

**Report**

**of the**

**Society of Actuaries**

**Risk Management**

**Survey Subcommittee**

May 2005



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## **Introduction**

The attached report presents the results of the survey conducted by the Society of Actuaries Committee on Life Insurance Mortality and Underwriting Surveys on risk management practices of U.S. life insurance companies. Both direct (individual and group) life insurance and reinsurance were included in the survey. The survey did not cover practices associated with disability income, long-term care or annuities.

We asked for information related to a company's practices as of December 2004 with respect to catastrophic events, concentration of risk, reinsurance as a risk management tool, and alignment of underwriting and pricing experience. Fifty-eight companies responded to our survey.

The intent of the survey was to gather information on the many variations in risk management awareness and practices of U.S. companies surrounding their U.S. insurance life business. The Survey Committee believes the results of this survey will be of interest to a diverse audience, as the material is of interest to various disciplines. With that in mind, the Survey Committee tried to keep the report simple, while still providing the needed detail.

The intent of this report is to provide an objective observation of what companies are doing with respect to their risk management practices surrounding their U.S. insurance life business. This report describes the risk management practices used and their prevalence.

### **Caveat and Disclaimer**

While we anticipate and hope that the results prove useful for the industry, there are a couple of caveats that must be made:

- The data the Survey Committee received, while fairly comprehensive, is by no means a look at the whole industry or all risk management practices in the marketplace.
- The results are indicative of the risk management practices as of December 2004. Since risk management is fairly new and quickly evolving, practices may have changed since the survey was conducted.

This survey is published by the Society of Actuaries (SOA) and contains information based on input from companies engaged in the U.S. life insurance industry. The information published in this survey was developed from actual historical information and does not include any projected information. The SOA and the participating companies do not recommend, encourage or endorse any particular use of the information reported in this survey. The SOA makes no warranty, guarantee or representation whatsoever and assumes no liability or responsibility in connection with the use or misuse of this survey.

The Survey Committee thanks all of the companies who participated in this survey. We also thank those who helped us review this document and offered helpful suggestions and comments. Finally, the Survey Committee thanks a number of the Society of Actuaries staff for their help in completing this project, especially Jack Luff and Korrel Crawford, without whose help this could not have been completed.

Comments on this report and suggestions for the next survey are welcome and can be addressed to the Committee on Life Insurance Mortality and Underwriting Surveys c/o The Society of Actuaries.

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## **Executive Summary**

Some of the key results of the Risk Management survey are highlighted below. The statements and numbers in this executive summary reflect what was reported by the companies participating in the survey. The percentages reflect the proportion of all respondents answering a particular question and may or may not reflect broader industry practices.

### Company Information

- 58 companies participated in the survey, 50 life insurance companies and 8 reinsurers. The companies can be split into large (55%), medium (22%) and small (23%) sized insurers and reinsurers.
- Close to half (45%) of the companies had an acting/appointed risk manager who typically is an actuary (73%).

### Catastrophic Death Claims Due to Terrorism or Epidemics

- While senior management was more concerned about catastrophic death claims as a result of terrorist attacks (66%), rather than as a result of epidemics (36%), only some had purchased catastrophic coverage for terrorism (41%) and epidemic events (21%).
- The main reason for this was due to the high cost of catastrophe coverage for terrorism (65%) and epidemic events (42%).
- Companies did not typically attempt to model catastrophic death claims resulting from terrorist attacks (71%) or epidemic events (72%), unless they were a reinsurer or group insurance writer.
- The cost of catastrophic death claims resulting from terrorist attacks (86%) or epidemic events (91%) were typically not recognized in product pricing.

### Concentration of Risk

- Most companies did not limit exposure in a single location (67%), which was typically defined as one building (53%) or campus (30%).
- When requesting concentration information, zip code information was frequently requested (75%).
- Some reinsurers required location information (35%) as a requirement for placing reinsurance.
- Some companies managed their concentration risk by insuring their own employees (33%).

### Reinsurance

- The most popular primary purposes of reinsurance were earnings stabilization (33%) and retention management (21%), followed by offering competitive rates (18%) and capital management (14%).
- Companies often performed due diligence on their reinsurers (86%), checked credit ratings or rating agency reports (92%) and requested annual NAIC statutory statements (69%).
- Many ceding companies would not do business with a reinsurer rated below A- by A.M. Best or S&P (84%).
- Some insurers can recapture their ceded business if a reinsurer becomes financially impaired (41%) or if a reinsurer raises YRT rates on inforce business (35%).
- While some companies managed having too much exposure with a reinsurer by limiting the maximum pool share (31%) or by having a minimum number of reinsurers in the pool (30%), others didn't have a concern with this risk (33%).
- Business is typically ceded prior to having an executed treaty (79%).

