

Actuarial Communications

Essential Elements & Graphic Stories

September 2019

CAS CLRS Meeting

Austin, Texas

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Kevin Roll, Specialist Leader, Deloitte Consulting LLP

Learning Objectives

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

- 1) be familiar with ASOP 41 – Actuarial Communications
- 2) communicate more effectively when representing data in graphical form
- 3) create better presentations, incorporating appropriate graphical representations of data
- 4) assess and differentiate the options for graphical representation of data

Agenda

- ASOP 41 – Actuarial Communications
- Introduction to Presenting
- Graphic Types
- Design Characteristics
- General PowerPoint Tips
- Closing

ASOP 41 – Actuarial Communications

Adopted December 2010, effective May 1, 2011

Scope

This standard applies to actuaries issuing actuarial communications within any practice area. This standard does not apply to communications that do not include an actuarial opinion or other actuarial findings.

Definitions

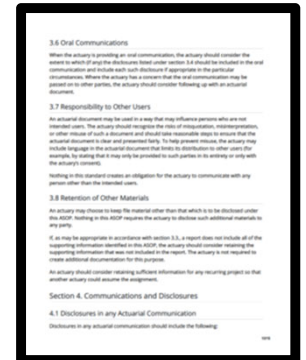
Actuarial Communication: Written, electronic or oral communication issued by an actuary with respect to Actuarial Services

Actuarial Document: An Actuarial Communication in any recorded form

Actuarial Finding: The result (including advice, recommendations, opinions, or commentary on another actuary's work) of Actuarial Services

Actuarial Report: Set of Actuarial Documents the actuary determines are relevant to specific Actuarial Findings

Actuarial Services: Professional services provided to a principal (i.e. client or employer) by an individual acting in the capacity of an actuary



ASOP 41 – Actuarial Communications

Actuarial Communications

- While considering the needs of the intended user, the communication's form and content should be appropriate for the circumstances, be clear, and issued in a timing manner.
- The communication should state actuary(ies) responsible for it.

The Actuarial Report

- Should be developed if the actuary intends the Actuarial Findings to be relied upon by the intended user.
- May comprise one or several documents – take care to organize and identify all its documents.
- Should clearly state the Actuarial Findings, and identify the methods, procedures, assumptions and data used with sufficient clarity that another qualified actuary could make an objective appraisal of the reasonableness of the work.
- Explanation of Material Differences From Prior Communication
- Should contain certain disclosures, unless actuary determines it is inappropriate to do so.

ASOP 41 – Actuarial Communications



Introduction to Presenting



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

Introduction to Presenting

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.

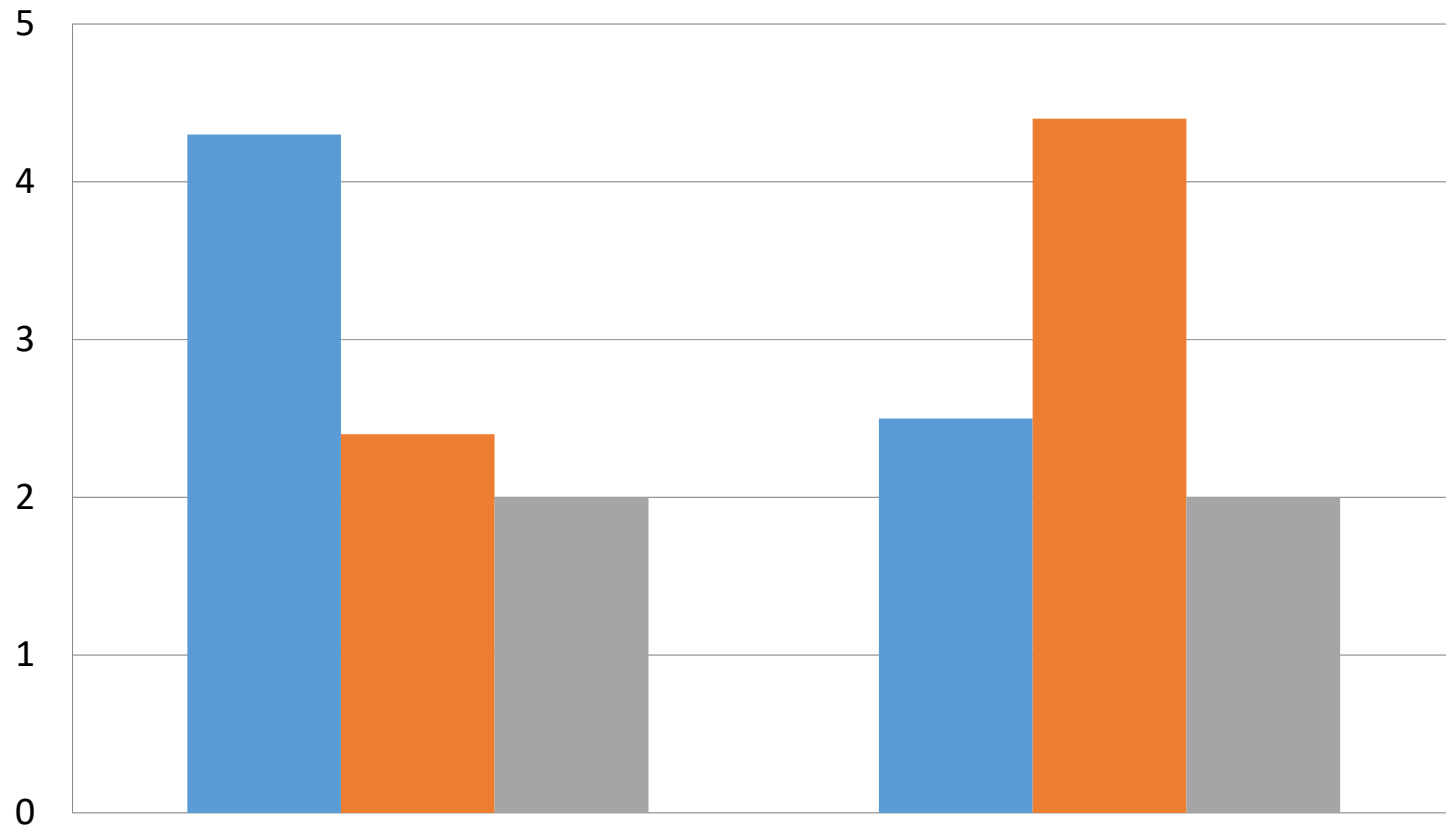
And if I am talking while you are reading this, then I am wasting my breath, because we can't listen and read at the same time.

But this is what many presenters do.

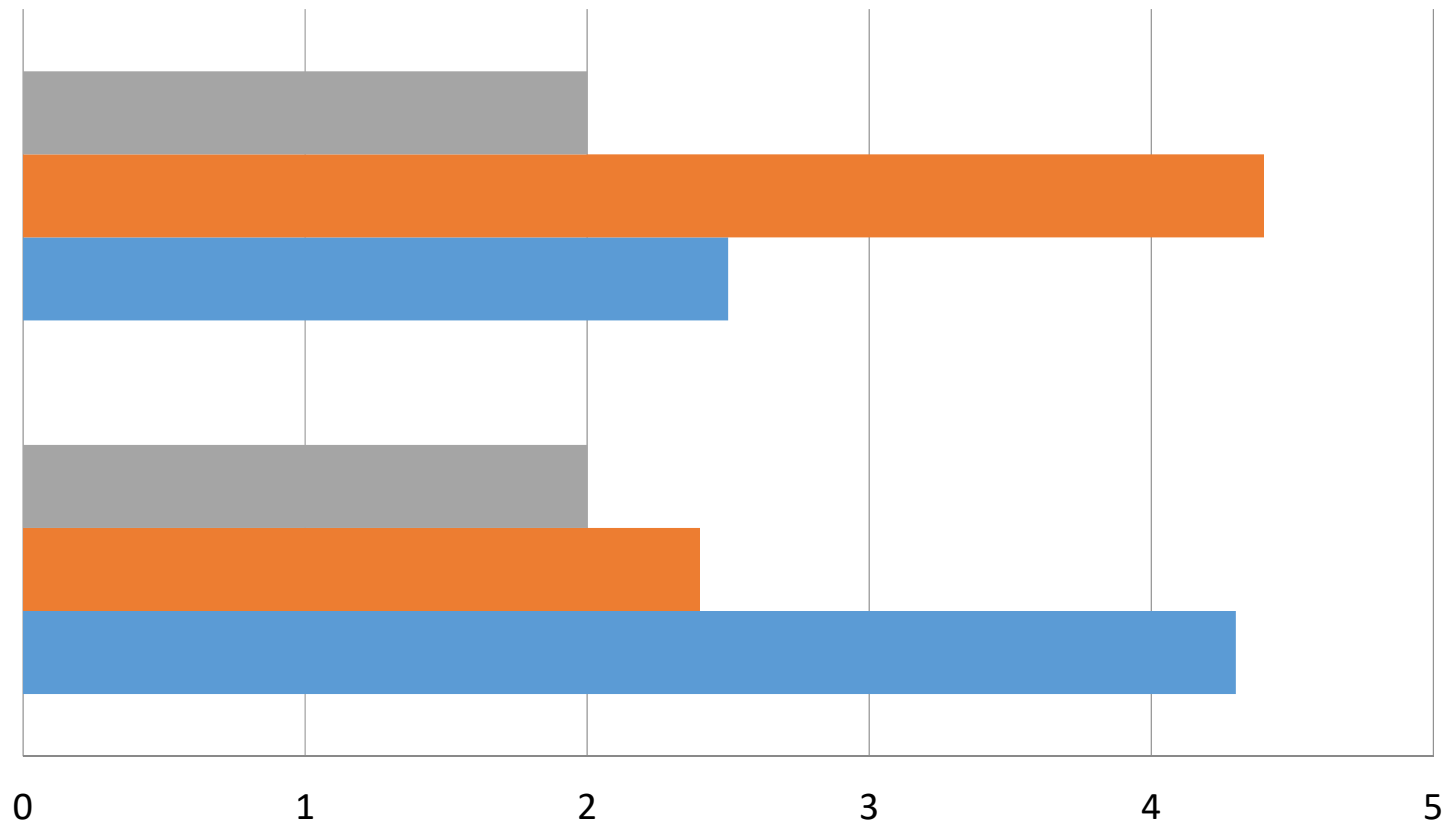
If you (as the presenter) want people to listen to what you are saying, you must not be also giving them something to read.

