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# Presenting Your Data Graphically

September 20, 2016

CAS Casualty Loss Reserve Seminar

Chicago, Illinois

Brian Mullen, Director, Pricing Analytics & Technical Excellence, Zurich Kevin Roll, Specialist Leader, Deloitte Consulting LLP

#### Learning Objectives

Learning Objectives: At the end of this session, participants will...

- 1) communicate more effectively when representing data in graphical form
- 2) create better presentations, incorporating appropriate graphical representations of data
- 3) assess and differentiate the options for graphical representation of data

## Agenda

- Introduction
- Graphic Types
- Design Characteristics
- General PowerPoint Tips
- Closing







And a verbal discussion, in which the presenter simply reads the PowerPoint slides



#### Introduction

Why are you spending your time reading this when you should be listening to what I am saying instead?

Because when I put words up on the screen, you will read them.

And if I am talking while you are reading this, then I am wasting my breath, because we can't listen and read at the same time.

But this is what many presenters do.

If you (as the presenter) want people to listen to what you are saying, you must not be also giving them something to read.

Let them read, and when they are done, then talk.





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80 70 60 50 No exams 1-4 exams 40 5+ wo/ ACAS ACAS 30 FCAS 20 10 0 **Primary Insurer** Reinsurer Consultant Other

Percentage of Company Actuaries by Company Category

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120 100 80 FCAS ACAS 60 5+ wo/ ACAS 1-4 exams No exams 40 20 0 **Primary Insurer** Reinsurer Consultant Other

Percentage of Company Actuaries by Company Category

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**Growth Rates of GL and Cyber Insurance** 



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**Growth Rates of GL and Cyber Insurance** 





Vertical axes are logarithmic values

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## Graphic Types: Scatter Plots

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Sources: en.wikipedia.org/wiki/List\_of\_Milwaukee\_Brewers\_seasons and en.wikipedia.org/wiki/S%26P\_500\_Index

## Graphic Types: Tables

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## Graphic Types: Tables

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2015 Homeowners Incurred Losses by Peril (millions)



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2015 Homeowners Incurred Losses by Peril



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2015 Homeowners Incurred Losses by Peril



## Graphic Types: Stacked Bar Graphs

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## Graphic Types: Stacked Bar Graphs

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2015 Homeowners Incurred Losses by Peril



## Graphic Types: Tables

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2015 Homeowners Incurred Losses by Peril (millions)



#### Graphic Types: Bubble Charts

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#### Design Characteristics: General

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#### Design Characteristics: General

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### Design Characteristics: Gridlines

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#### Design Characteristics: Gridlines

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## Design Characteristics: Font

For on screen, use Arial Calibri

For handouts, use Garamond Times New Roman

AVOID decorative fonts in both places!



Work Comp Losses (millions) \$6,000 \$5,000 \$4,000 \$3,000 \$2,000 \$1,000 \$0 1976 1981 1986 1991 1996 2001 2006 2011

Work Comp Losses (millions), 1976-2015 \$6,000 \$5,000 \$4,000 \$3,000 \$2,000 \$1,000 \$0

#### Financial Index Results Compared to Insured Losses for the Index-Related Insurance Product X

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#### Design Characteristics: Alignment

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Premium	2010	2011	2012	2013	2014	2015
Gen. Liab.	3,425,636	3,528,405	3,634,257	3,743,285	3,855,584	3,971,252
Med Mal	652,384.52	767,432.68	882,781.31	998,437.42	1,014,406.18	1,130,694.94
Property	9,213,289	9,373,953	9,542,651	9,719,784	9,905,773	10,101,062

Premium (000's)	Gen. Liab.	Med Mal	Property
2010	3,425	652	9,213
2011	3,528	767	9,374
2012	3,634	883	9,543
2013	3,743	998	9,720
2014	3,856	1,014	9,906
2015	3,971	1,131	10,101

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**Growth Rates of GL and Cyber Insurance** 



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## Design Characteristics: Color



## Design Characteristics: Attribution

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#### General PowerPoint Tips

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Financial Index Results Compared to Insured Losses for the Index-Related Insurance Product X



#### Financial Index Results Compared to Insured Losses for the Index-Related Insurance Product X

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#### Insured Losses for Index-Related Insurance Product X Parallel the Financial Index With a Two-Year Lag

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# Closing

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• Additional resources and references are available in the handout



The information in this publication was compiled from sources believed to be reliable for informational purposes only. All sample policies and procedures herein should serve as a guideline, which you can use to create your own policies and procedures. Any and all information contained herein is not intended to constitute advice (particularly not legal advice). Accordingly, persons requiring advice should consult independent advisors when developing programs and policies. We do not guarantee the accuracy of this information or any results and further assume no liability in connection with this publication and sample policies and procedures, including any information, methods or safety suggestions contained herein. We undertake no obligation to publicly update or revise any of this information, whether to reflect new information, future developments, events or circumstances or otherwise. The subject matter of this publication is not tied to any specific insurance product nor will adopting these policies and procedures ensure coverage under any insurance policy.

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