- Much satisfaction was expressed about processes in place that ensured compliance with reserve credit regulations (87%), managed retention so as not to be over retained (86%) and ensured that all risks were ceded as required by reinsurance treaties (93%).
- Some dissatisfaction was expressed about the need to react to reinsurance premium rate increases on new business (23%) and inforce business (30%), limiting disagreements/misunderstandings with reinsurers (21%) and dealing with the exit of reinsurers (35%).

#### Alignment of Underwriting and Pricing on Experience

- All companies performed mortality studies, with most completed annually (61%).
- Actual to expected qualification rates by class were monitored (65%), usually on an annual basis (46%).
- While underwriting exceptions were commonplace (75%), exception rates were typically not monitored (67%).
- Internal underwriting control standards were to be approved or audited by a corporate area (60%) or by external auditors or regulatory body (25%).
- Changes to underwriting requirements were approved by either corporate, a multi-disciplined committee and/or by the reinsurers (60%).
- An internal audit program to monitor underwriters (63%) was common.
- A well-defined process for reviewing claims in the contestable period (91%) was widely used.

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## Company Info

This Survey requested information from companies with respect to their life insurance line of business only (no DI, LTC, Annuities). The questions in this section were used to provide background information and to further analyze the subsequent sections. If the result showed different risk management approaches based on the size or type of company, these differences were indicated. However, to ensure confidentiality, results were not shown if individual companies could be identified or if only one or two companies responded in a particular way.

What is the total face amount of your company's life insurance inforce?

**Table 1**

<b>Life Insurance Inforce</b>	<b>Percentage of Companies</b>
\$50 billion and higher	55%
\$14 - \$49.9 billion	22
\$5.5 - \$13.9 billion	9
Less than \$5.5 billion	14
<b># of respondents</b>	<b>58</b>

What is the majority of your company's total life insurance inforce?

**Table 2**

<b>Life Insurance Inforce</b>	<b>Percentage of Respondents</b>
Individual	83%
Group	17
<b># of respondents</b>	<b>58</b>

What is your company's primary line of business?

**Table 3**

<b>Line of Business</b>	<b>Percentage of Respondents</b>
Direct	86%
Reinsurance	14
<b># of respondents</b>	<b>58</b>

Does your company have an acting or appointed Risk Manager in your organization?

**Table 4**

<b>Risk Manager</b>	<b>Percentage of Respondents</b>
No	55%
Yes	45
<b># of respondents</b>	<b>58</b>

Further analysis of the data showed that larger companies and reinsurers were more likely to have an acting or appointed Risk Manager.

If yes, what is his/her title?

**Table 5**

<b>Title</b>	<b>Percentage of Respondents</b>
Chief Risk Officer / VP Risk Management	55%
Chief / Corporate Actuary	29
Chief Financial Officer	8
Other	8
<b># of respondents</b>	<b>26</b>

Is this person an actuary?

**Table 6**

<b>Risk Manager</b>	<b>Percentage of Respondents</b>
Yes	73%
No	27
<b># of respondents</b>	<b>26</b>

## Catastrophic & Concentration of Risk

Terrorism, epidemics such as SARS, and the Iraq War are events that present catastrophic mortality potential. While catastrophic events may have been recognized in the past, they have not played a significant role in most risk management schemes. Recent events have brought them to the forefront. Not only are catastrophic events being recognized, but some companies are now also quantifying their potential and considering specific actions.

### Terrorist Events

Is your company's senior management currently concerned about catastrophic death claims as a result of terrorist attacks?

**Table 7**

<b>Concerned</b>	<b>Percentage of Respondents</b>
Yes	66%
No	34
<b># of respondents</b>	<b>58</b>

Further analysis of the data showed that reinsurers, group writers and larger insurance companies were more concerned about death claims as a result of terrorist attacks.

Which of the following describes your company's reinsurance coverage with regard to catastrophic death claims as a result of terrorist attacks?