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

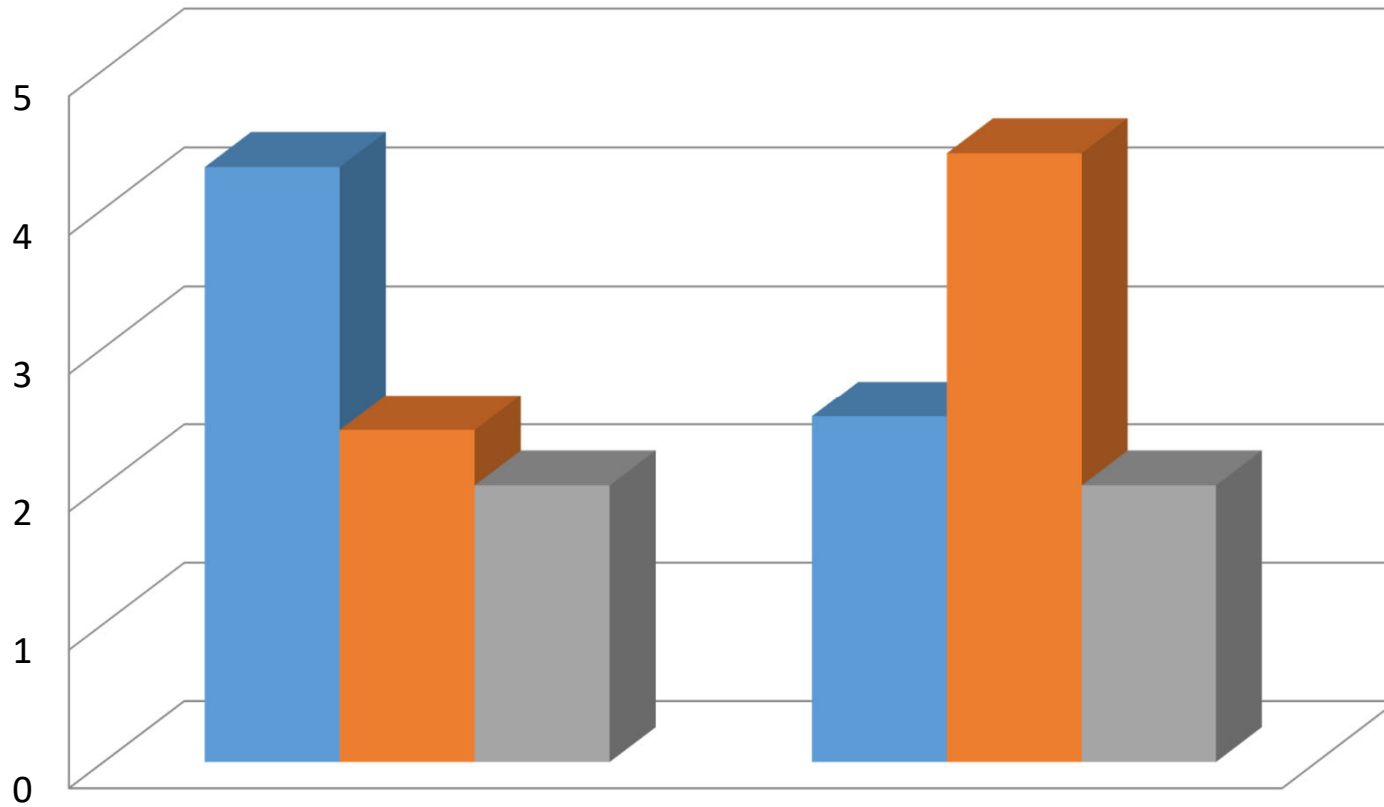
Graphic Types: Perception



Graphic Types: Perception

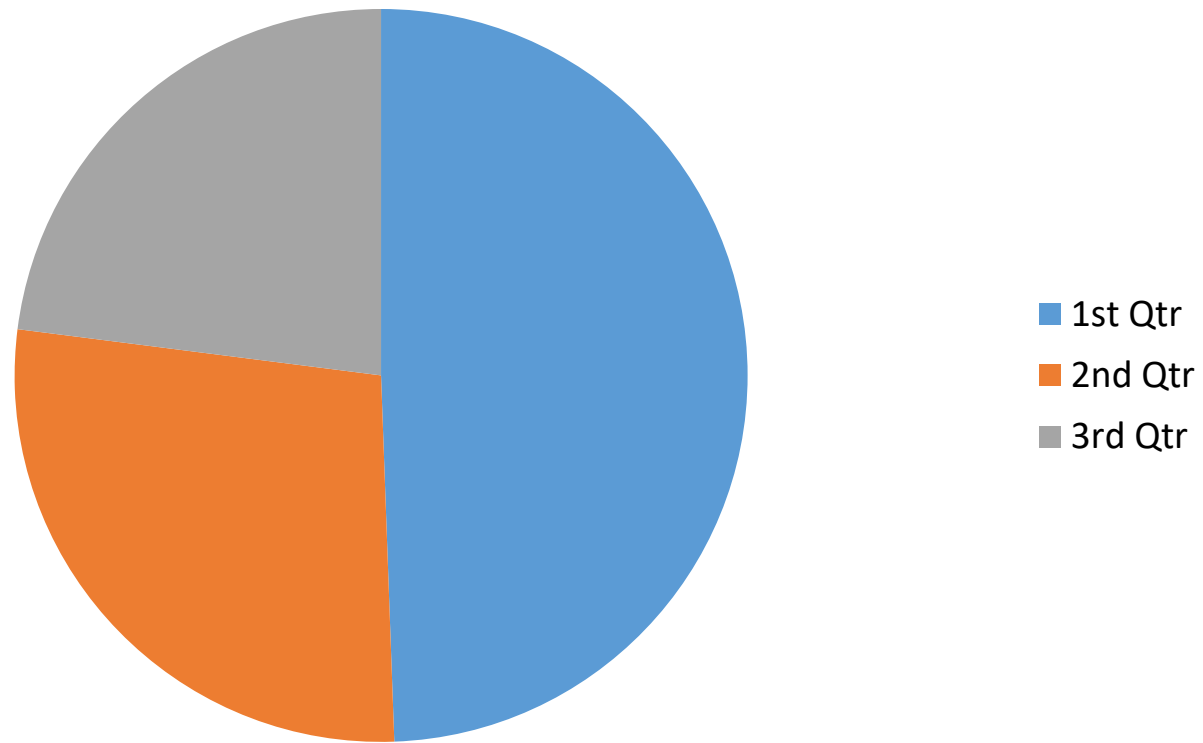


Graphic Types: Perception



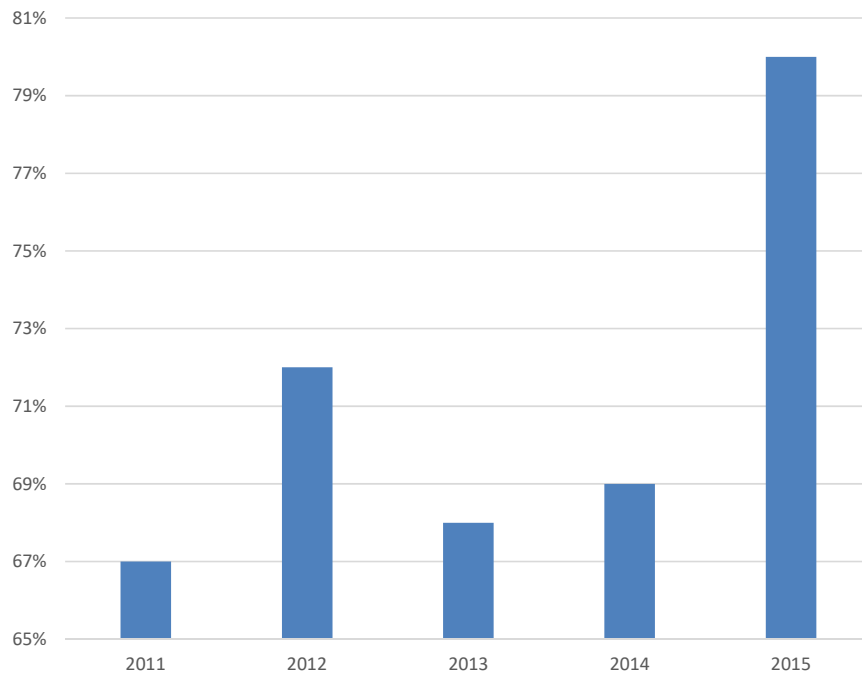
Graphic Types: Perception

Sales

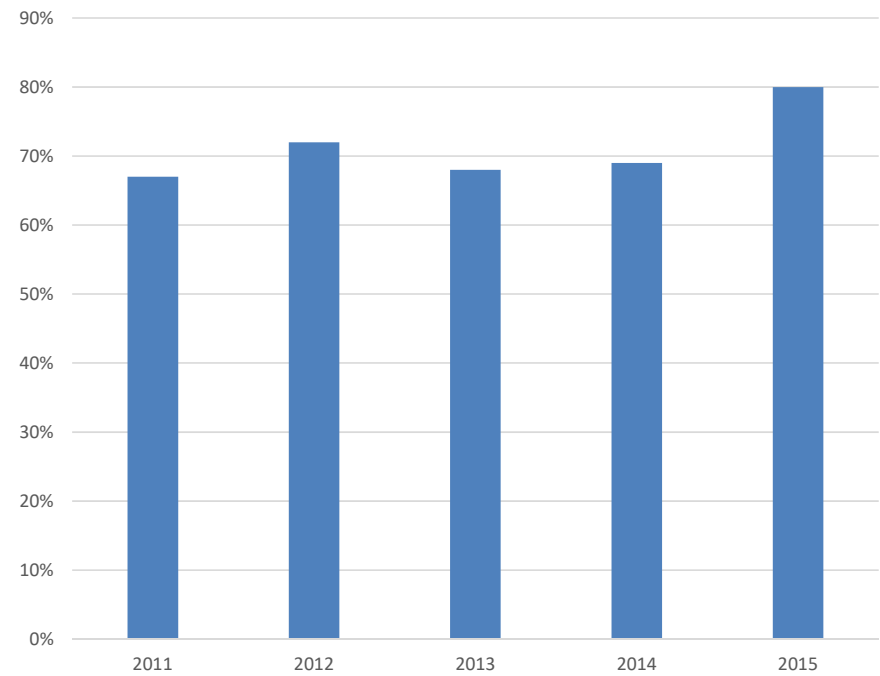


Graphic Types: Bar Charts

APD Loss Ratios

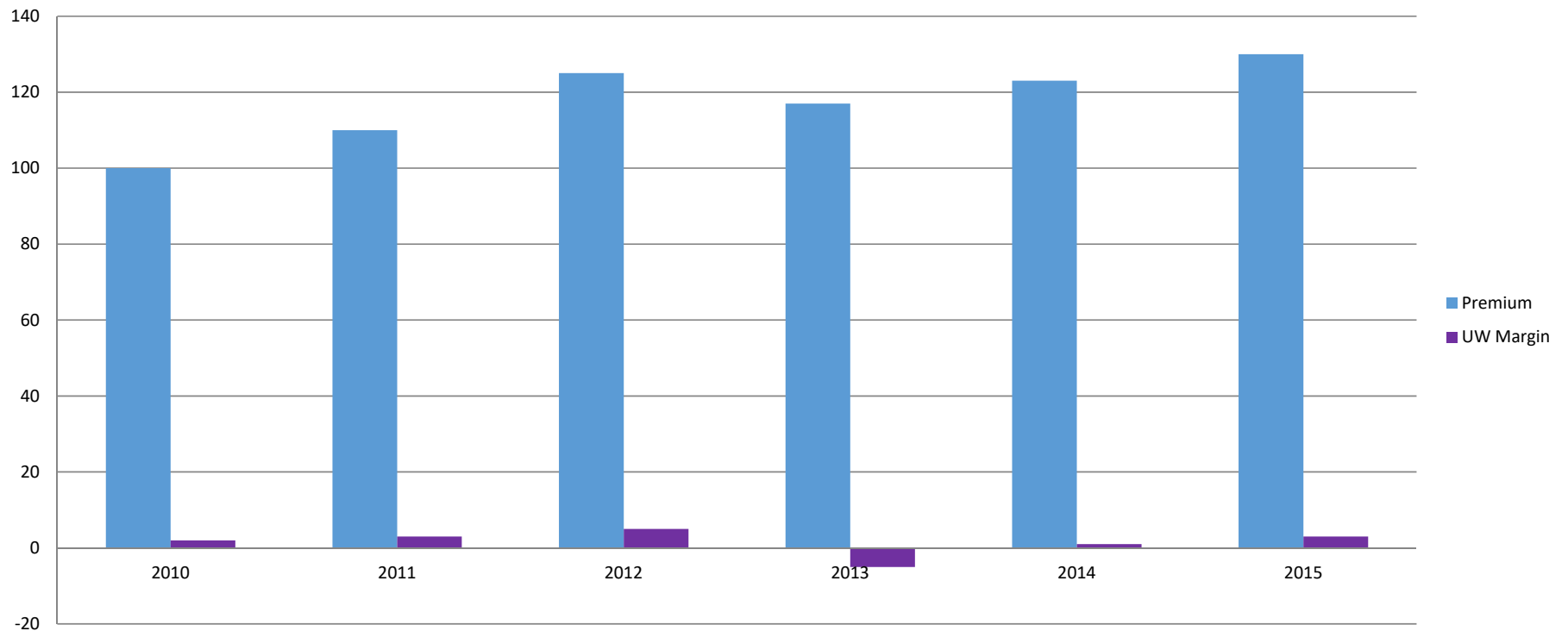


APD Loss Ratios



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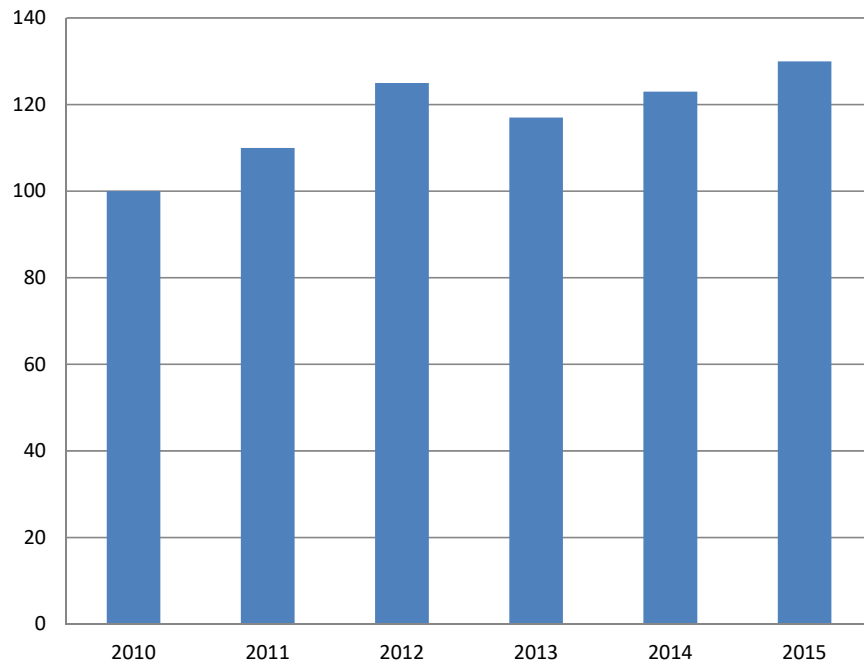
Graphic Types: Bar Charts



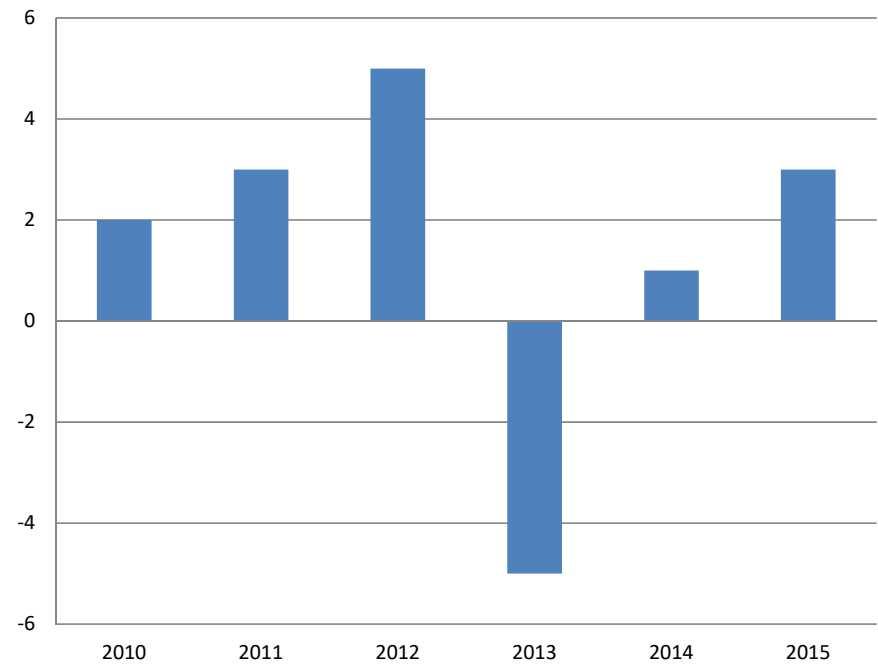
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Graphic Types: Bar Charts

Premium

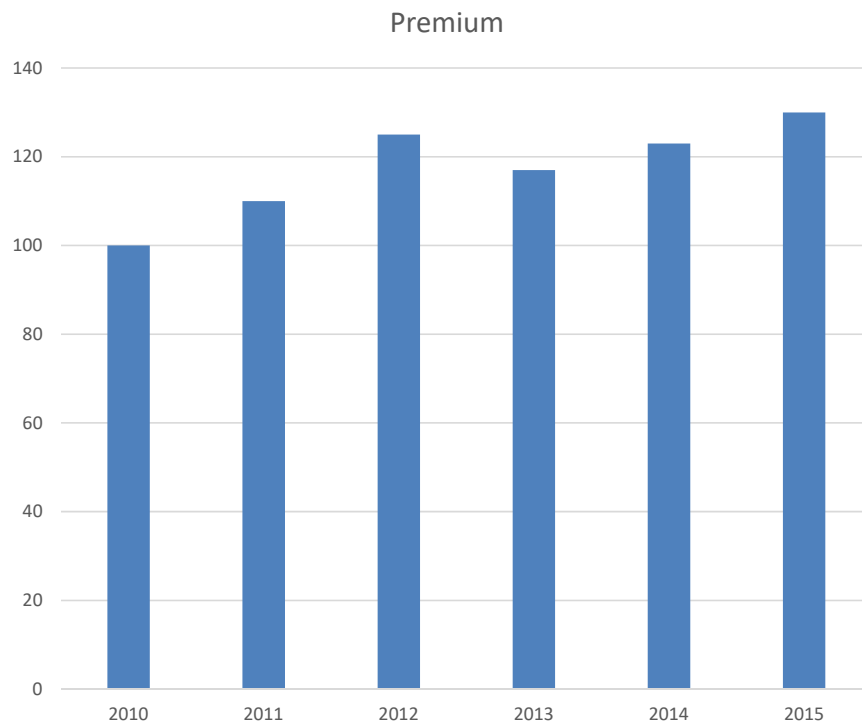


UW Margin



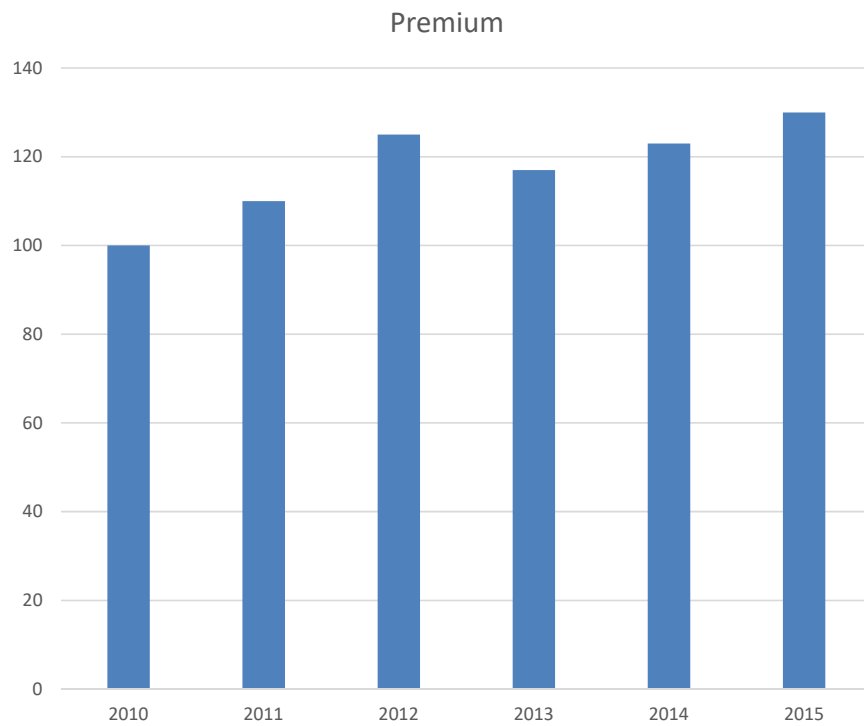
Data presented is fictitious and provided for illustration purposes only.

Graphic Types: Bar Charts



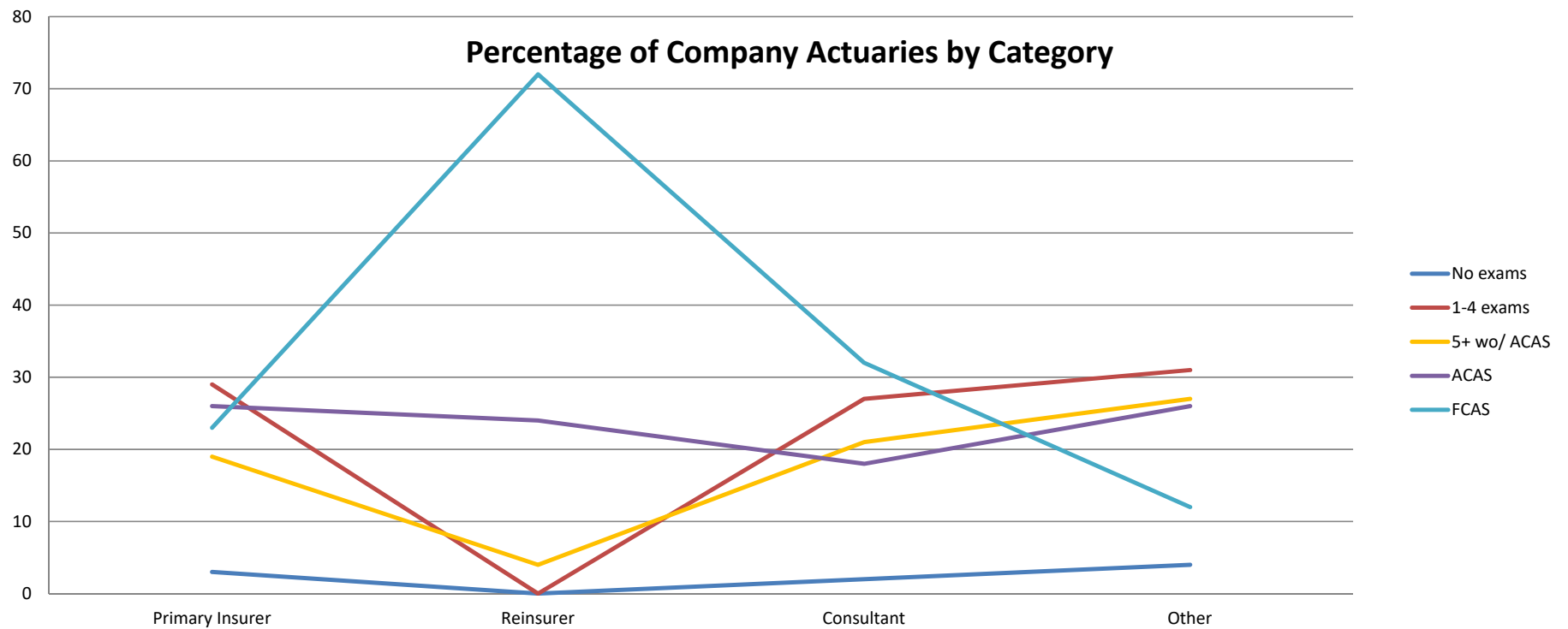
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Graphic Types: Bar Charts



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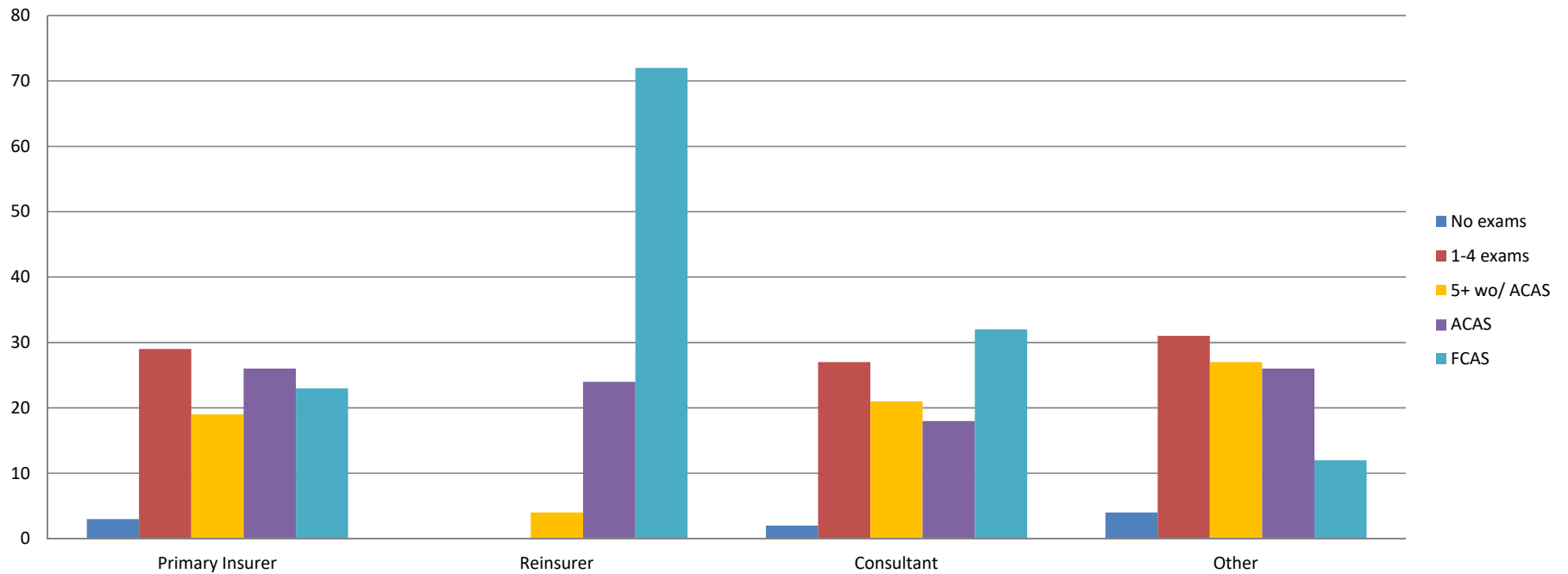
Graphic Types: Line Charts



Data presented is fictitious and provided for illustration purposes only.

Graphic Types: Line Charts

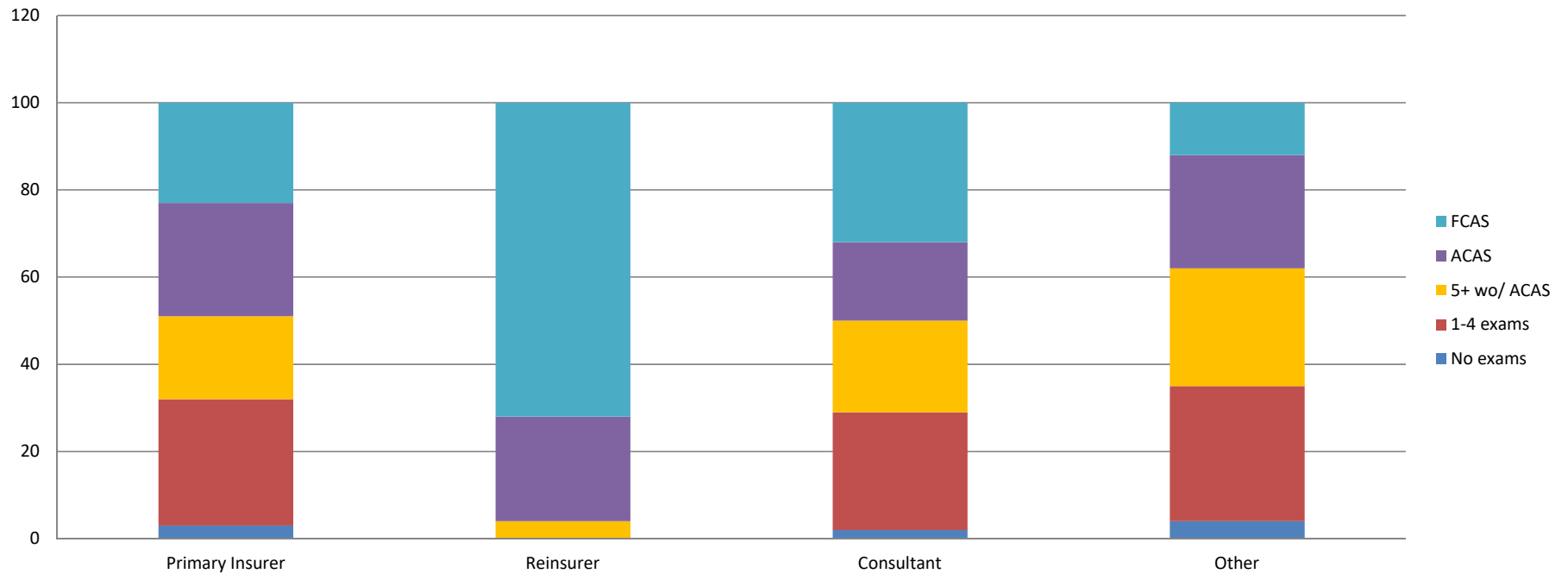
Percentage of Company Actuaries by Company Category



Data presented is fictitious and provided for illustration purposes only.

