at conferences such as the Warranty Chain Management and Warranty Innovations conferences, as well as being an Advisory Board Member of the Global Warranty & Service Contract Association (GWSCA).

In addition, Mike also concentrates on providing analytics and predictive modeling solutions to his client base by applying traditional modeling approaches such as Generalized Linear Models (GLMs) and Machine Learning approaches such as regression trees and clustering.

#### PUBLICATIONS

- *Insight* magazine, "Warranties: A Different Kind of Risk – Actuarial Assessment," Spring 2009, Issue 8
- *Contingencies* magazine, "Managing Warranty Goodwill," September/October 2010, Vol. 22, Issue 5
- *Insight* online, "Illinois Reform Expected to Result in 8.5%-12.75% Decrease in Workers' Compensation Costs," August 3, 2011
- *Accounting Today* magazine, "Leveling the Playing Field: A Second Look at Warranty Goodwill Liability, June 2012

#### PROFESSIONAL DESIGNATIONS

- Fellow, Casualty Actuarial Society
- Member, American Academy of Actuaries

#### AFFILIATIONS

- CAS Exam Committee, 2010 - 2013
- CAS Volunteer Task Force, 2010 – 2011
- Advisory Board Member, GWSCA, 2013-Current

#### EDUCATION

- BS, Actuarial Science, University of Illinois at Urbana-Champaign
- MS, Predictive Analytics, Northwestern University



### Tony F. Bloemer

FCAS, MAAA

Principal & Consulting Actuary



#### CURRENT RESPONSIBILITY

Tony is a Principal and Consulting Actuary in the Chicago Casualty practice of Milliman. He joined the firm in 1998.

#### EXPERIENCE

Tony is a Fellow of the Casualty Actuarial Society and a Member of the American Academy of Actuaries. Tony's area of expertise is property and casualty insurance, including loss reserving and ratemaking. Tony has extensive experience in commercial lines, including workers' compensation, professional liability, general liability, auto liability, and extended warranty insurance. Tony's clients include Fortune 500 corporations, healthcare institutions, privately held companies, public entities, commercial insurers, reinsurers and risk retention groups.

#### EDUCATION

- BS, Actuarial Science, University of Illinois at Urbana-Champaign

#### PROFESSIONAL DESIGNATIONS

- Fellow, Casualty Actuarial Society
- Member, American Academy of Actuaries

#### COMMITTEES

- Casualty Actuarial Society Professionalism Committee – 2005 to 2008
- Casualty Actuarial Society Syllabus Committee Liaison – 2008 to 2010
- Casualty Actuarial Society Exam Committee – 2006 to 2014
- Casualty Actuarial Society Education Implementation Task Force – 2013 to 2014

#### PRESENTATIONS AND PUBLICATIONS

- Illinois House of Representatives Legislative Hearings on Medical Liability Reform – 2005
- "The Actuarial Process" - 2005 Risk and Insurance Management Society, Inc., St. Louis chapter
- "What is IBNR?" - 2006 Missouri Self-Insurers Association Annual Meeting
- "Actuarial Professionalism" - 2007 Midwest Actuarial Forum
- "The Forgotten Hospital Liability: Booking IBNR for Workers' Compensation" - 2008 *Risk & Insurance Magazine*
- "Make Your Actuary Work For You," - 2009 Jointly sponsored Chicago Hospital Self-Insured Conference
- "The Actuarial Process: Medical Malpractice Liability," - 2011 McGradrey & Pullen, LLP, Chicago office
- "Utilizing Advanced Pricing Methodologies" - 2011 Warranty Chain Management Conference
- "Predictive analytics can lower self-insureds' costs" – September 10, 2012 *Business Insurance*
- "Actuarial Roundtable" – 2012 Risk and Insurance Management Society, Inc., Chicago Chapter
- "Explaining Workers' Compensation Liability and Trends to the C Suite" - 2014 Workers' Compensation Educational Conference
- "Preparing for the Boomers" – September, 2014 *Captive Review*



### Douglas K. Nishimura

ARM

Consultant



#### CURRENT RESPONSIBILITY

Doug is an Associate of Risk Management and serves as a consultant with the Chicago casualty practice of Milliman. He joined the firm in 1998.

#### EXPERIENCE

Doug's area of expertise is property and casualty insurance, including loss reserving and ratemaking. Doug has extensive experience in commercial lines, including professional liability, general liability, workers' compensation, auto liability, director and offices liability, unemployment compensation, and warranty contracts. Many of Doug's clients include commercial insurance buyers, healthcare institutions, physicians groups, and risk retention groups.

Prior to joining Milliman, Doug acquired 20 years of experience with another national actuarial consulting firm. Doug has experience in actuarial science, statistics, and system analysis. His varied experience provides him with a unique perspective to serve client needs.

#### PROFESSIONAL DESIGNATIONS

Associate of Risk Management

#### EDUCATION

BS, Quantitative Methods,  
University of Illinois, Chicago