**Table 8**

<b>Reinsurance Coverage</b>	<b>Percentage of Respondents</b>
Don't have coverage	43%
Don't have coverage; however desire coverage	16
Have coverage	12
Have coverage and desire more coverage	29
<b># of respondents</b>	<b>58</b>

Further analysis of the data showed that reinsurers had more coverage than direct insurers. Companies who wrote mainly group business had more coverage than those writing mainly individual business. Of those that didn't have coverage, more group writers indicated that they desired more coverage versus individual writers.

If your company has catastrophic coverage, does it now include or exclude nuclear, chemical or biological (NCB) risks?

**Table 9**

<b>Reinsurance Coverage</b>	<b>Percentage of Respondents</b>
Includes NCB	52%
Excludes NCB	48
<b># of respondents</b>	<b>23</b>

Further analysis of the data showed that most of the companies that had terrorism coverage and desired more, already had terrorism coverage that included NCB risks.

Is your company retaining additional or increased claims risk because of the high cost of catastrophic coverage for terrorism risk?

**Table 10**

<b>Retain additional risk</b>	<b>Percentage of Respondents</b>
Yes	65%
No	35
<b># of respondents</b>	<b>57</b>

Does your company use any of the following alternative solutions to traditional CAT coverage? (Respondents were asked to check all that apply.)

**Table 11**

<b>Alternative Solutions</b>	<b>Percentage of Respondents</b>
Traditional Reinsurance	51%
Limit Exposure on Business Written	24
Pooled Exposure Approach	20
Aggregate Stop-Loss	10
Financial Reinsurance (spread loss)	5
Cat Bonds	2
Accidental Death “Carveout”	2
<b># of respondents</b>	<b>58</b>

Does your company attempt to model catastrophic death claims resulting from terrorist attacks?

**Table 12**

<b>Model death claims</b>	<b>Percentage of Respondents</b>
Yes	29%
No	71
<b># of respondents</b>	<b>58</b>

Further analysis of the data showed that more reinsurers and group writers modeled catastrophic death claims.

If yes, who does the modeling?

**Table 13**

<b>Who does modeling</b>	<b>Percentage of Respondents</b>
Internal	59%
Reinsurer / reinsurance brokers	29
Consultants	12
<b># of respondents</b>	<b>17</b>

Further analysis of the data showed that all reinsurers do their own modeling, whereas only about half of the direct writers did.

Does your company currently recognize the cost of catastrophic death claims resulting from terrorist attacks in your product pricing?

**Table 14**

<b>Recognize cost in pricing</b>	<b>Percentage of Respondents</b>
Yes	14%
No	86
<b># of respondents</b>	<b>58</b>

#### Epidemic Events (excluding terrorism)

Is your company's senior management currently concerned about catastrophic death claims as a result of epidemic catastrophes (1918 Flu type, HIV, SARS)?

**Table 15**

<b>Concerned</b>	<b>Percentage of Respondents</b>
Yes	36%
No	64
<b># of respondents</b>	<b>58</b>

Further analysis of the data showed that whereas more group writers were concerned about terrorism, more individual writers were concerned about epidemics.

Which of the following describes your company's reinsurance coverage with regard to catastrophic death claims as a result of epidemic catastrophes?

**Table 16**

<b>Reinsurance Coverage</b>	<b>Percentage of Respondents</b>
Don't have coverage	69%
Don't have coverage; however desire coverage	10
Have coverage	9
Have coverage and desire more coverage	12
<b># of respondents</b>	<b>58</b>

Is your company retaining additional or increased claims risk because of the high cost of catastrophic coverage for epidemic events?

**Table 17**

<b>Retain additional risk</b>	<b>Percentage of Respondents</b>
Yes	42%
No	58
<b># of respondents</b>	<b>57</b>

Does your company attempt to model catastrophic death claims resulting from epidemics?

**Table 18**

Model death claims	Percentage of Respondents
Yes	28%
No	72
<b># of respondents</b>	<b>58</b>

Further analysis of the data showed that while more individual writers were concerned about epidemics, more group writers modeled the risk.

If yes, which of the following form the basis for the epidemic parameters? (Respondents were asked to check all that apply.)

**Table 19**

Basis	Percentage of Respondents
Specific increase in normal mortality	53%
Modeled after the 1918 Flu Epidemic	47
SARS basis	12
Other (Modeled AIDS claims)	6
<b># of respondents</b>	<b>16</b>

If yes, who does the modeling?