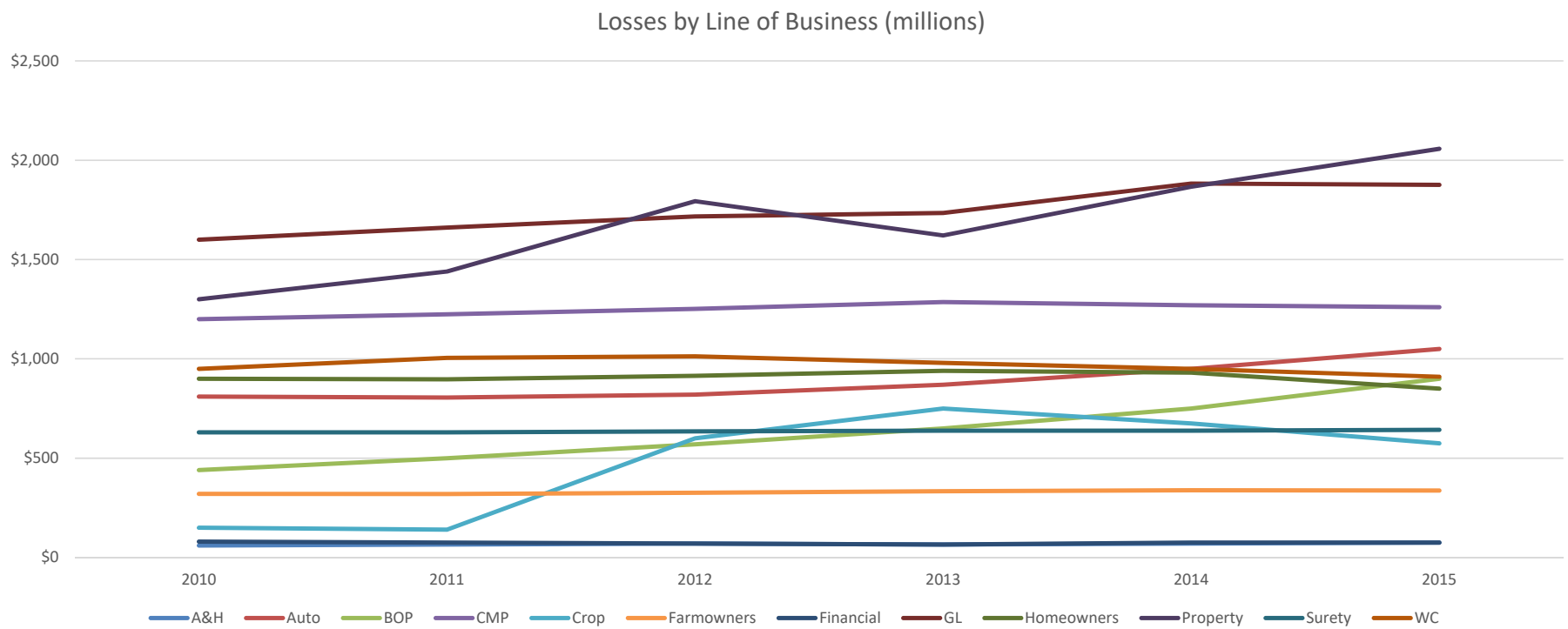
Graphic Types: Line Charts

Percentage of Company Actuaries by Company Category



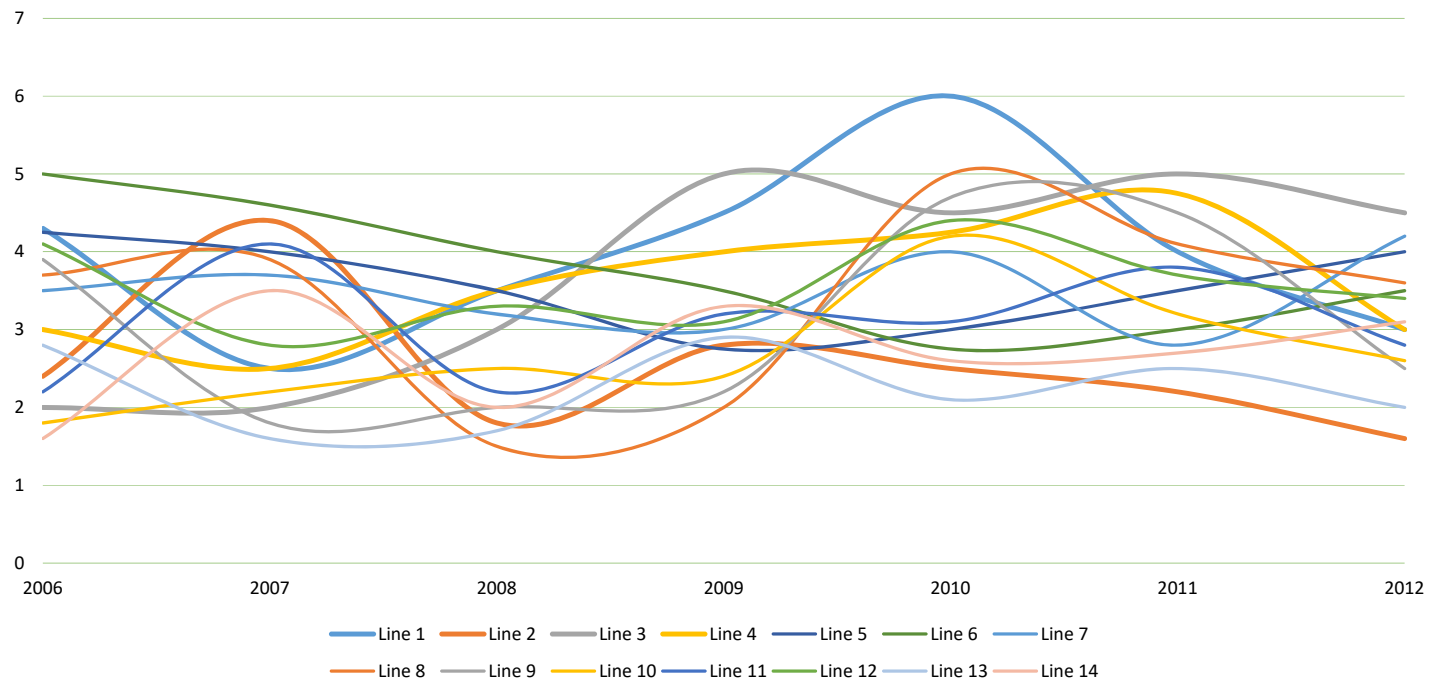
Data presented is fictitious and provided for illustration purposes only.

Graphic Types: Line Charts



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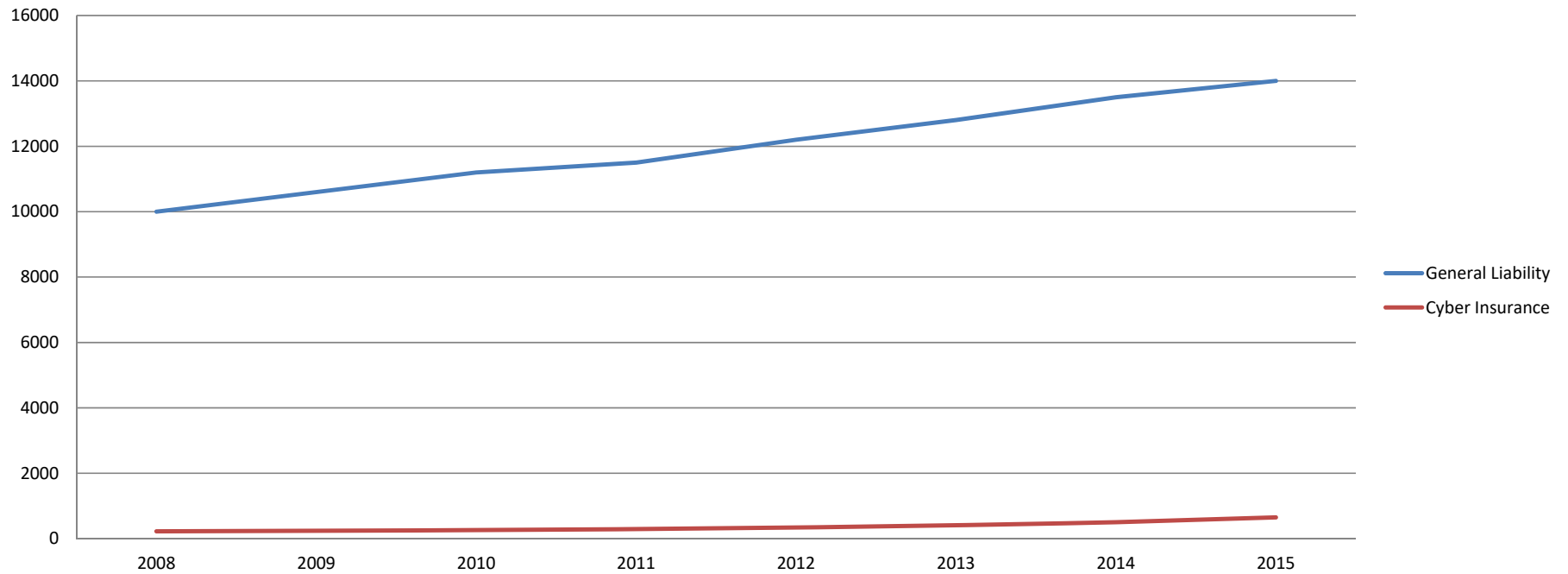
Graphic Types: Line Charts



Data presented is fictitious and provided for illustration purposes only.

Graphic Types: Line Charts

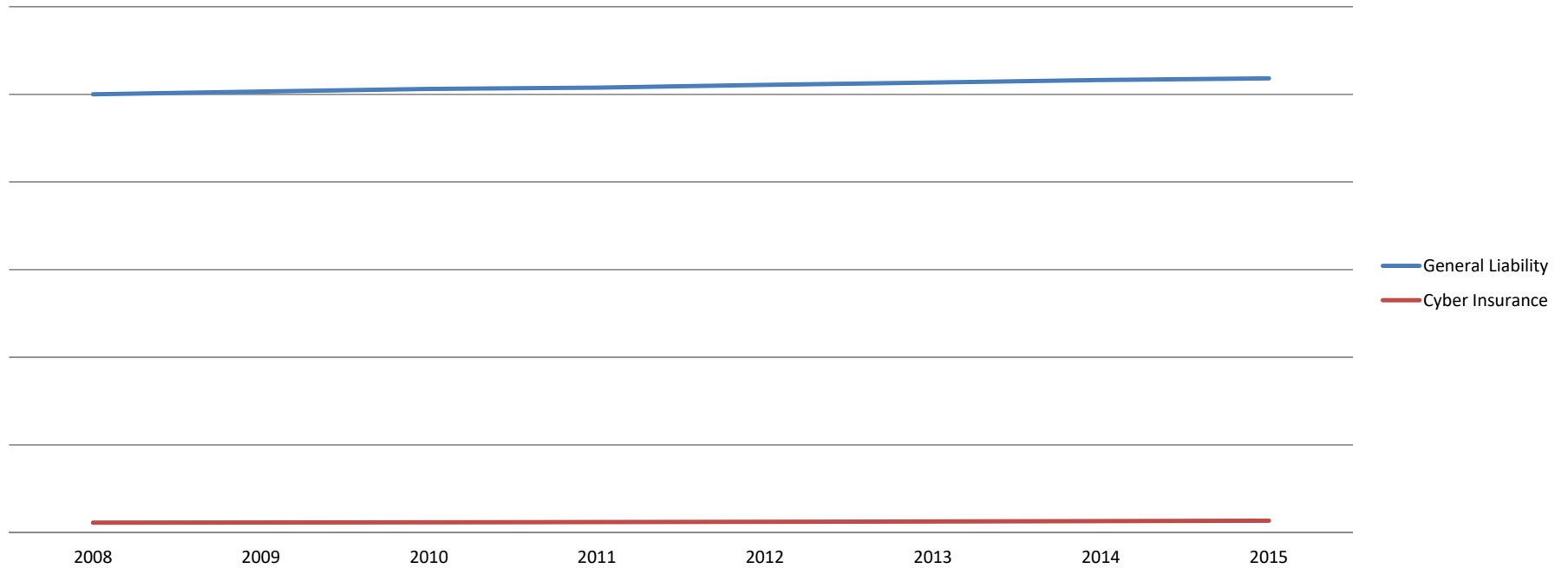
Growth Rates of GL and Cyber Insurance



Data presented is fictitious and provided for illustration purposes only.

Graphic Types: Line Charts

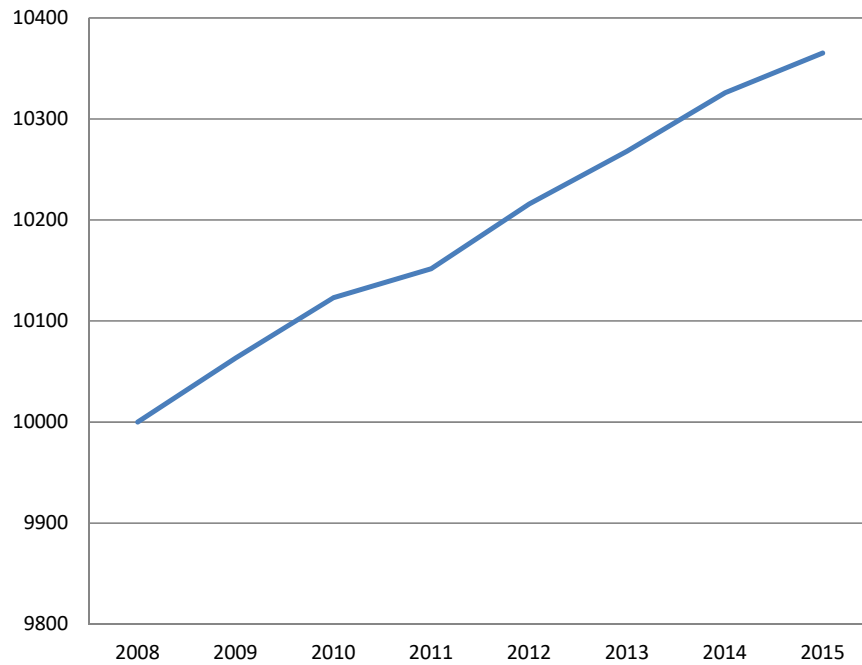
Growth Rates of GL and Cyber Insurance



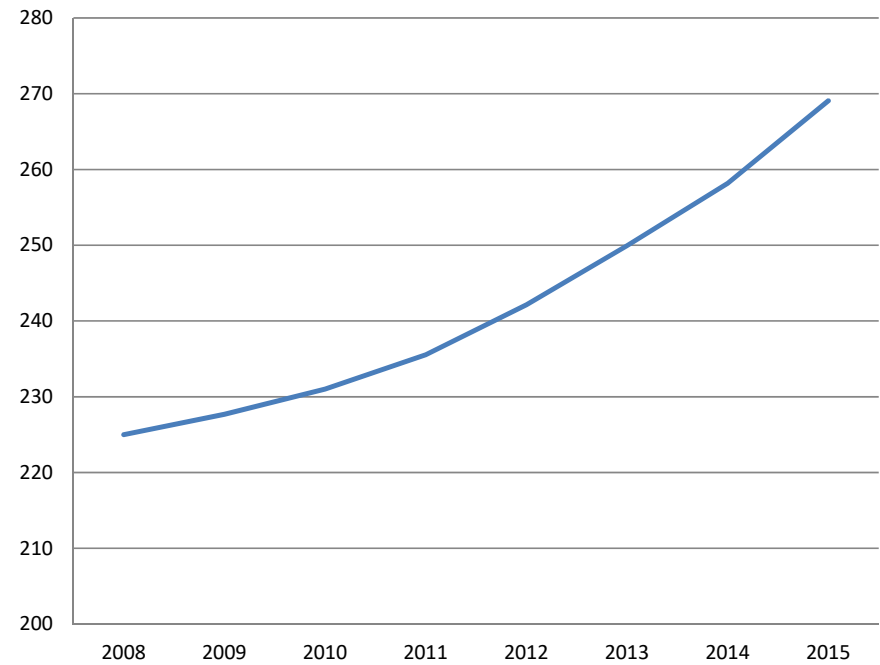
Data presented is fictitious and provided for illustration purposes only.

Graphic Types: Line Charts

Growth Rate of General Liability



Growth Rate of Cyber Insurance

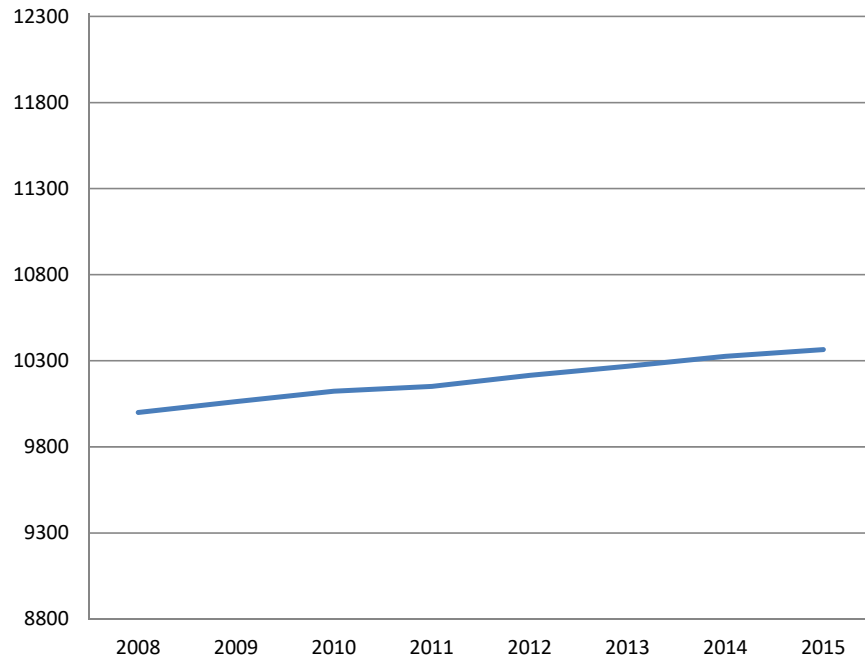


Vertical axes are logarithmic values

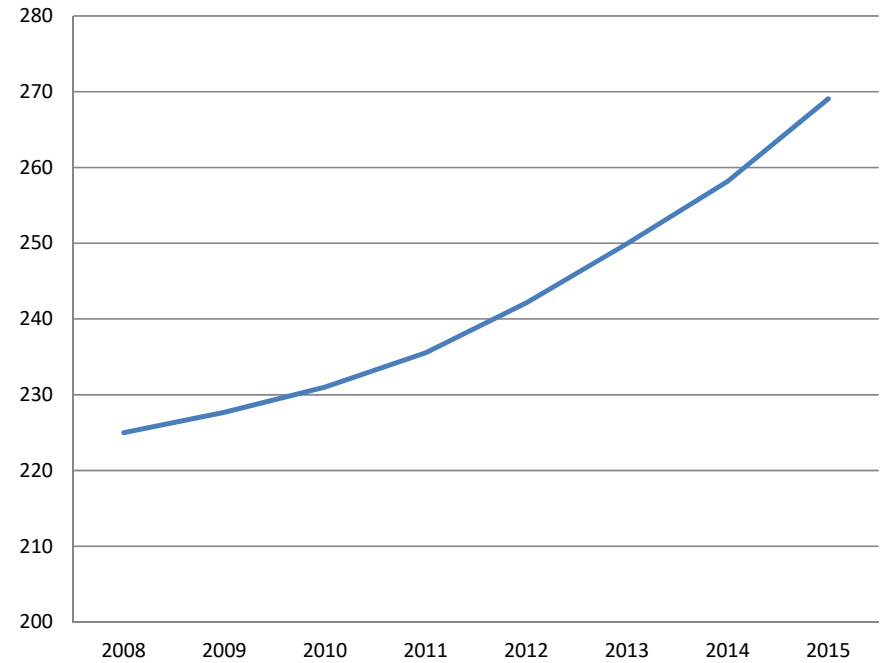
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Graphic Types: Line Charts

Growth Rate of General Liability



Growth Rate of Cyber Insurance



Vertical axes are logarithmic values

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Graphic Types: Showing Multiple Years

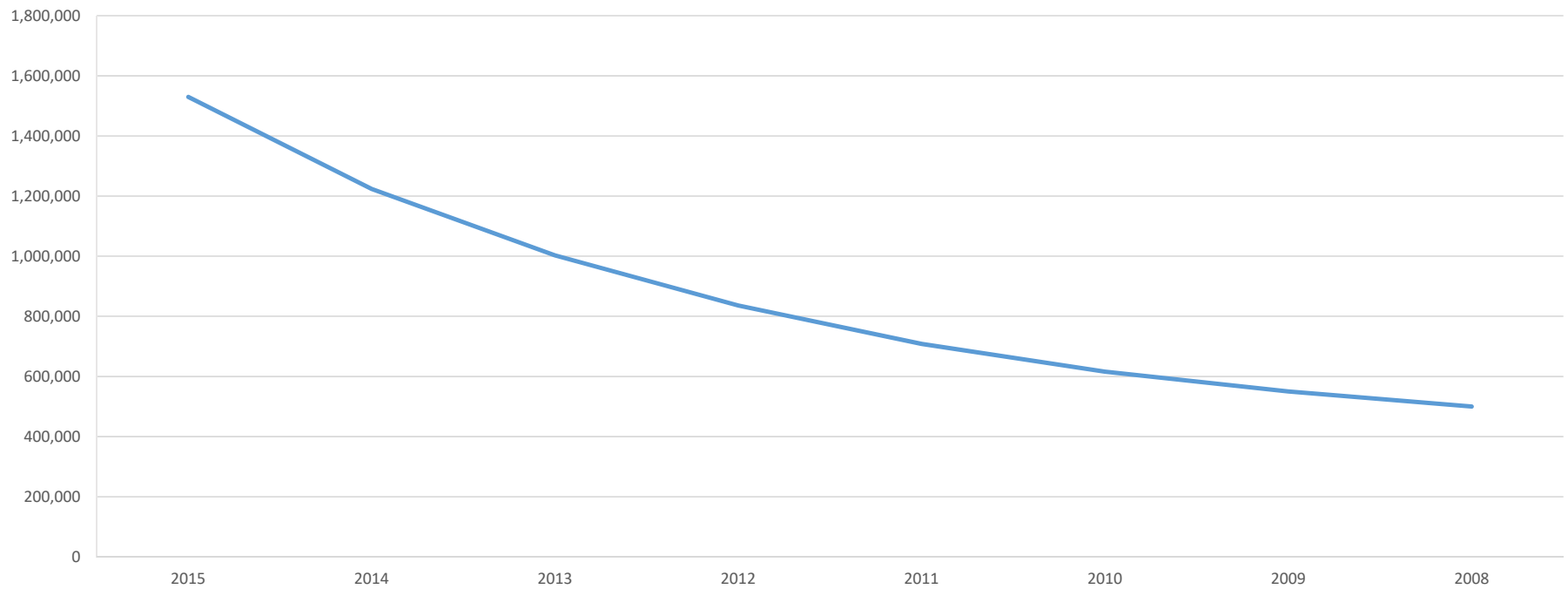
Value of Your Asset Portfolio (2008-2015)



Data presented is fictitious and provided for illustration purposes only.

Graphic Types: Showing Multiple Years

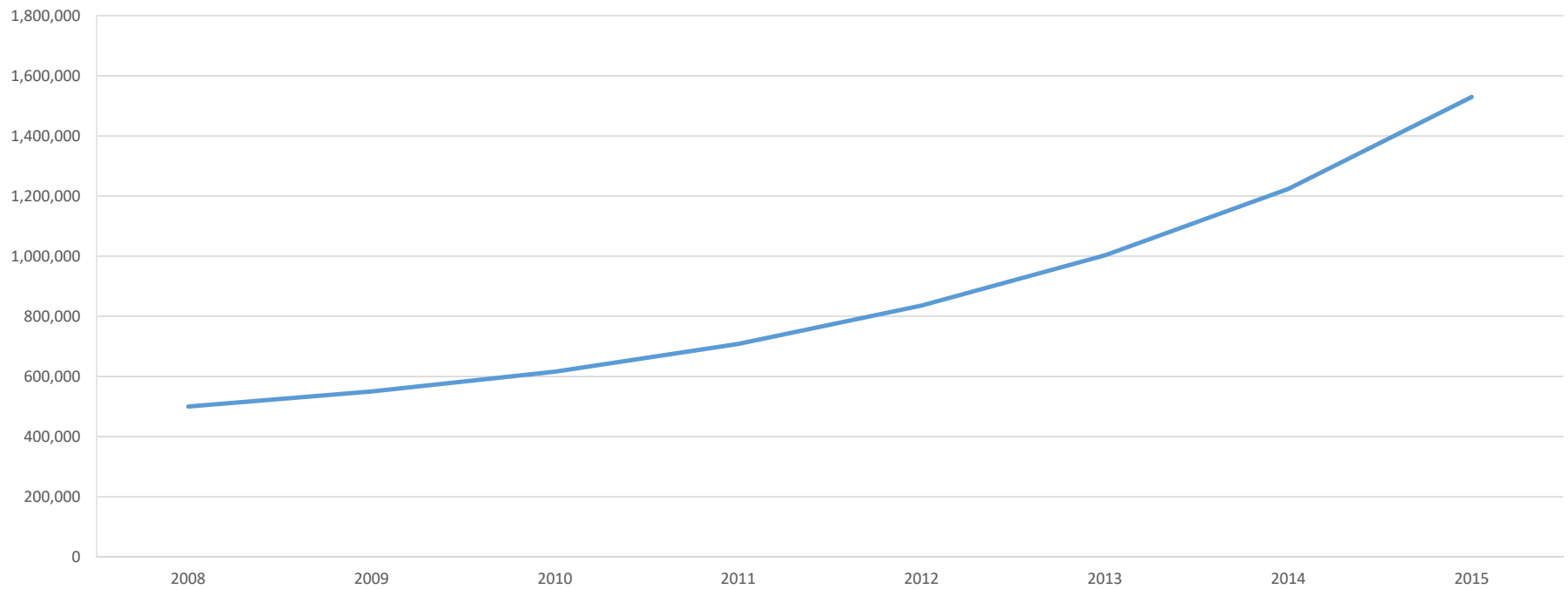
Value of Your Asset Portfolio (2008-2015)



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Graphic Types: Showing Multiple Years

Value of Your Asset Portfolio (2008-2015)



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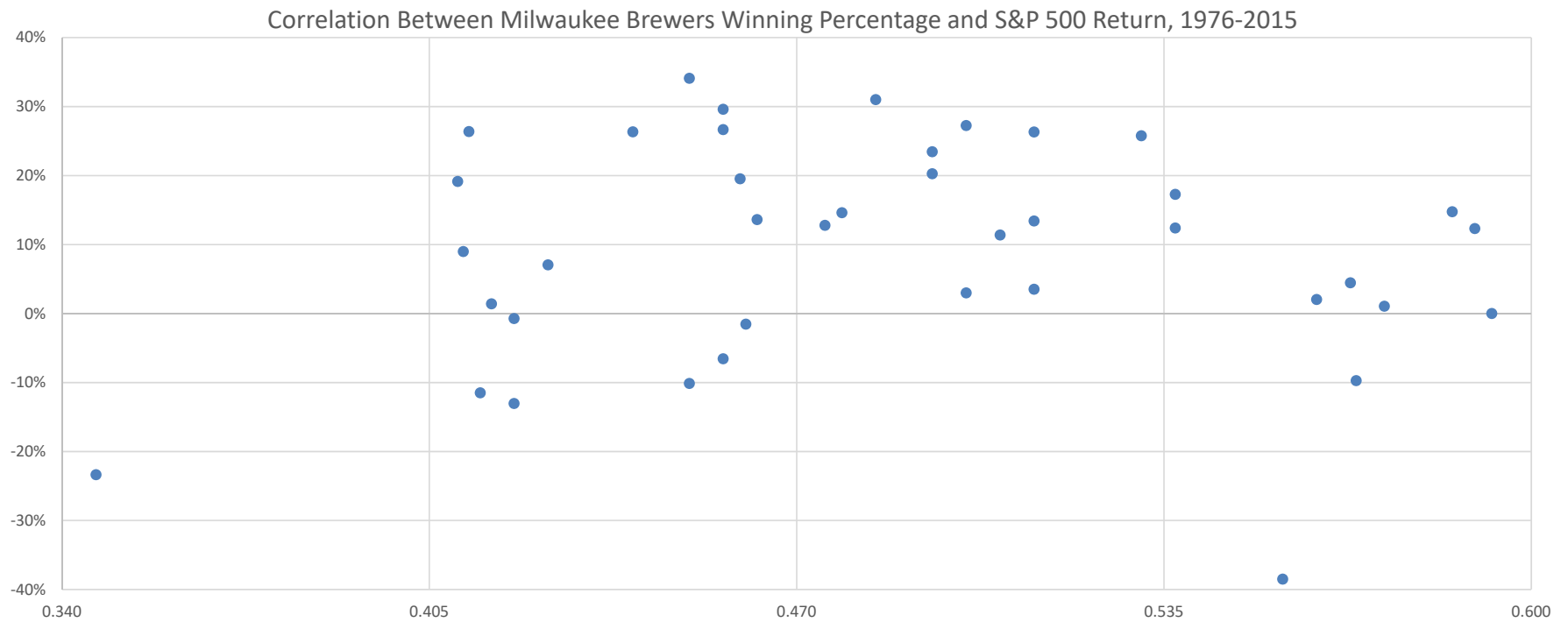
Graphic Types: Showing Multiple Years

LIABILITIES, SURPLUS AND OTHER FUNDS

	1 Current Year	2 Prior Year
1. Losses (Part 2A, Line 35, Column 8).....	.....X,XXX,XXX	.....X,XXX,XXX
2. Reinsurance payable on paid losses and loss adjustment expenses (Schedule F, Part 1, Column 6).....	.....X,XXX,XXX	.....X,XXX,XXX
3. Loss adjustment expenses (Part 2A, Line 35, Column 9).....	.....X,XXX,XXX	.....X,XXX,XXX
4. Commissions payable, contingent commissions and other similar charges.....	.....X,XXX,XXX	.....X,XXX,XXX
5. Other expenses (excluding taxes, licenses and fees).....	.....X,XXX,XXX	.....X,XXX,XXX
6. Taxes, licenses and fees (excluding federal and foreign income taxes).....	.....X,XXX,XXX	.....X,XXX,XXX

Data presented is fictitious and provided for illustration purposes only.

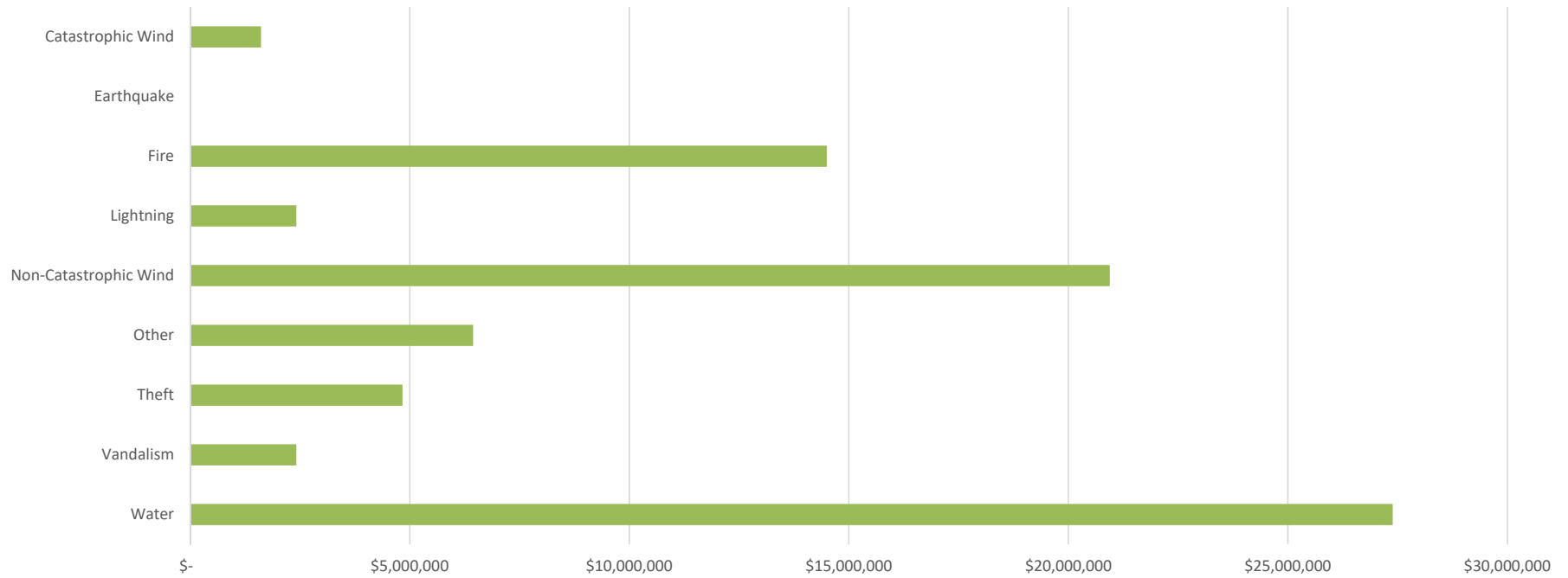
Graphic Types: Scatter Plots



Sources: en.wikipedia.org/wiki/List_of_Milwaukee_Brewers_seasons and en.wikipedia.org/wiki/S%26P_500_Index

Graphic Types: Tables

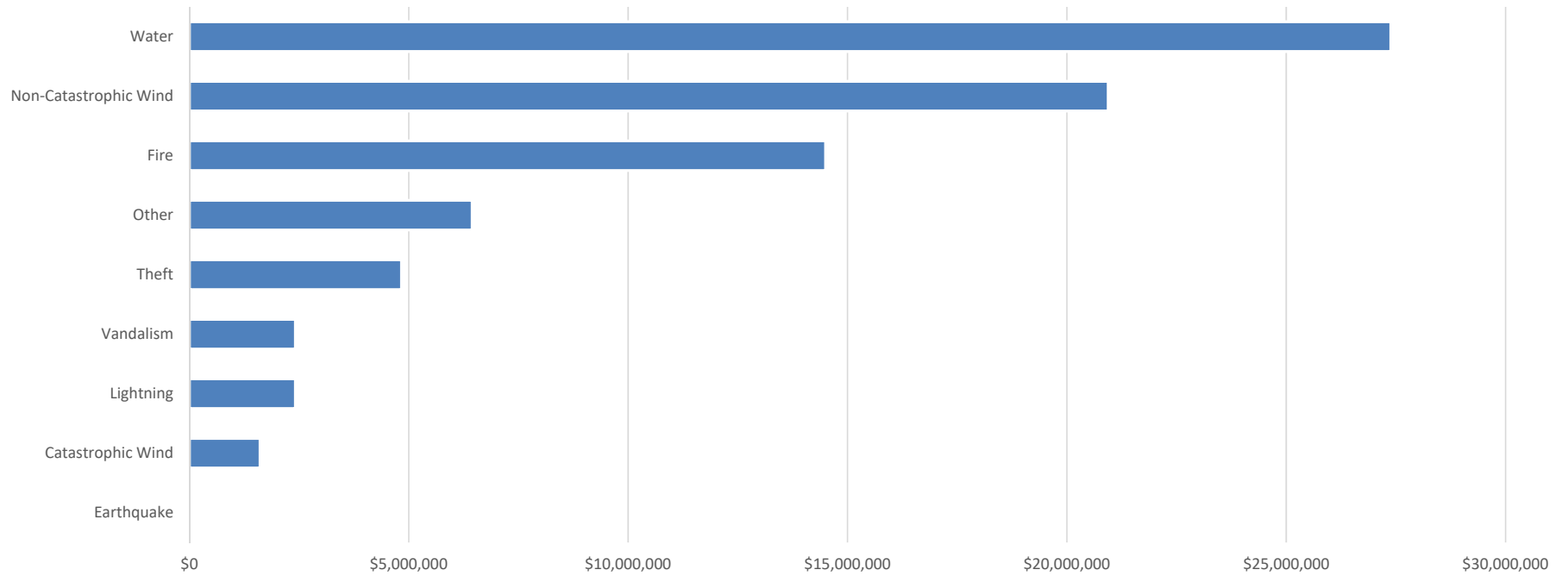
2015 Homeowners Incurred Losses by Peril



Data presented is fictitious and provided for illustration purposes only.

Graphic Types: Tables

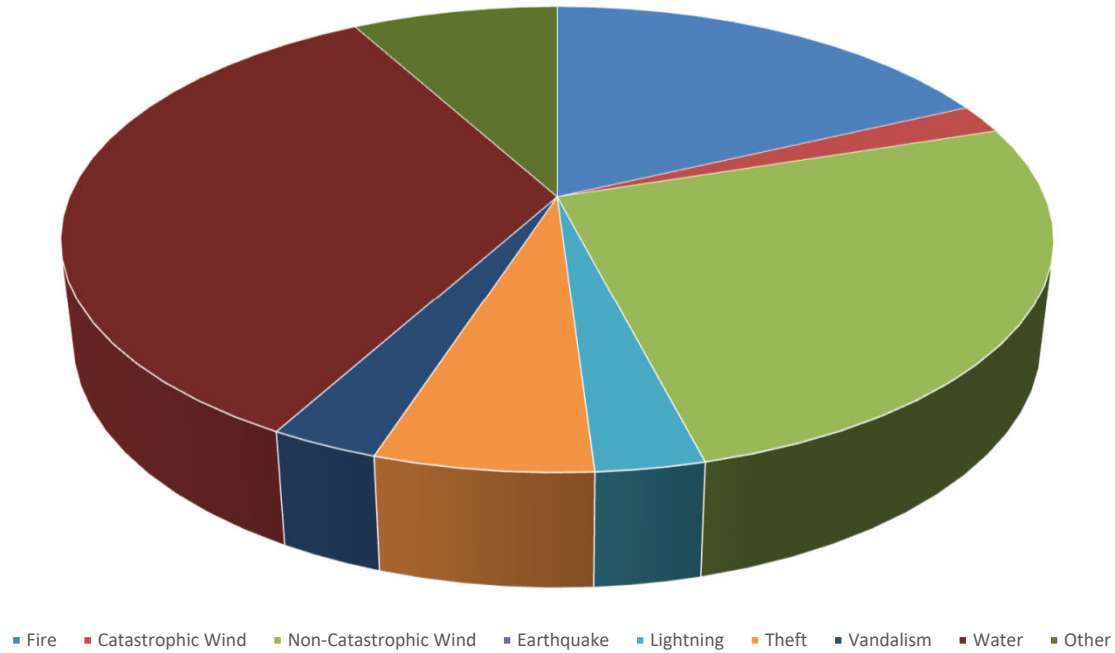
2015 Homeowners Incurred Losses by Peril (millions)



Data presented is fictitious and provided for illustration purposes only.

Graphic Types: Pie Charts

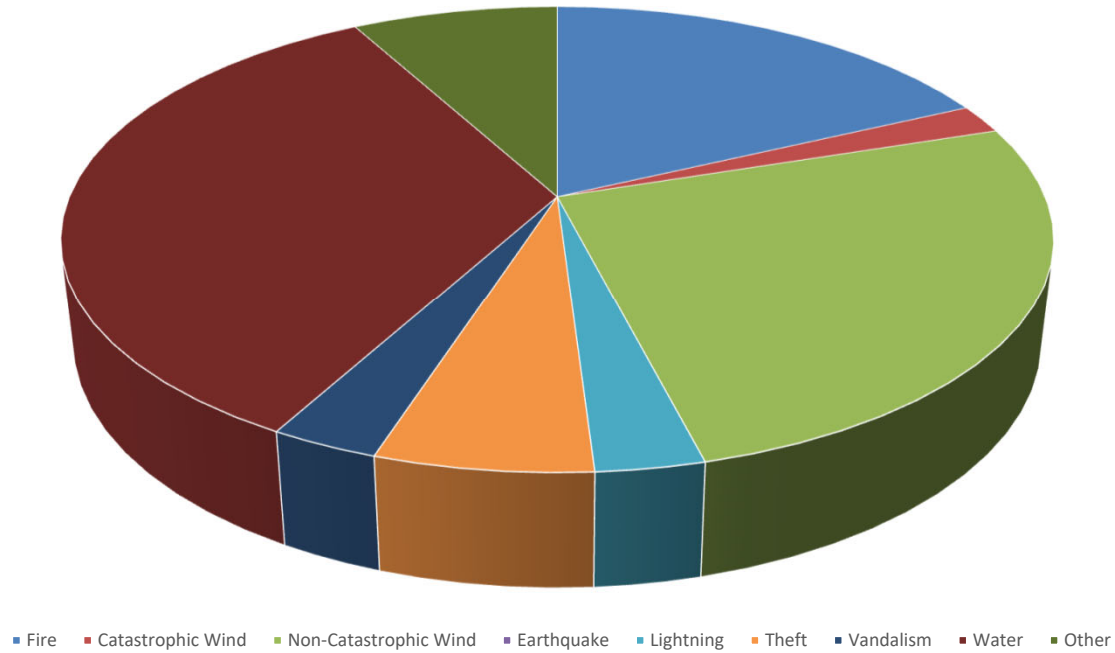
2015 Homeowners Incurred Losses by Peril



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Graphic Types: Pie Charts

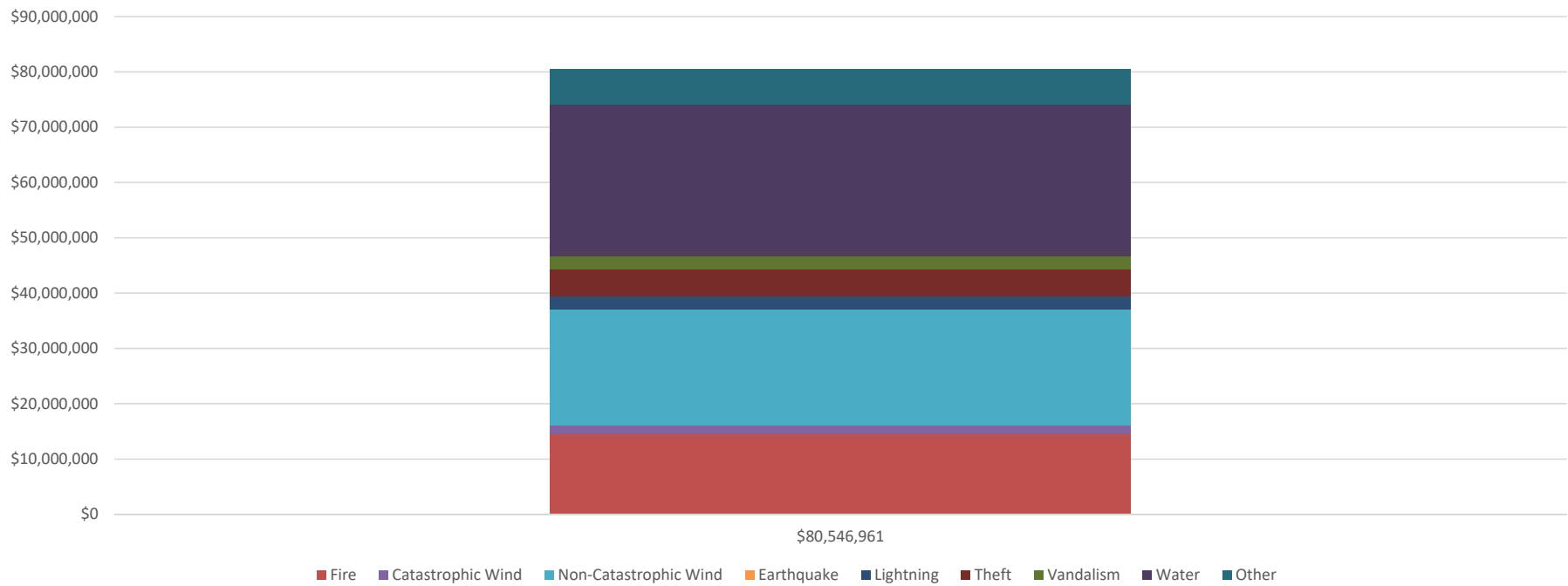
2015 Homeowners Incurred Losses by Peril



Data presented is fictitious and provided for illustration purposes only.