**Table 20**

Who does modeling	Percentage of Respondents
Internal	94%
Reinsurer / reinsurance brokers	6
Consultants	0
<b># of respondents</b>	<b>17</b>

Does your company currently recognize the cost of catastrophic death claims resulting from an epidemic scenario in your product pricing?

**Table 21**

Recognize cost in pricing	Percentage of Respondents
Yes	9%
No	91
<b># of respondents</b>	<b>58</b>

Comparing the results for terrorism versus epidemics found:

- Two-thirds of the respondents indicated that their senior management was concerned about catastrophic claims as a result of terrorist events, while only one-third were concerned about catastrophic claims as a result of an epidemic.
- 41% of respondents had catastrophe reinsurance to cover terrorism, compared to 21% who had coverage for epidemics.

## Concentration of Risk

The respondents were asked to answer the following questions, considering all concentrations of the respondent's company's insurance coverage, not just as they related to terrorism or epidemic risks.

What is your company's definition of single location?

**Table 22**

<b>Definition of Location</b>	<b>Percentage of Respondents</b>
One building	53%
Campus	30
Within one square mile	17
<b># of respondents</b>	<b>47</b>

Further analysis of the data showed that smaller companies and reinsurers had a more restrictive definition of a single location.

Does your company limit exposure in a single location?

**Table 23**

<b>Limit Exposure</b>	<b>Percentage of Respondents</b>
Yes	9%
Yes – but mostly just for COLI/BOLI/Group	24
No	67
<b># of respondents</b>	<b>55</b>

Further analysis of the data showed that it is more likely that larger companies and reinsurers limited their exposures.

If yes, what are the limits?

**Table 24**

<b>Limits</b>	<b>Percentage of Respondents</b>
Greater than \$150 million	19%
Between \$101 and \$150 million	19
Between \$51 and \$100 million	43
Less than or equal to \$50 million	19
<b># of respondents</b>	<b>16</b>

Further analysis of the data showed that larger companies had larger limits, whereas reinsurers and group writers had smaller limits.

At what level of detail does your company require information? (Respondents were asked to check all that apply.)

**Table 25**

<b>Level of Detail</b>	<b>Percentage of Respondents</b>
Zip Code	75%
Address	63
State	50
City	48
Other (corporate head office)	10
<b># of respondents</b>	<b>40</b>

Does your company charge higher premiums to those clients who don't provide detailed information by location?

**Table 26**

<b>Higher Premiums If Don't Provide Detailed Information</b>	<b>Percentage of Respondents</b>
Yes	4%
No	96
<b># of respondents</b>	<b>54</b>

Do your reinsurers make providing location information a requirement for placing reinsurance?

**Table 27**

<b>Location Information Required</b>	<b>Percentage of Respondents</b>
Yes	35%
No	65
<b># of respondents</b>	<b>54</b>

Does your company cross-reference your assets with your mortality exposure? e.g. If your company has a mortgage on the building where your mortality concentration is located? If your company holds stocks or bonds in the company whose employees are being insured?

**Table 28**

<b>Cross Reference Assets/Mortality</b>	<b>Percentage of Respondents</b>
Yes	6%
No	94
<b># of respondents</b>	<b>54</b>

Many companies insure their own employees and thus have concentration issues. Does your company do anything to manage this risk?

**Table 29**

<b>Manage Employee Risk</b>	<b>Percentage of Respondents</b>
Yes	33%
No	67
<b># of respondents</b>	<b>54</b>

If yes, what does your company do?

**Table 30**

<b>Manage Employee Risk</b>	<b>Percentage of Respondents</b>
Purchase reinsurance	39%
Purchase insurance	28
Monitor and manage exposure such as through safety standards, travel policies, etc.	28
Purchase catastrophe reinsurance	11
<b># of respondents</b>	<b>18</b>

Responses total more than 100% since some respondents indicated more than one action.

## Reinsurance

While reinsurance is typically seen as a risk management tool used by a ceding company, the use of reinsurance and the associated business relationships with reinsurers creates risk in and of itself. The following questions were designed to assess the ceding company's awareness of this risk and to determine what, if any, mitigation procedures it may have in place. Reinsurers were asked to answer these questions based on the business they cede to their retrocessionnaires.