Graphic Types: Stacked Bar Graphs

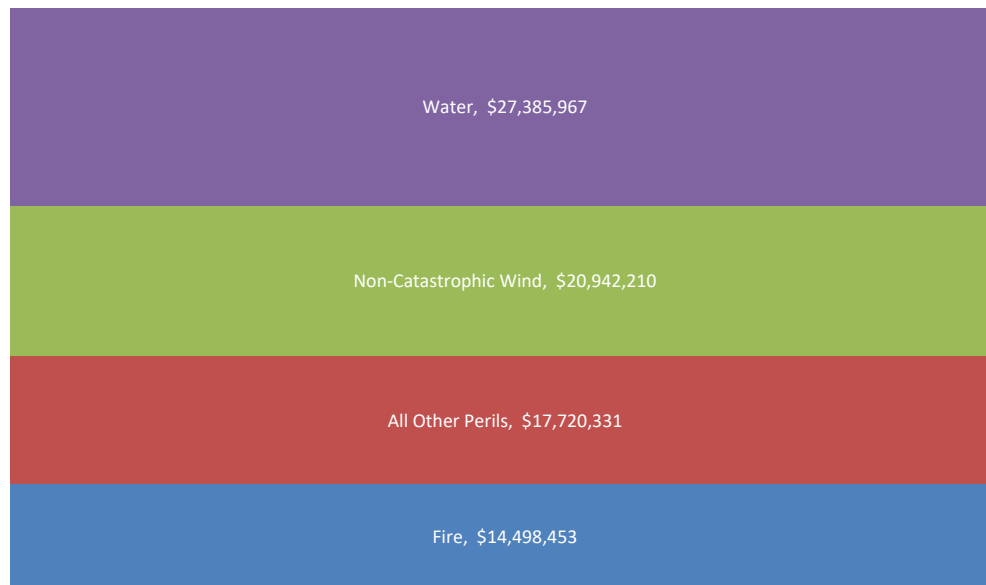
2015 Homeowners Incurred Losses by Peril (millions)



Data presented is fictitious and provided for illustration purposes only.

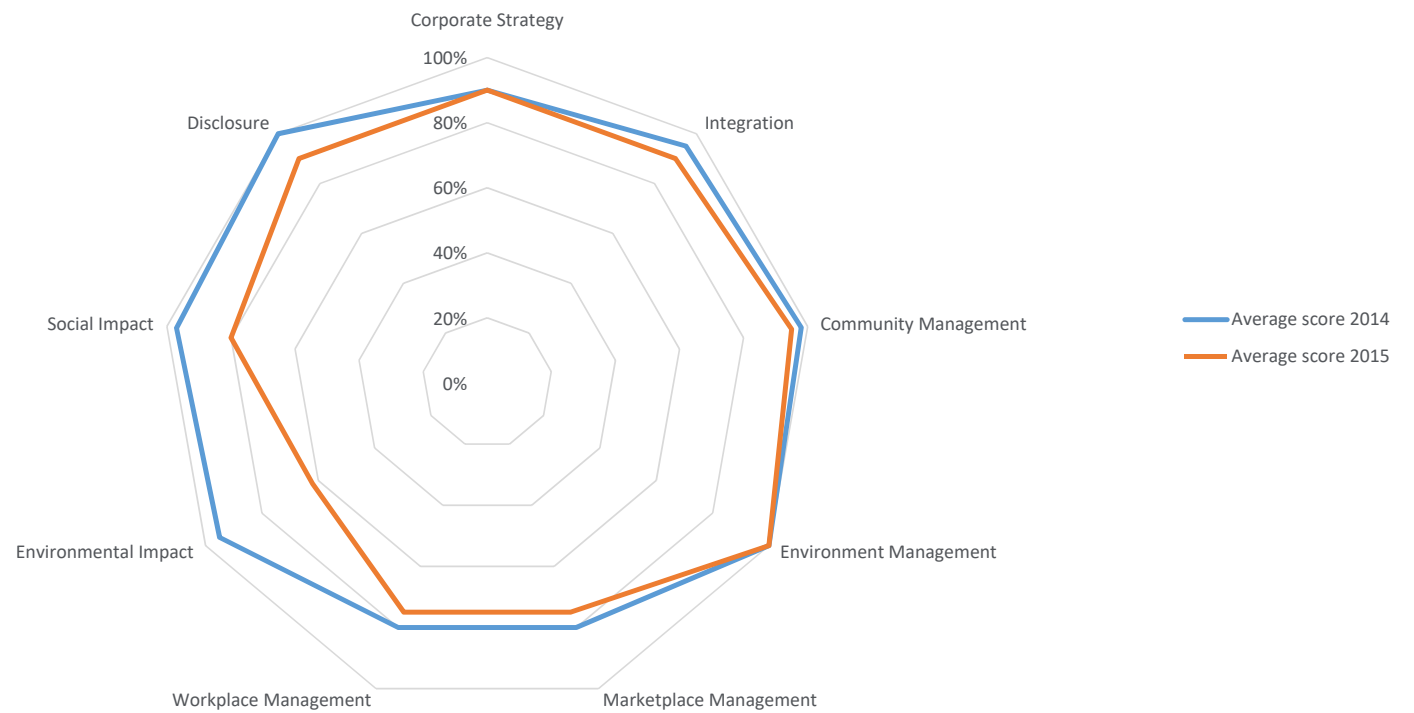
Graphic Types: Stacked Bar Graphs

2015 Homeowners Incurred Losses by Peril



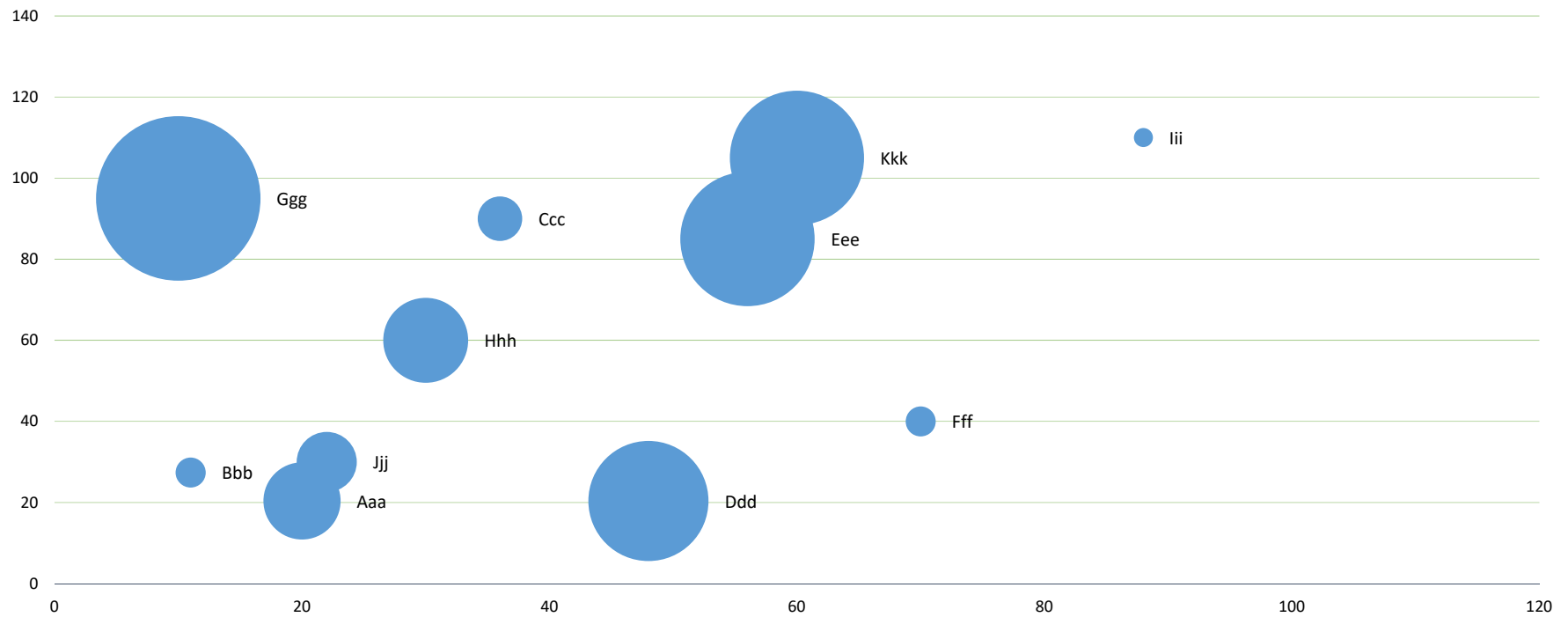
Data presented is fictitious and provided for illustration purposes only.

Graphic Types: Radar Charts



Data presented is fictitious and provided for illustration purposes only.

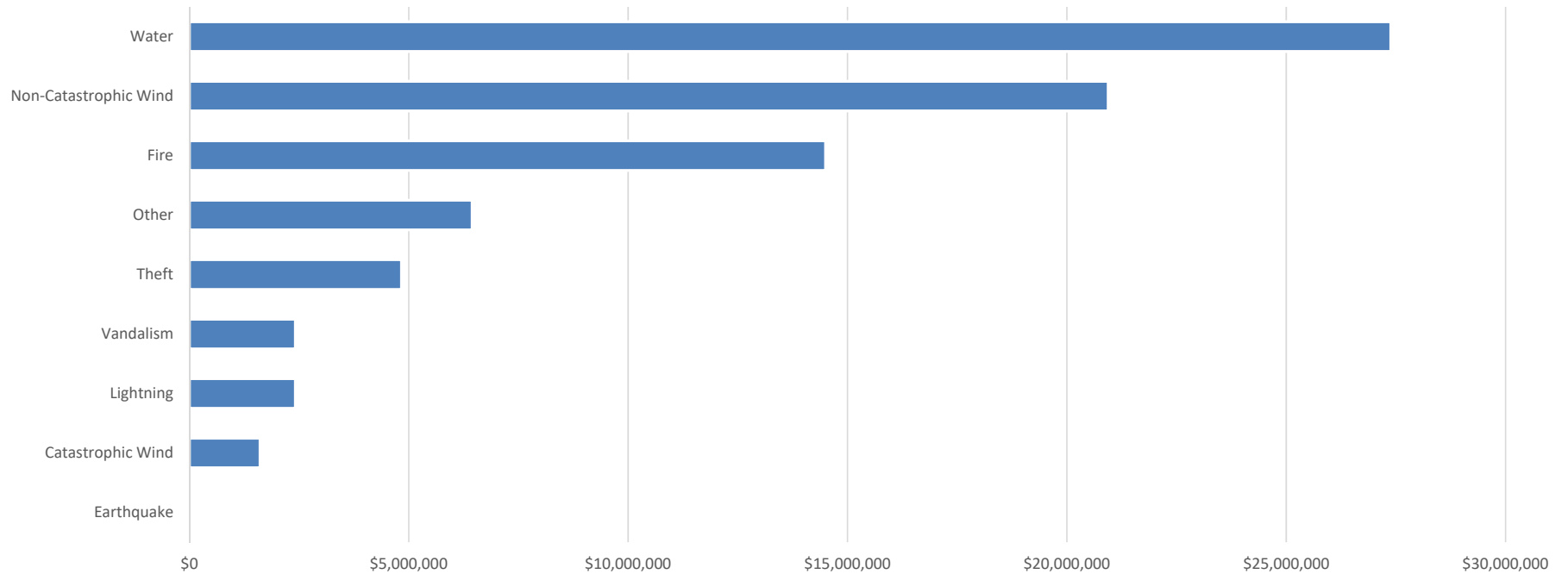
Graphic Types: Bubble Charts



Data presented is fictitious and provided for illustration purposes only.

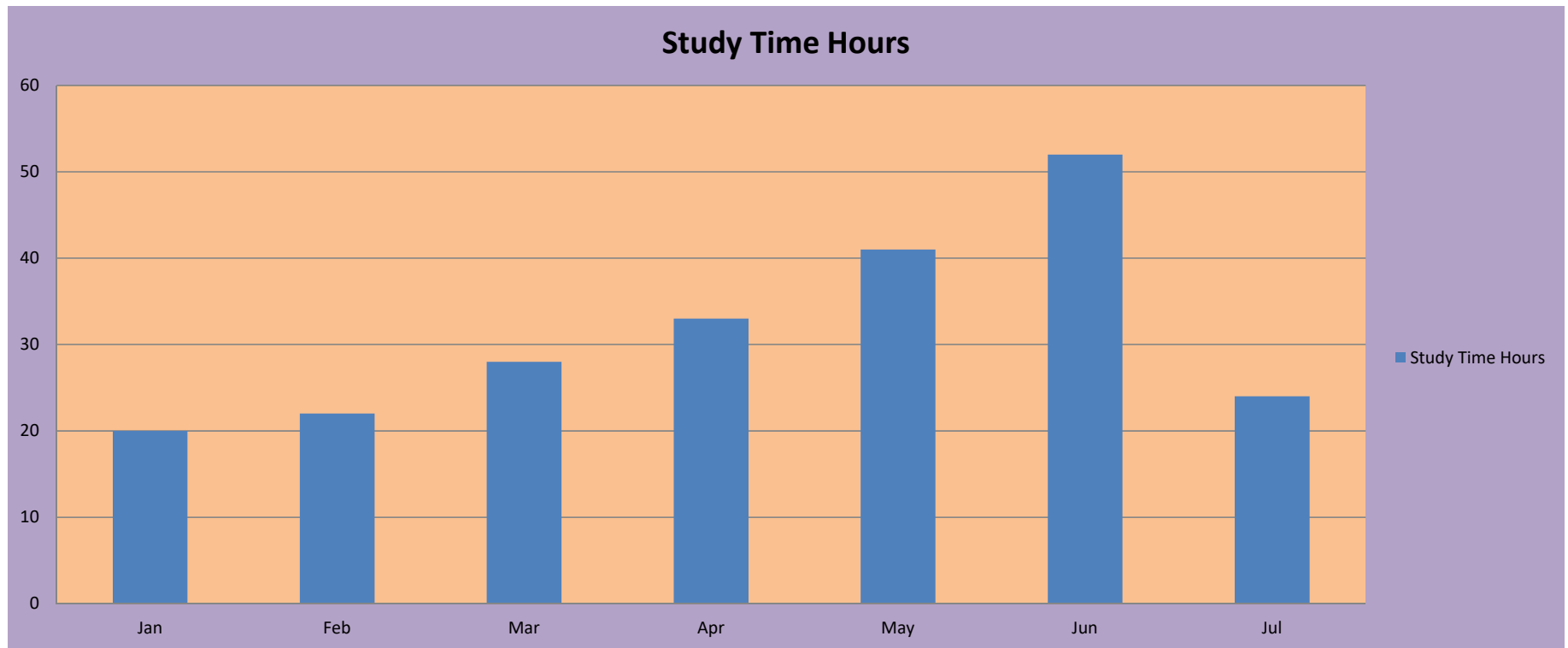
Graphic Types: Tables

2015 Homeowners Incurred Losses by Peril (millions)



Data presented is fictitious and provided for illustration purposes only.

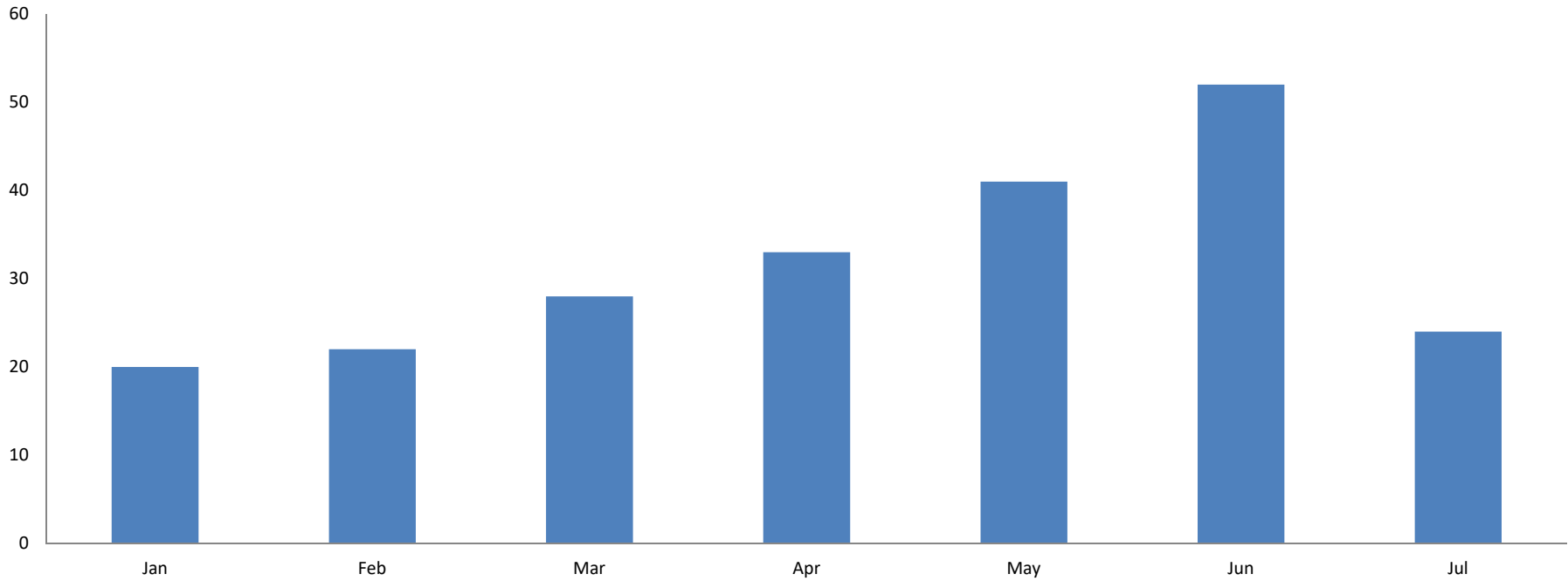
Design Characteristics: General



Data presented is fictitious and provided for illustration purposes only.

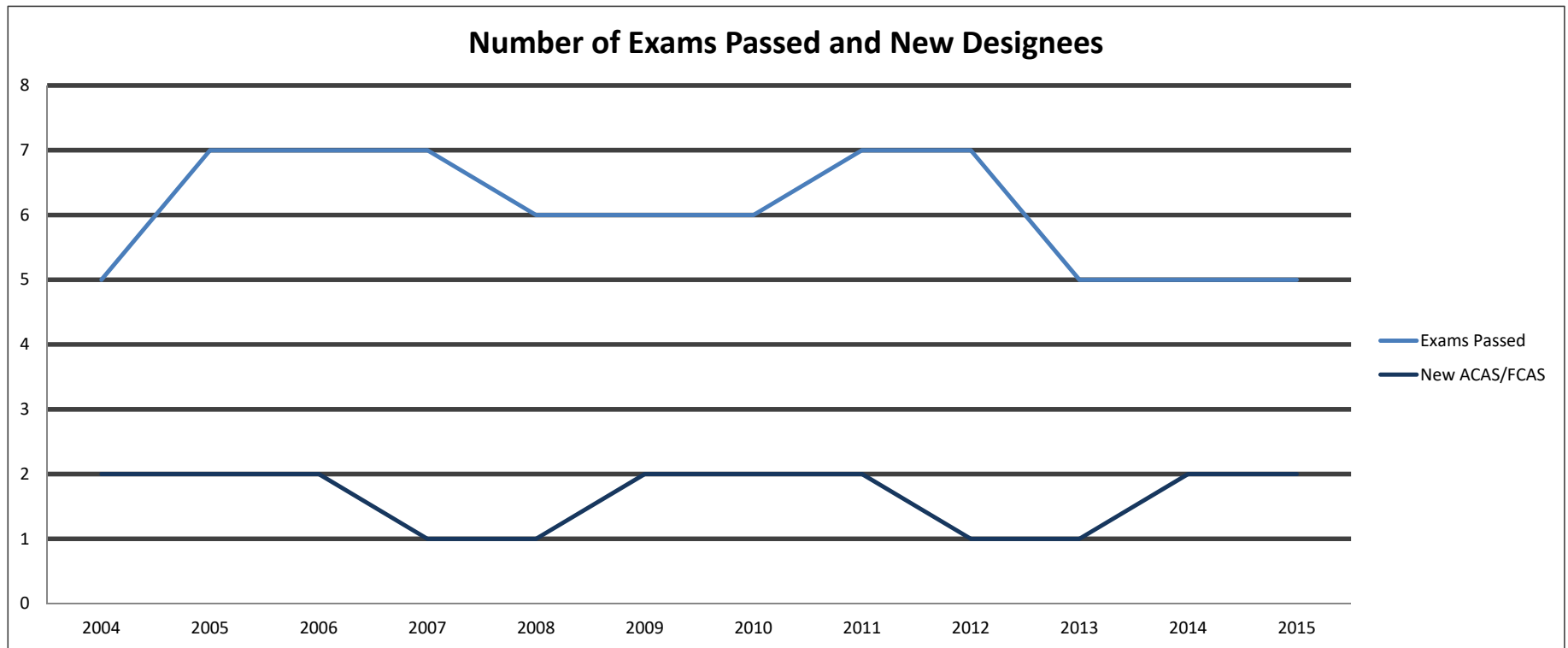
Design Characteristics: General

Study Time Hours



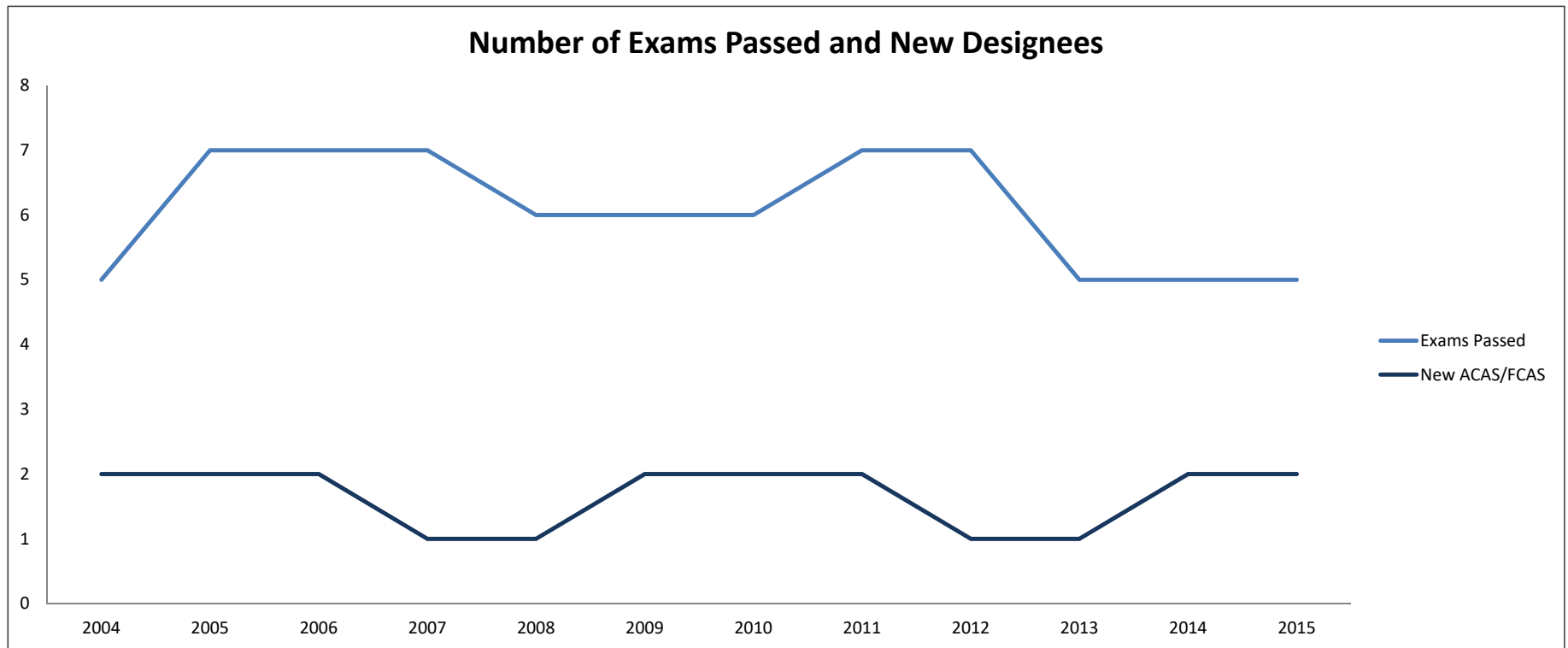
Data presented is fictitious and provided for illustration purposes only.

Design Characteristics: Gridlines



Data presented is fictitious and provided for illustration purposes only.

Design Characteristics: Gridlines



Data presented is fictitious and provided for illustration purposes only.

Design Characteristics: Font

For on screen, use

Arial

Calibri

For handouts, use

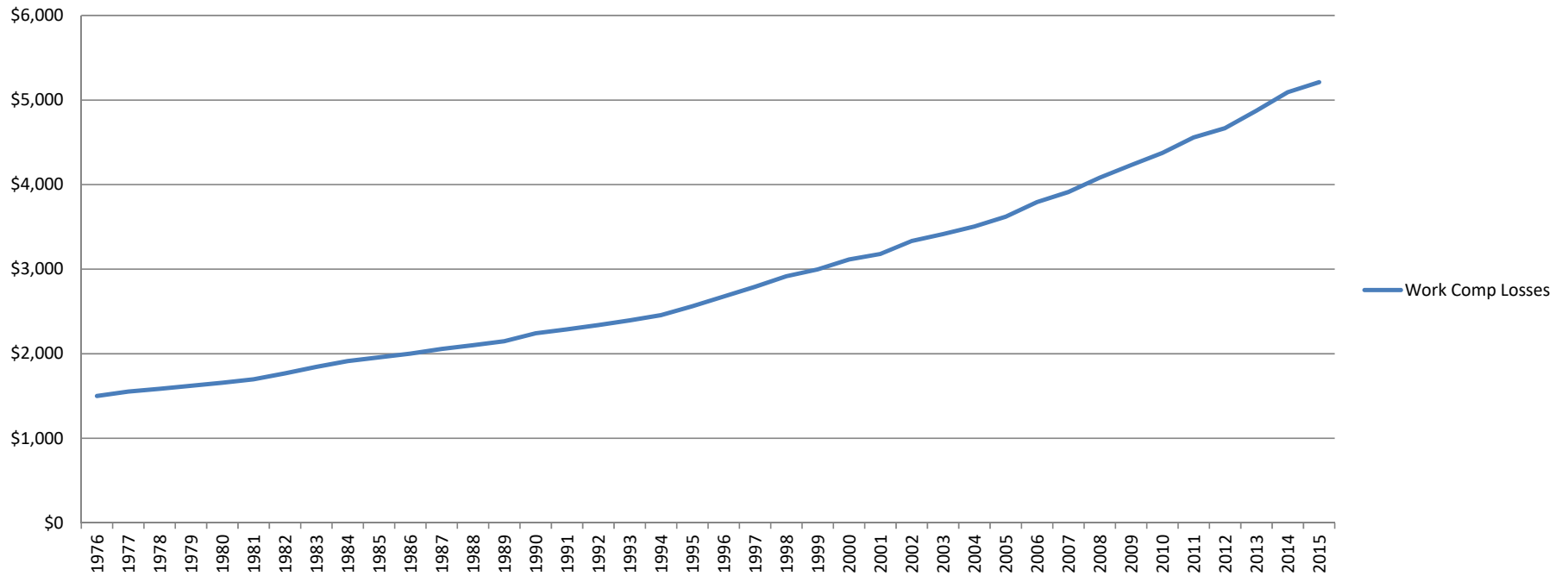
Garamond

Times New Roman

AVOID *decorative fonts in both places!*

Design Characteristics: Labels, Legends, Titles

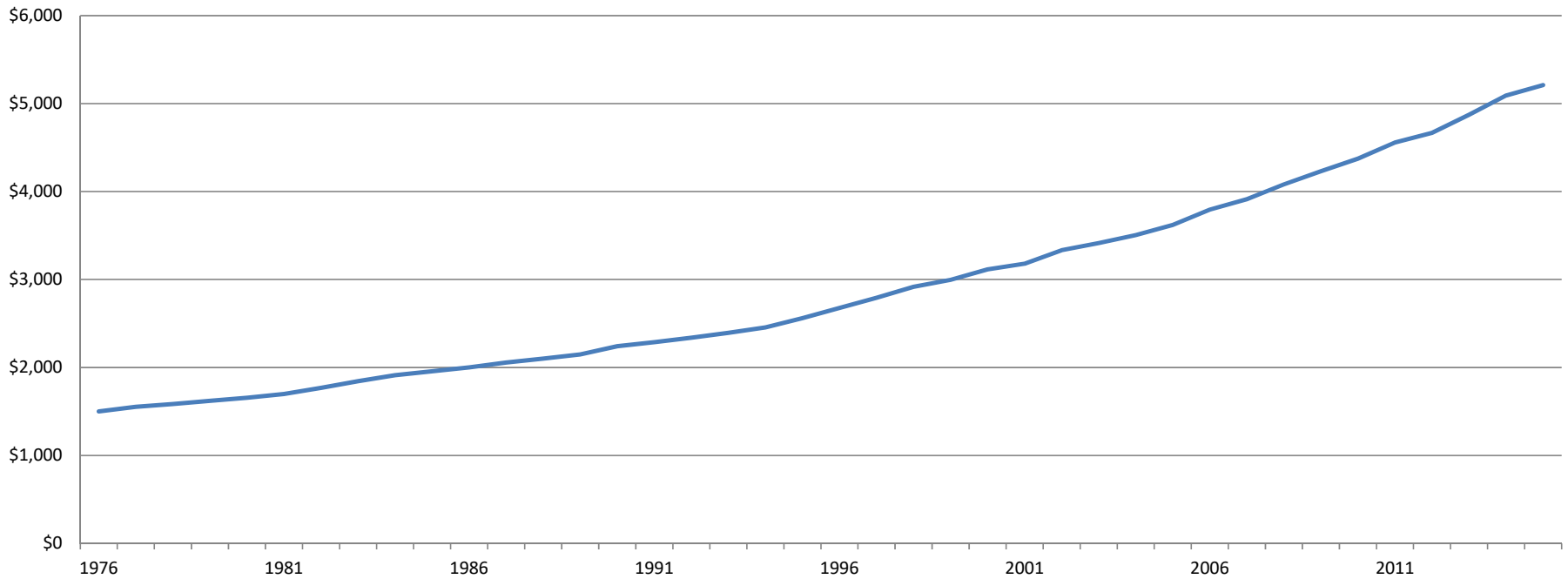
Work Comp Losses (millions of dollars)



Data presented is fictitious and provided for illustration purposes only.

Design Characteristics: Labels, Legends, Titles

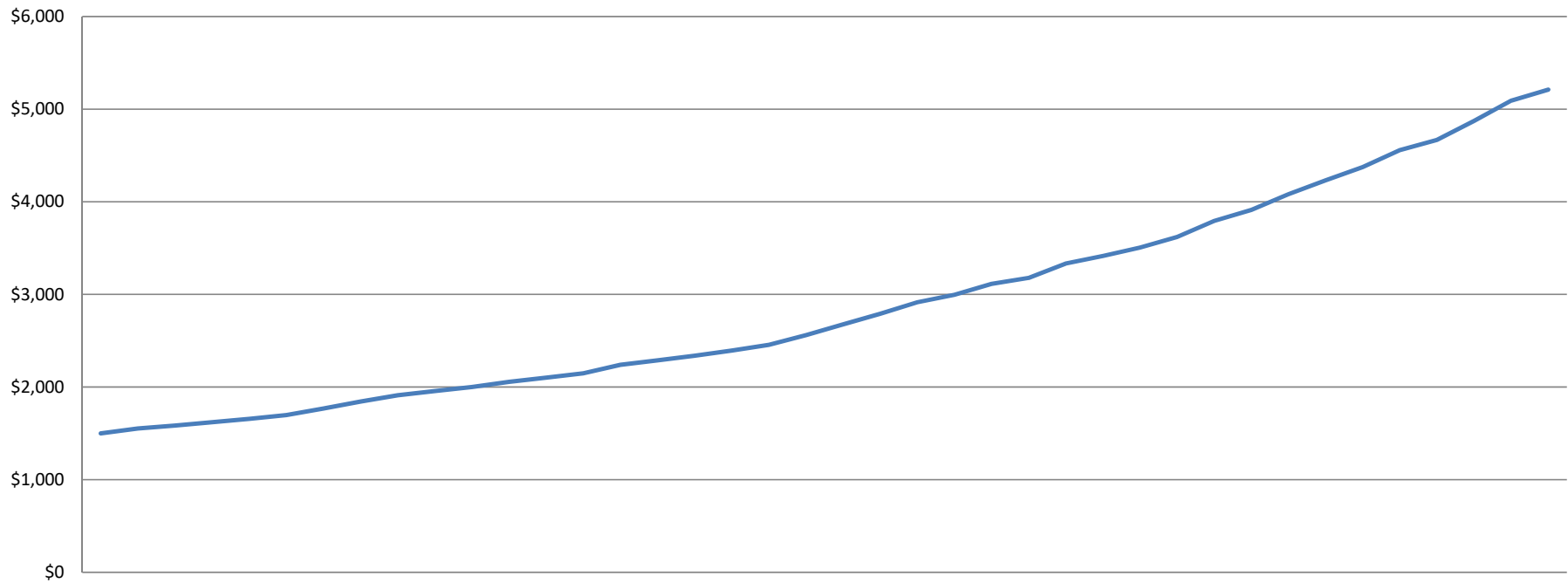
Work Comp Losses (millions)



Data presented is fictitious and provided for illustration purposes only.

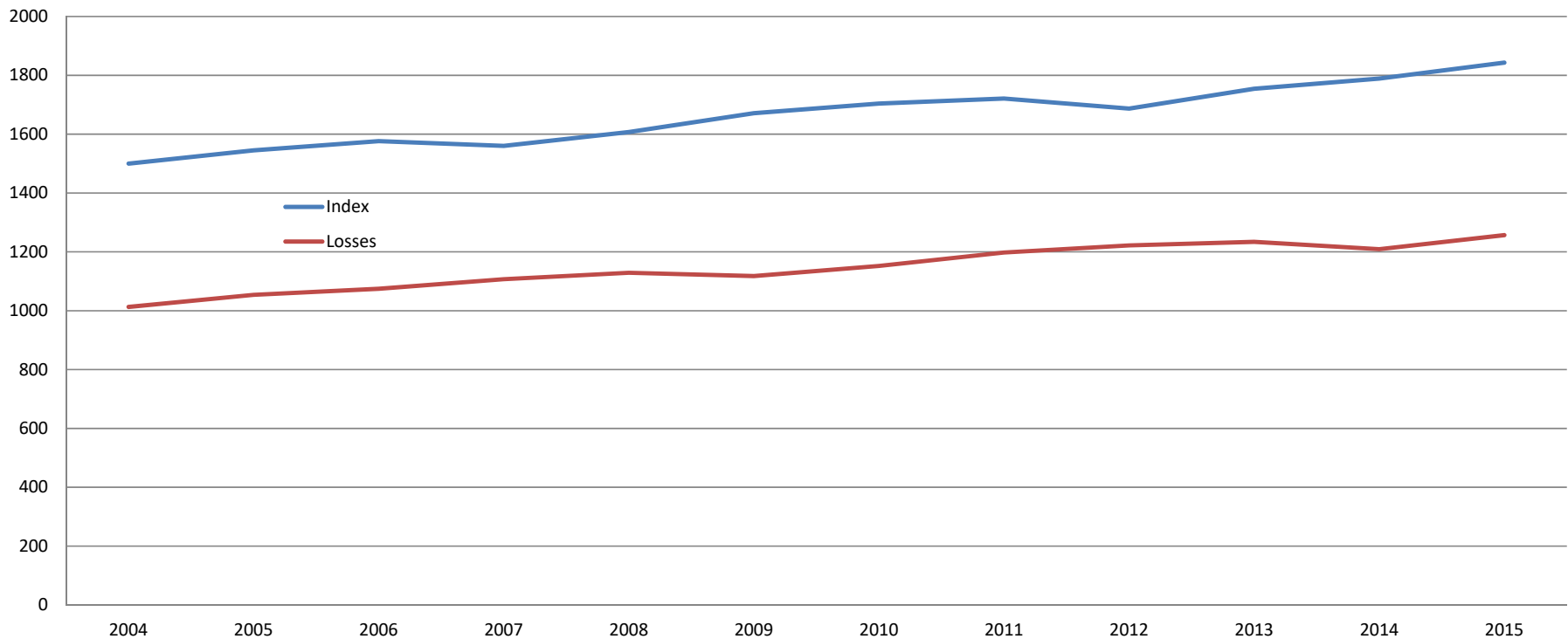
Design Characteristics: Labels, Legends, Titles

Work Comp Losses (millions), 1976-2015



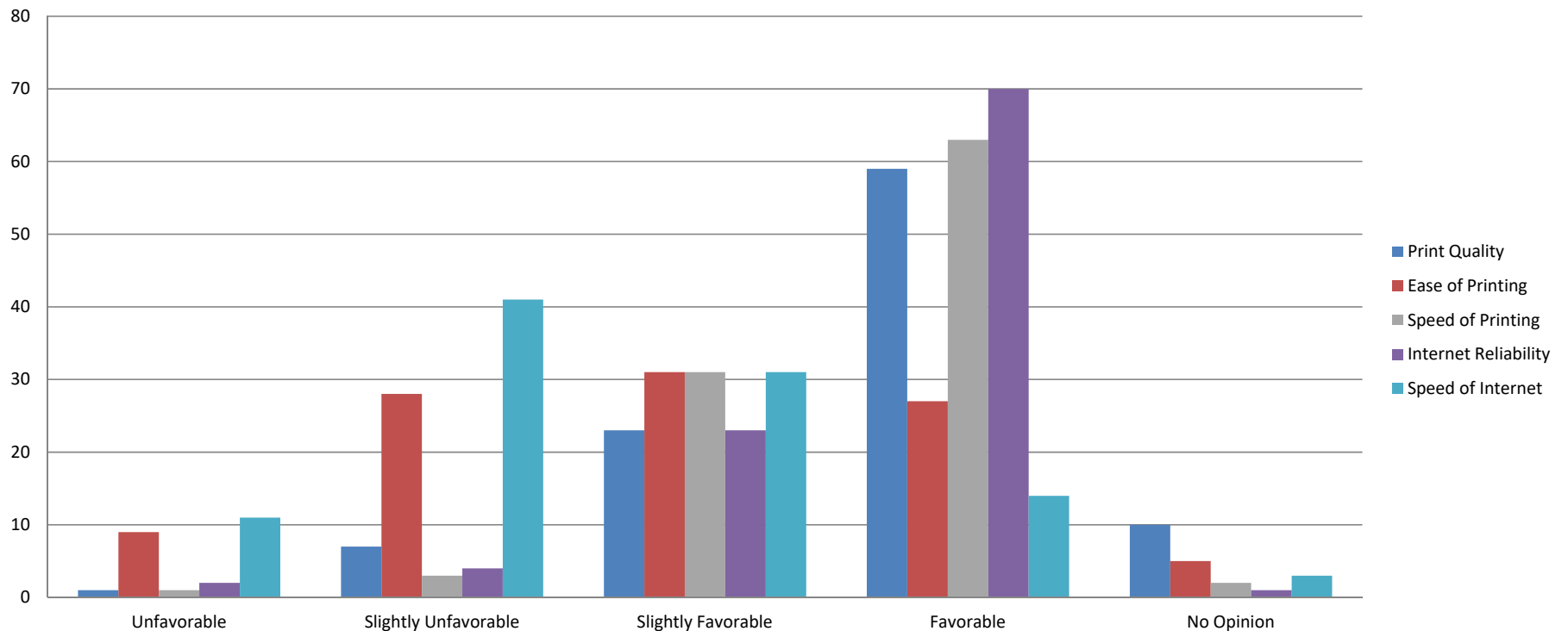
Data presented is fictitious and provided for illustration purposes only.

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



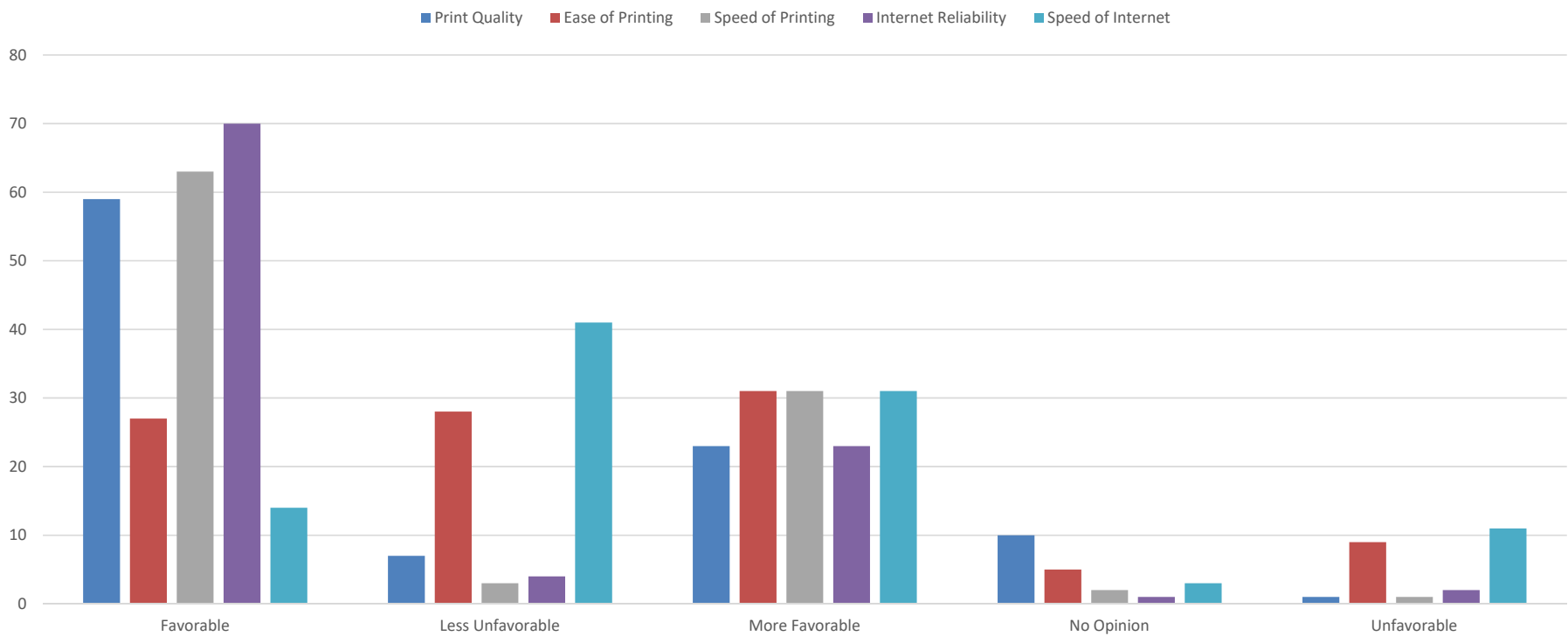
Data presented is fictitious and provided for illustration purposes only.

Design Characteristics: Labels, Legends, Titles



Data presented is fictitious and provided for illustration purposes only.

Design Characteristics: Labels, Legends, Titles



Data presented is fictitious and provided for illustration purposes only.