The question asked was the following: What percentage of your company's reinsurance business (by volume) is ceded on (1) an excess of retention basis, (2) a first dollar quota-share (FDQS) basis, or (3) some other basis? These three percentages should sum to 100% of your reinsurance.

Fifty-six companies answered this question. Individual responses were summarized by grouping into the ranges shown in the table below. For example, a company that indicated that 10% of their reinsurance was ceded on an excess basis and the remaining 90% of their reinsurance was ceded on a FDQS basis would have been included in the third row of the table.

Four of the fifty-six companies indicated that a portion of their reinsurance was on a reduced-retention facultative basis, where the facultative portion ranged from 12-15%. For these companies, the facultative portion was added to the FDQS portion before being included in the table.

**Table 31**

<b>Response Groups</b>	<b>Percentage of Respondents</b>
100% of reinsurance is on an excess basis	18%
50-99% is on an excess basis with the remaining 1-50% on a FDQS basis	16
10-49% is on an excess basis with the remaining 51-90% on a FDQS basis	20
1-9% is on an excess basis with the remaining 91-99% on a FDQS basis	23
100% is on a FDQS basis	18
50% is on a FDQS basis and 50% is on a non-proportional stop-loss basis	2
No business is reinsured	3
<b># of respondents</b>	<b>56</b>

What are your company's purposes for using reinsurance? (Respondents were asked to check all that apply.)

**Table 32**

<b>Purpose of Reinsurance</b>	<b>Percentage of Respondents</b>
Retention management (capacity to write large cases)	88%
Earnings stabilization	63
Capital management	60
Offering competitive rates	58
Entry into new market	49
Manage concentration risk	46
Increase profit margin on retained business	37
Entry into new product	14
Other (underwriting expertise)	2
<b># of respondents</b>	<b>57</b>

Further analysis of the data showed that direct writers purchased reinsurance more often for earnings stabilization and retention management needs while reinsurers purchased reinsurance for capital management.

What is your company's primary purpose for using reinsurance (Respondents were asked to choose only one)?

**Table 33**

<b>Primary Purpose of Reinsurance</b>	<b>Percentage of Respondents</b>
Earnings stabilization	33%
Retention management (capacity to write large cases)	21
Offering competitive rates	18
Capital management	14
Increase profit margin on retained business	7
Manage concentration risk	5
Entry into new product/market	2
<b># of respondents</b>	<b>56</b>

Does your company perform a due diligence process on your reinsurers?

**Table 34**

<b>Due Diligence on Reinsurers</b>	<b>Percentage of Respondents</b>
Yes	86%
No	14
<b># of respondents</b>	<b>58</b>

As part of your company's due diligence process which of the following items are requested from your reinsurers? (Respondents were asked to check all that apply.)

**Table 35**

<b>Items Requested</b>	<b>Percentage of Respondents</b>
Credit Ratings or Rating Agency Reports (A.M. Best, S&P, Moody's, etc.)	92%
NAIC Annual Statutory Statement	69
Independent Auditors Report	27
Complete Schedule S	21
Annual Report to Policyholder	19
Independent Audit Opinion (GAAP)	15
Management's Discussion & Analysis Report (MD&A)	15
Schedule D	13
IRIS Ratios	13
Letter of Internal Control	6
Broker report	6
Other	21
<b># of respondents</b>	<b>48</b>

Other items requested included: audited GAAP statements; Canadian Reinsurer Reports to OSFI; RBC ratio and surplus.

Further analysis of the results showed that larger companies requested more items.

How often does your company request these materials?

**Table 36**

<b>Frequency Requested</b>	<b>Percentage of Respondents</b>
Annually	68%
Quarterly	6
As needed	30
<b># of respondents</b>	<b>50</b>

Responses total more than 100% since some respondents indicated different frequencies depending on the report.

How often does your company formally review the financial strength and status of its reinsurers?

**Table 37**

<b>Frequency of Formal Review</b>	<b>Percentage of Respondents</b>
Annually	55%
Quarterly	9
As needed	36
<b># of respondents</b>	<b>56</b>

How often does your company informally review/monitor the financial strength of its reinsurers?

**Table 38**

<b>Frequency of Informal Review</b>	<b>Percentage of Respondents</b>
Annually	15%
Quarterly	9
Monthly	11
Weekly	4
Daily	2
As needed	59
<b># of respondents</b>	<b>57</b>

What is the lowest rating your company will accept to do business with a reinsurer?