Design Characteristics: Alignment

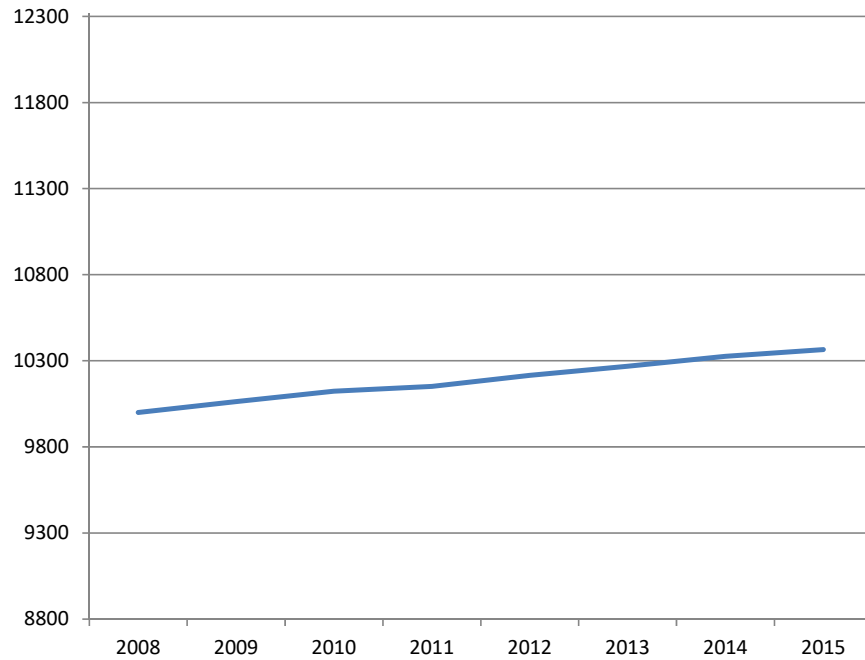
Premium	2010	2011	2012	2013	2014	2015
Gen. Liab.	3,425,636	3,528,405	3,634,257	3,743,285	3,855,584	3,971,252
Med Mal	652,384.52	767,432.68	882,781.31	998,437.42	1,014,406.18	1,130,694.94
Property	9,213,289	9,373,953	9,542,651	9,719,784	9,905,773	10,101,062

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

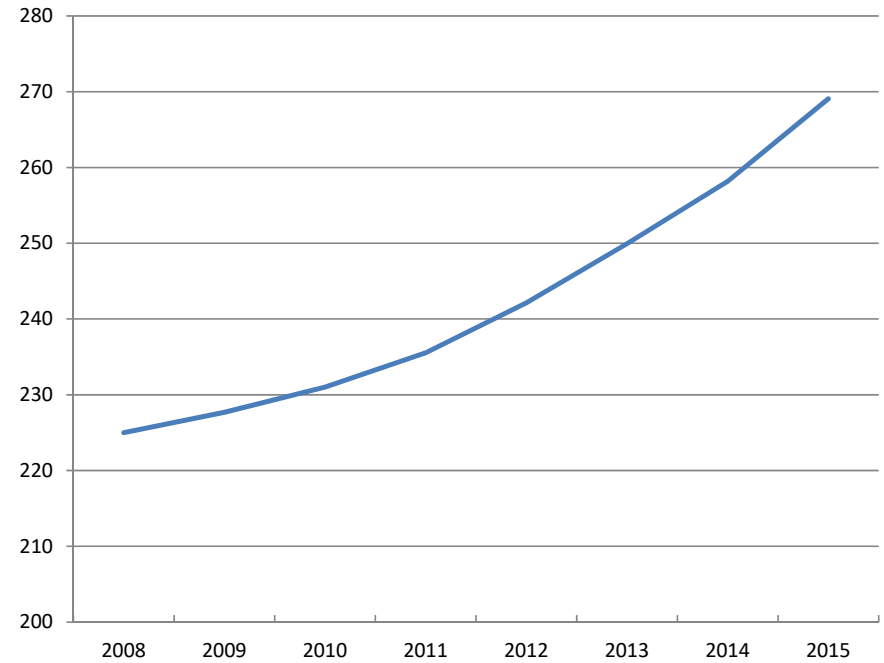
Data presented is fictitious and provided for illustration purposes only.

Design Characteristics: Axes

Growth Rate of General Liability



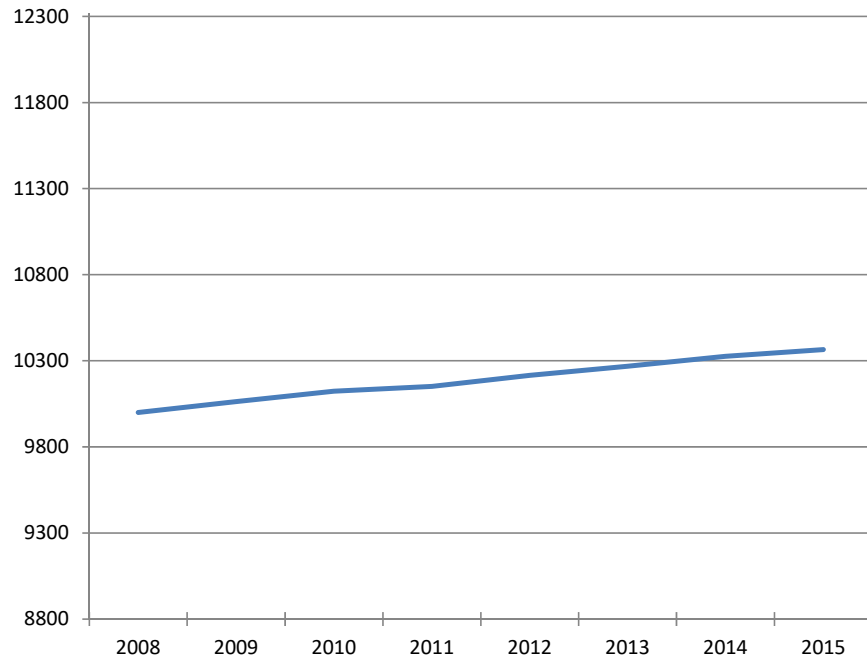
Growth Rate of Cyber Insurance



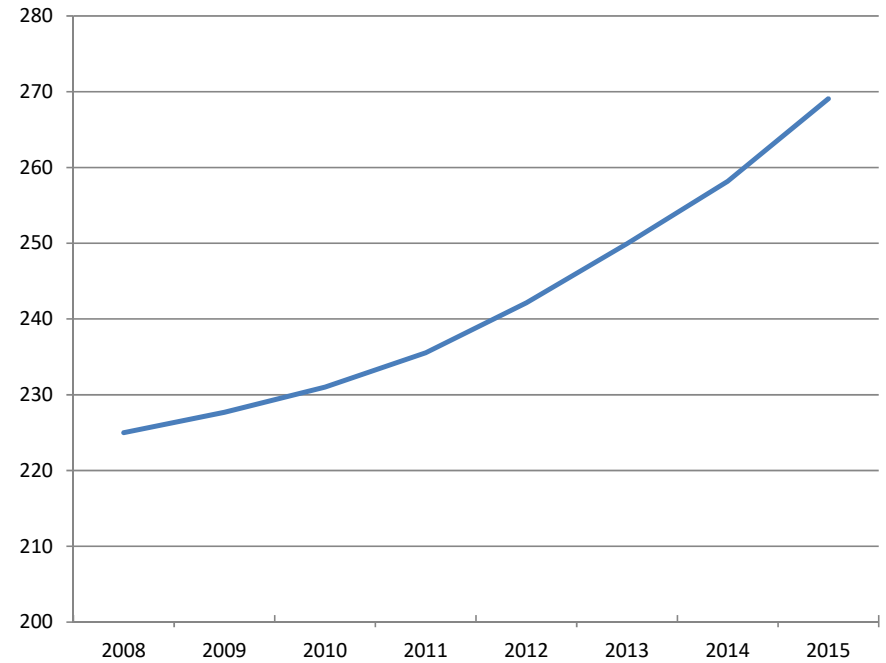
Data presented is fictitious and provided for illustration purposes only.

Design Characteristics: Axes

Growth Rate of General Liability



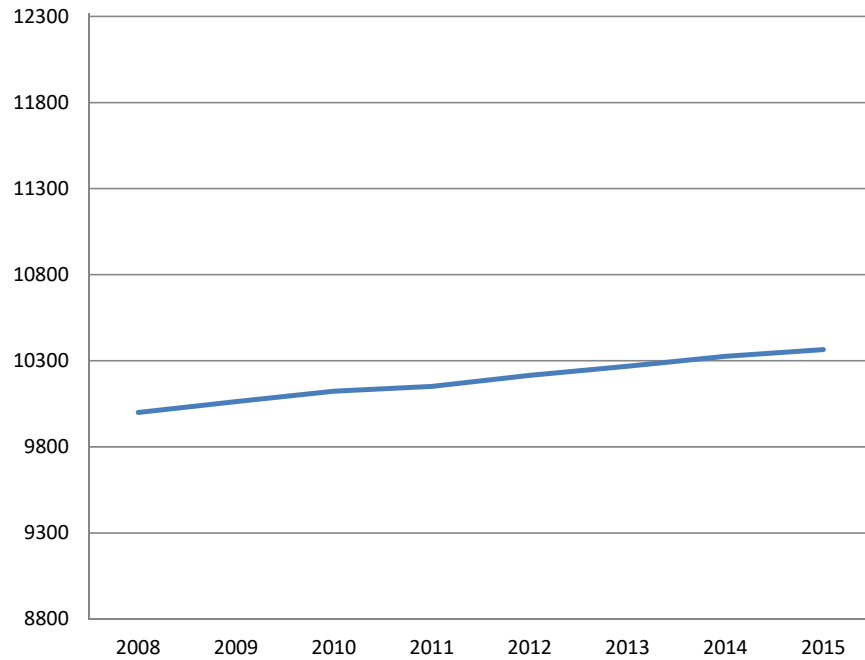
Growth Rate of Cyber Insurance



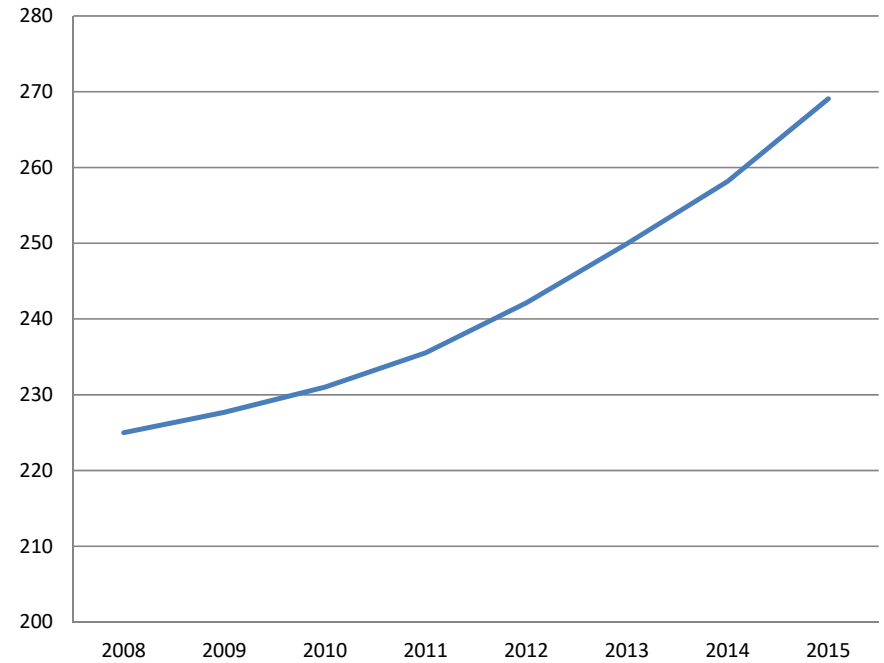
Data presented is fictitious and provided for illustration purposes only.

Design Characteristics: Axes

Growth Rate of General Liability



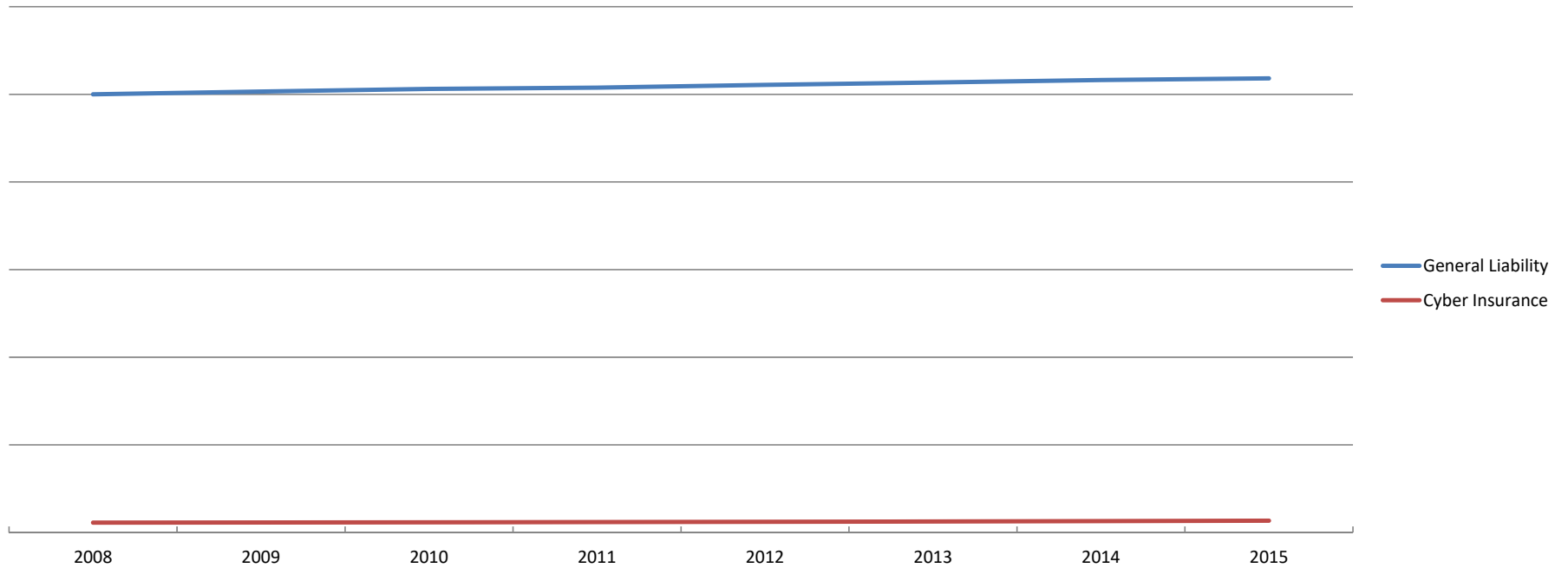
Growth Rate of Cyber Insurance



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Design Characteristics: Axes

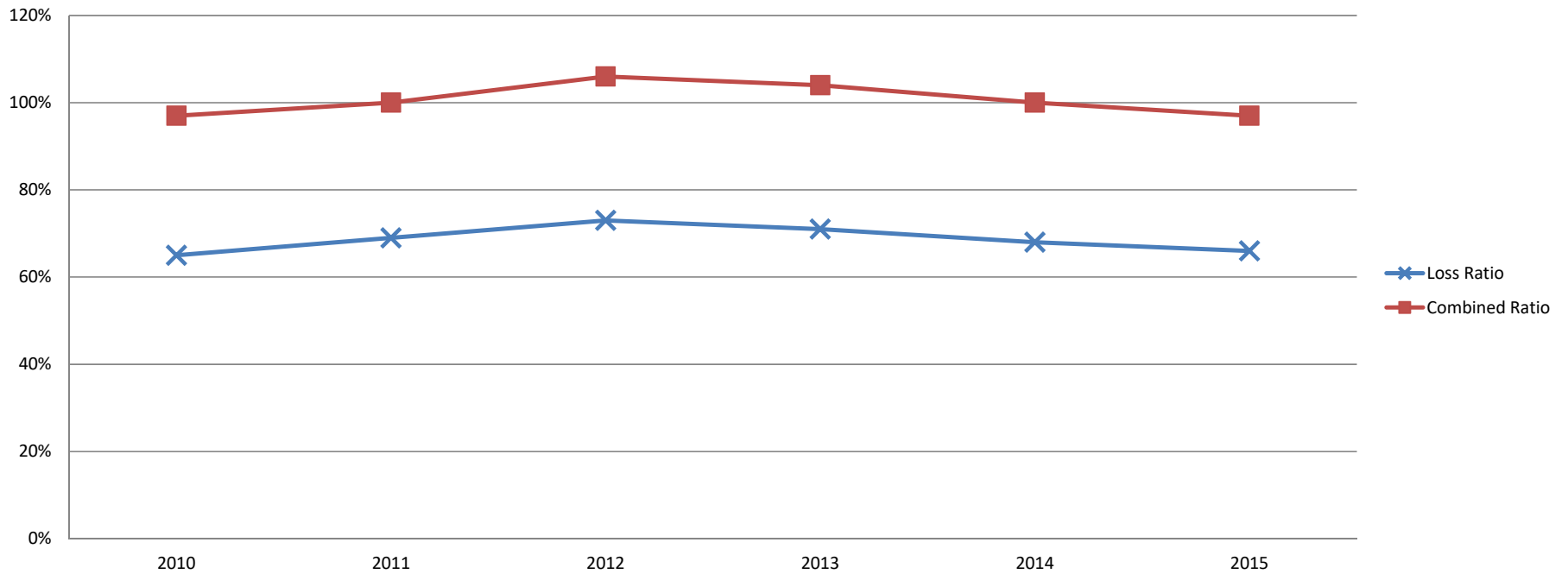
Growth Rates of GL and Cyber Insurance



Data presented is fictitious and provided for illustration purposes only.

Design Characteristics: Lines

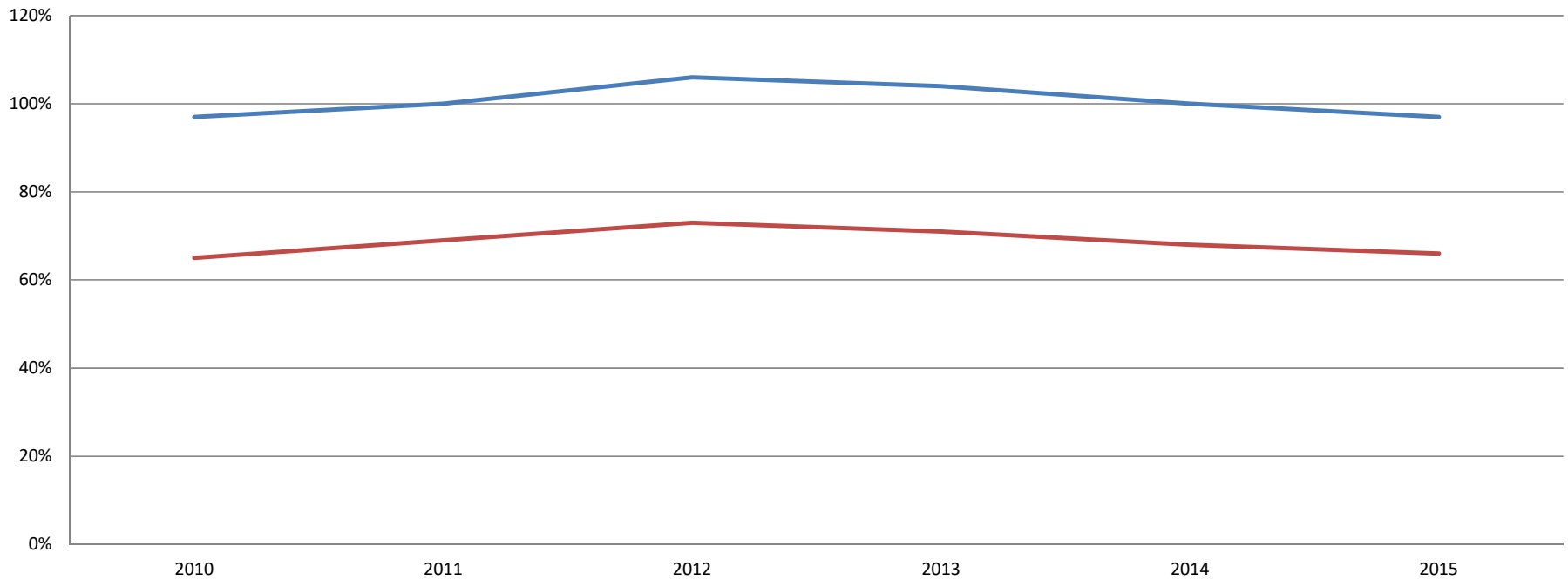
LR and CR Ratio Trends, 2010-2015



Data presented is fictitious and provided for illustration purposes only.

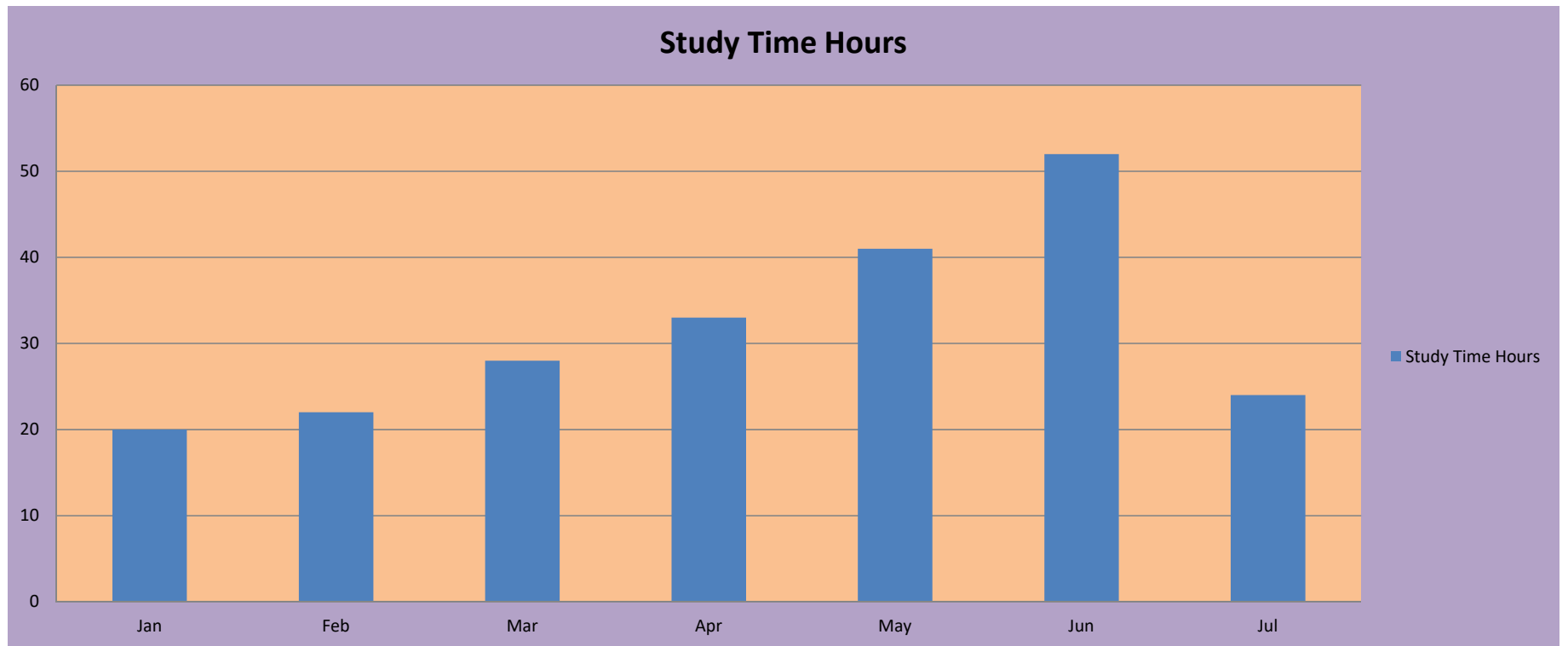
Design Characteristics: Lines

Combined Ratio and Loss Ratio Trends



Data presented is fictitious and provided for illustration purposes only.

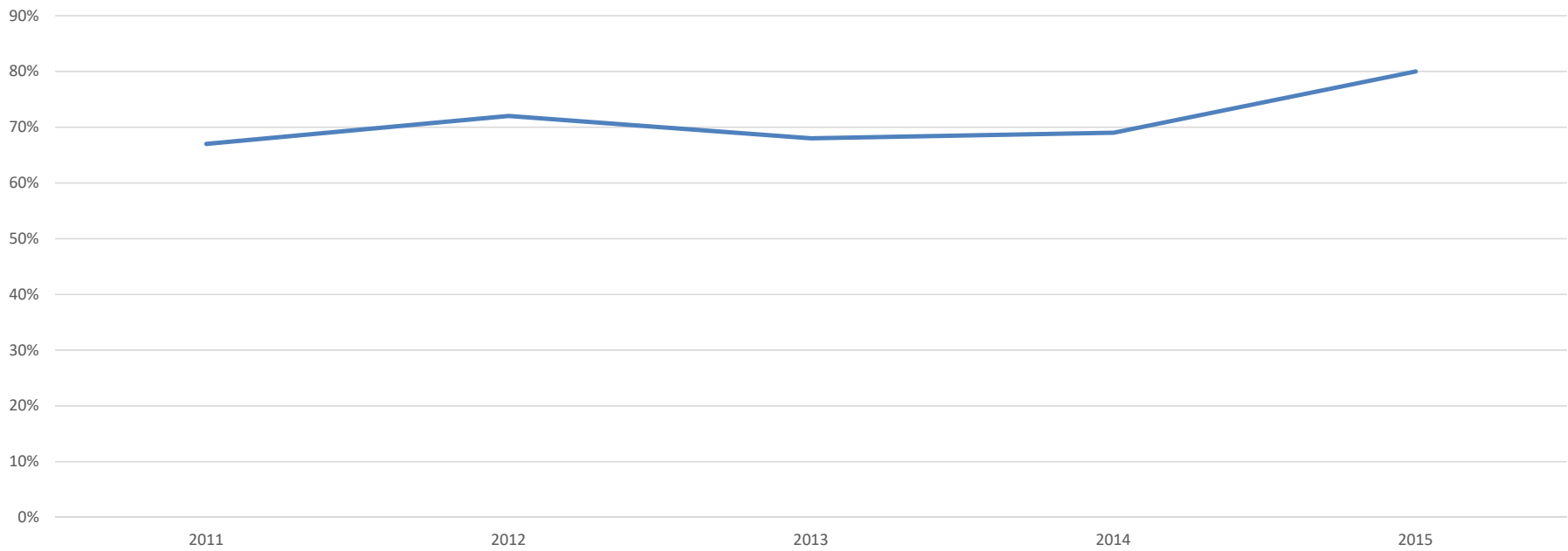
Design Characteristics: Color



Data presented is fictitious and provided for illustration purposes only.

Design Characteristics: Attribution

APD Loss Ratios

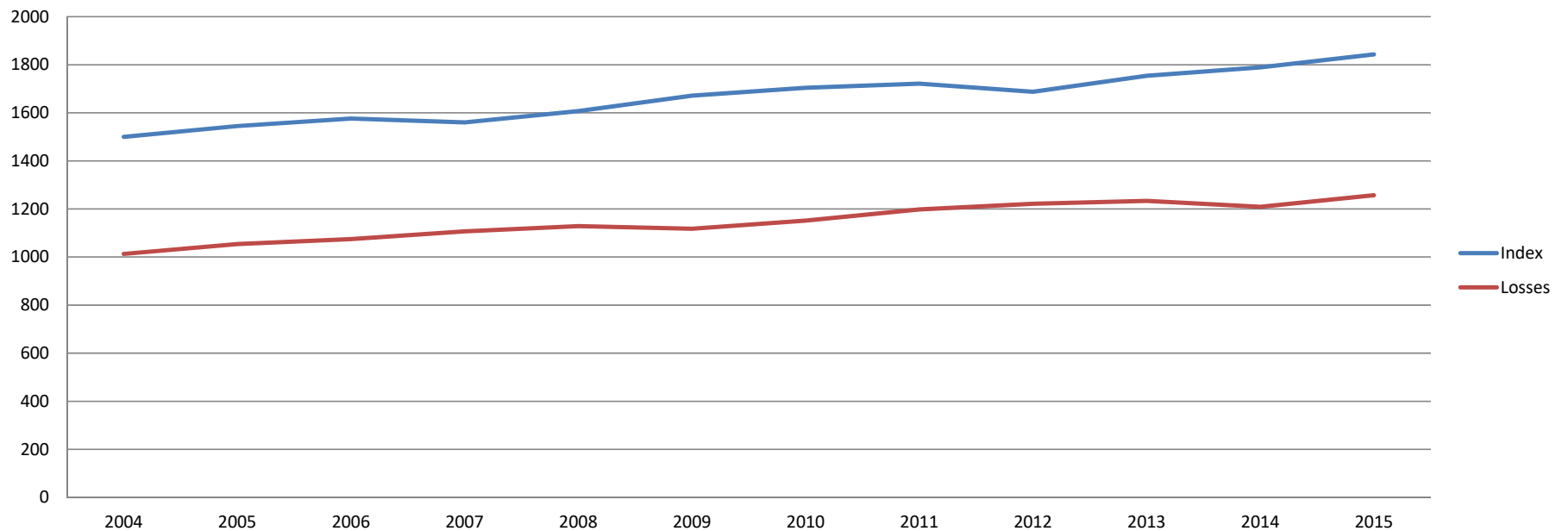


Source: UFC Insurance Company, Management Reports, Dec 31, 2015

Data presented is fictitious and provided for illustration purposes only.

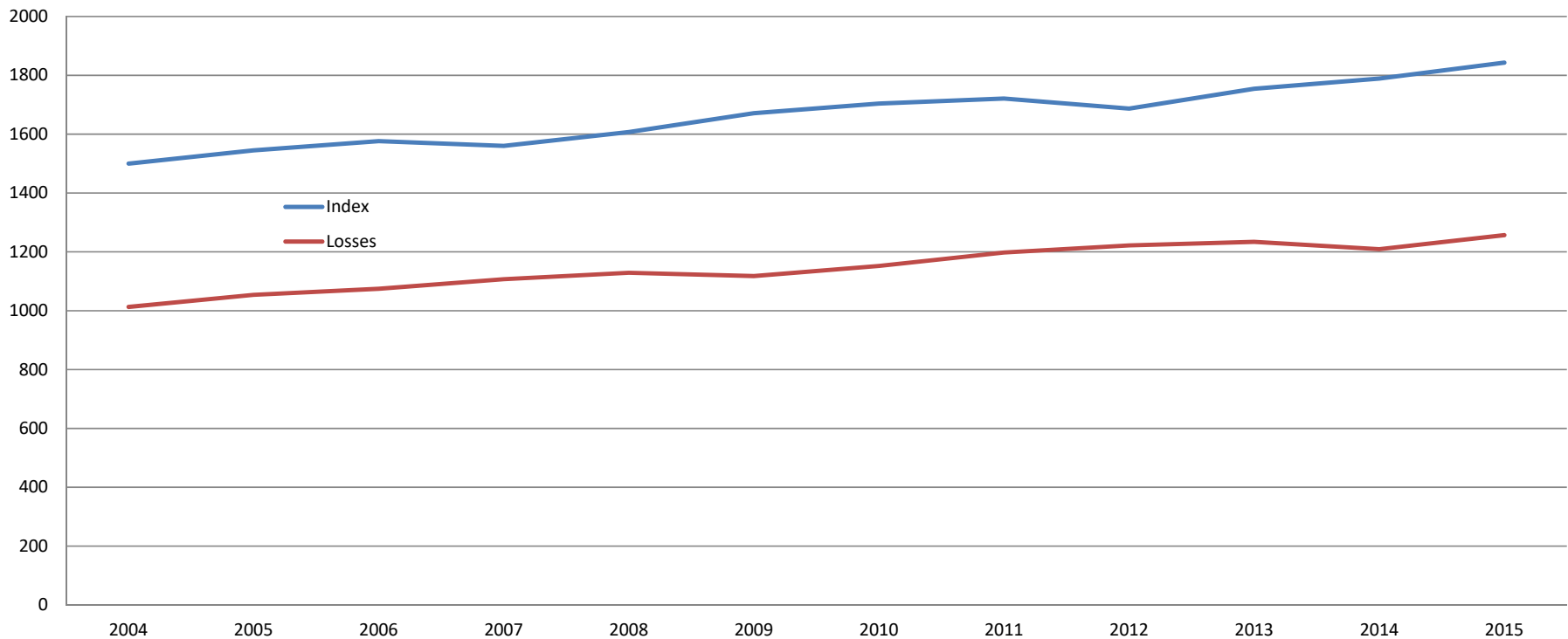
General PowerPoint Tips

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



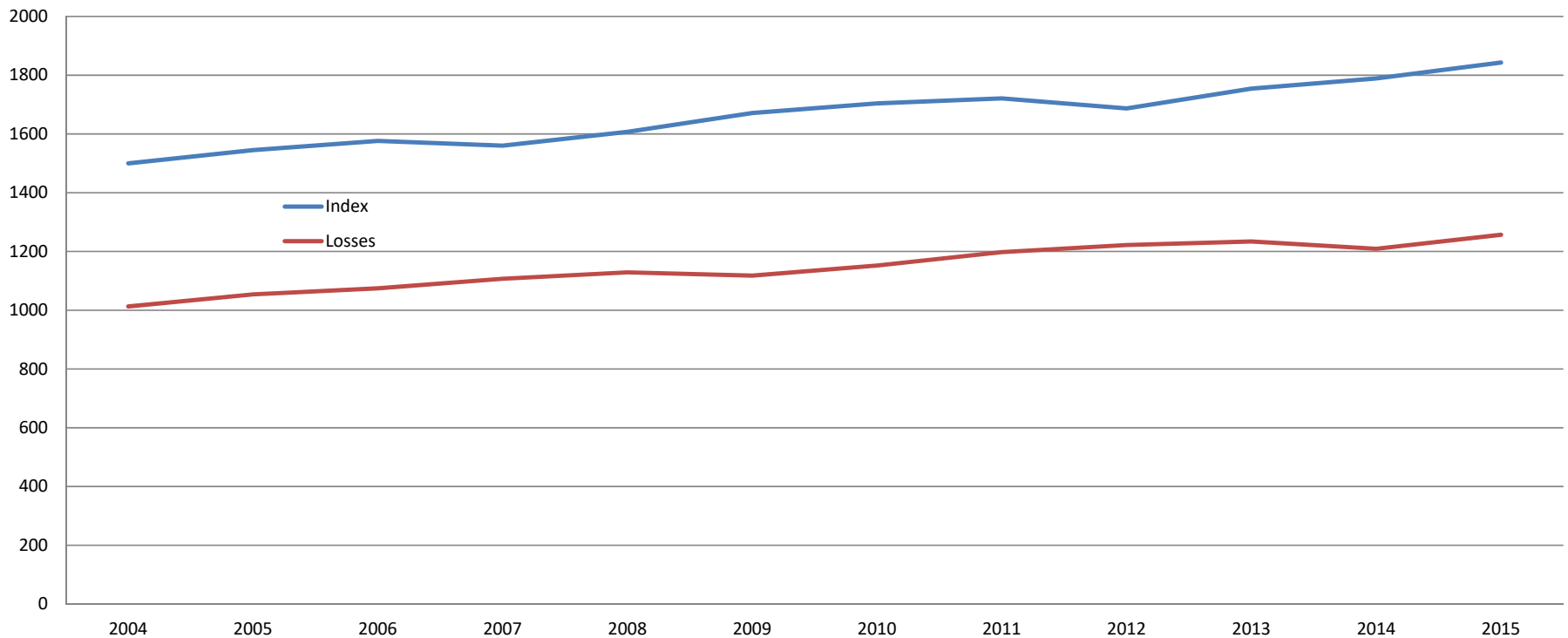
Data presented is fictitious and provided for illustration purposes only.

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

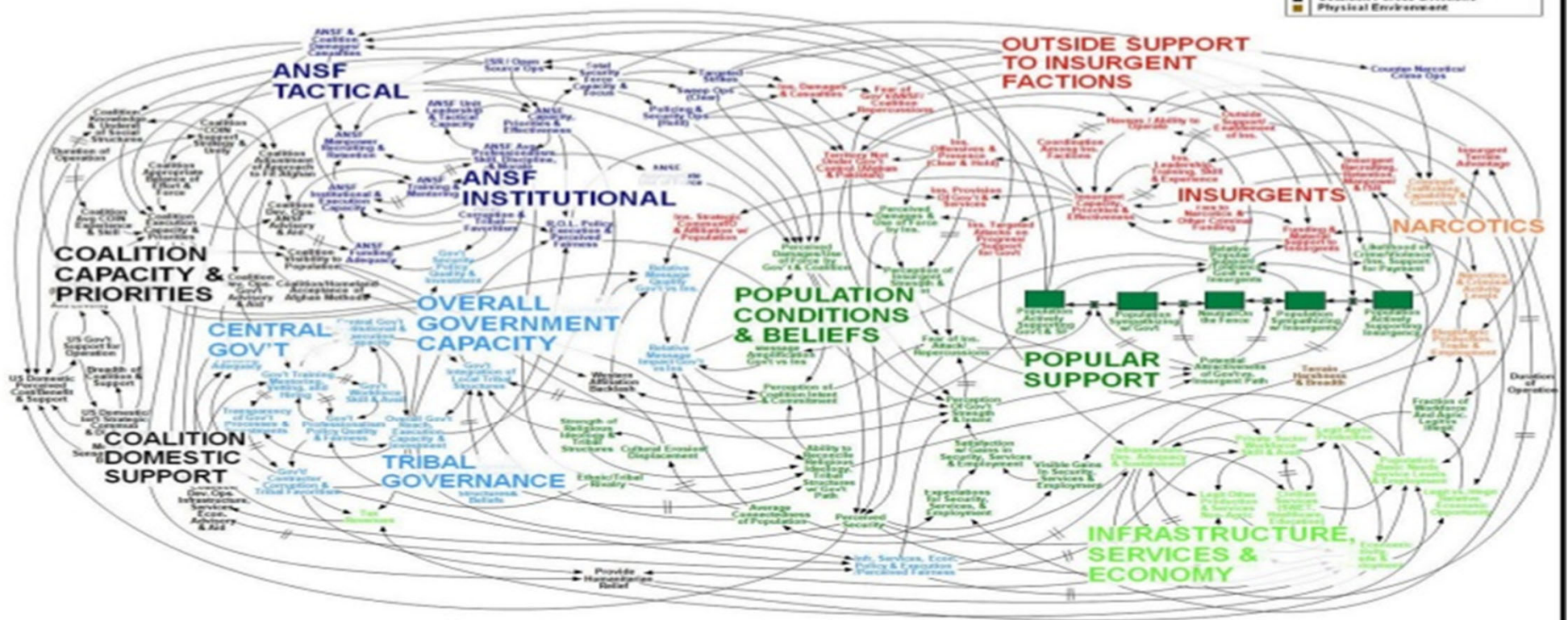


Data presented is fictitious and provided for illustration purposes only.

Afghanistan Stability / COIN Dynamics

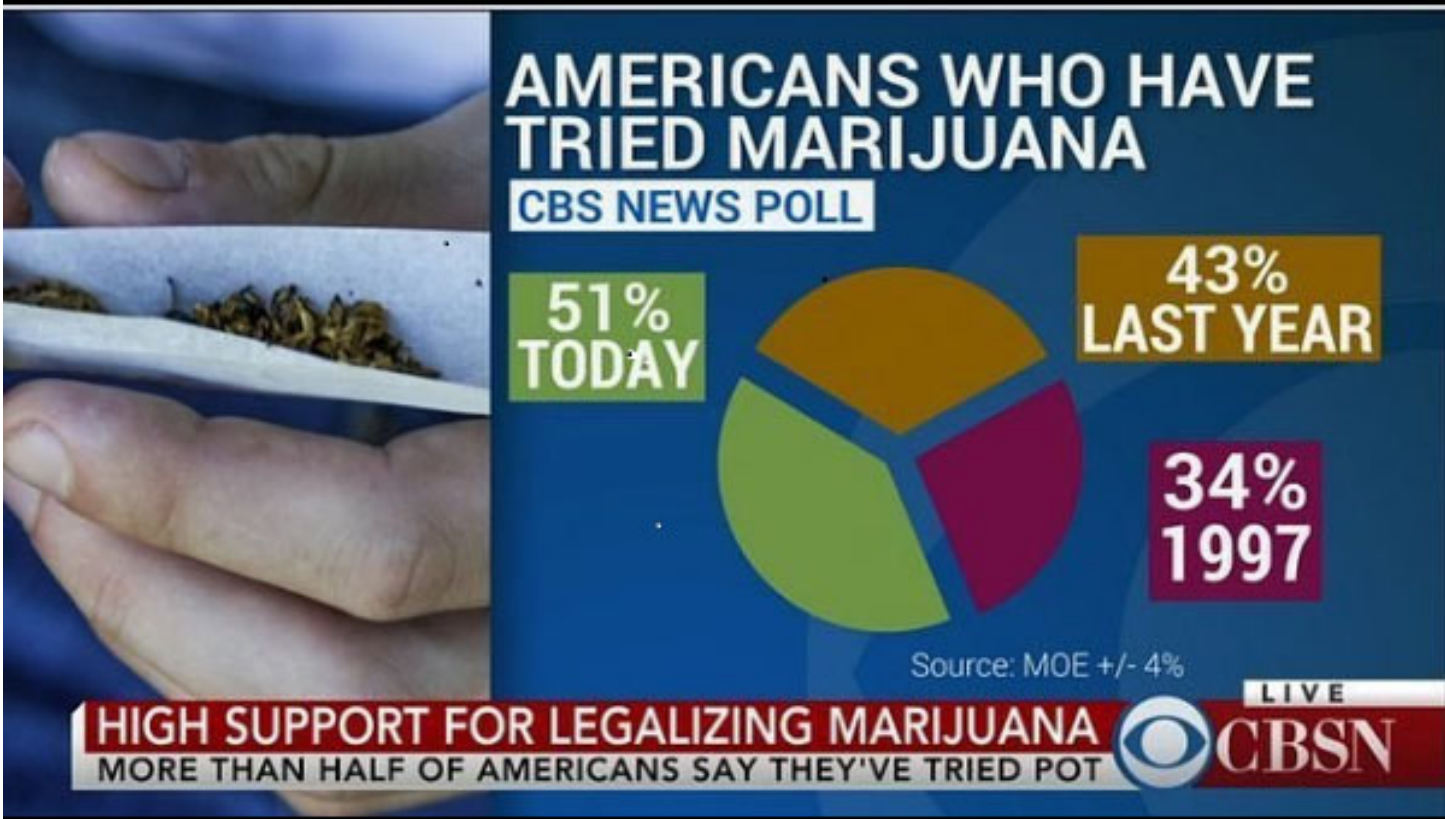
 = Significant Delay

- Population/Popular Support
- Infrastructure, Economy, & Services
- Government
- Afghanistan Security Forces
- Insurgents
- Crime and Narcotics
- Coalition Forces & Actions
- Physical Environment



WORKING DRAFT - V3

Review – What’s wrong with this graphic?



Closing

- Additional resources and references are available in the handout