**Table 39**

<b>A.M. Best Rating</b>	<b>Percentage of Respondents</b>
A+ (superior)	4%
A (excellent)	32
A- (excellent)	48
B++ (very good)	2
B+ (very good)	12
Not defined	2
<b># of respondents</b>	<b>50</b>

**Table 40**

<b>S&amp;P Rating</b>	<b>Percentage of Respondents</b>
AA (very strong)	6%
AA- (very strong)	8
A+ (strong)	5
A (strong)	40
A- (strong)	25
BBB+ (good)	2
BBB (good)	2
Not defined	12
<b># of respondents</b>	<b>40</b>

**Table 41**

<b>Moody's Rating</b>	<b>Percentage of Respondents</b>
Aa2 (excellent)	3%
Aa3 (excellent)	7
A1 (good)	31
A2 (good)	10
A3 (good)	20
Not defined	29
<b># of respondents</b>	<b>30</b>

**Table 42**

<b>Fitch Rating</b>	<b>Percentage of Respondents</b>
AA- (very strong)	7%
A (strong)	29
A- (strong)	17
BBB (good)	3
BBB- (good)	3
BB+ (moderately weak)	3
Not defined	38
<b># of respondents</b>	<b>29</b>

What other major thresholds would prevent your company from doing business with a reinsurer?  
(Respondents were asked to check all that apply.)

**Table 43**

<b>Other Thresholds</b>	<b>Percentage of Respondents</b>
Price	86%
Treaty terms & provisions	86
Capital / surplus position	75
Automatic / facultative capacity	51
Management / owner	47
Counterparty exposure	8
Other (administration)	4
<b># of respondents</b>	<b>51</b>

Do any of your company's current new business reinsurance treaties allow for immediate recapture when a reinsurer becomes financially impaired or when there is a change in its financial status (as determined by your due diligence process)?

**Table 44**

<b>Recapture if Financially Impaired</b>	<b>Percentage of Respondents</b>
Yes	41%
No	59
<b># of respondents</b>	<b>56</b>

Further analysis of the data showed that more direct writers' treaties with their reinsurers allowed for immediate recapture when the reinsurer became financially impaired compared to reinsurers' treaties with their retrocessionaires.

If yes, have the terms been defined in advance?

**Table 45**

<b>Recapture Terms Defined</b>	<b>Percentage of Respondents</b>
Yes	87%
No	13
<b># of respondents</b>	<b>23</b>

If any of your company's current new business reinsurance treaties allow for immediate recapture when a reinsurer becomes financially impaired, what triggers this ability to recapture?

**Table 46**

<b>Recapture Triggers</b>	<b>Percentage of Respondents</b>
Rating downgrade	55%
Change in financial strength (e.g. RBC ratio)	23
Insolvency	23
Other	5
<b># of respondents</b>	<b>22</b>

Responses total more than 100% since some respondents indicated that more than one trigger was used.

Do any of your company's current new business reinsurance treaties allow for immediate recapture if a reinsurer raises its YRT rates on inforce business?

**Table 47**

<b>Recapture if Rates are Increased</b>	<b>Percentage of Respondents</b>
Yes	35%
No	65
<b># of respondents</b>	<b>51</b>

If yes, have the terms been defined in advance?

**Table 48**

<b>Recapture Terms Defined</b>	<b>Percentage of Respondents</b>
Yes	24%
No	76
<b># of respondents</b>	<b>17</b>

How does your company manage having too much exposure with a reinsurer? (Respondents were asked to check all that apply.)

**Table 49**

<b>Manage Exposure</b>	<b>Percentage of Respondents</b>
We don't have a concern with this risk	33%
We limit the maximum pool share we give to any single reinsurer	31
We always have a minimum number of reinsurers in our pools	30
We limit the total amount ceded to any single reinsurer	11
Other	11
<b># of respondents</b>	<b>54</b>

Other ways to manage having too much exposure included using letters of credit and dealing only with large reinsurers.

Does your company monitor the total amount of business ceded to any one reinsurer?

**Table 50**

<b>Monitor Business Ceded</b>	<b>Percentage of Respondents</b>
Yes	84%
No	16
<b># of respondents</b>	<b>56</b>

If yes, does your company take action when certain limits are exceeded?

**Table 51**

<b>Action Taken if Limits Exceeded</b>	<b>Percentage of Respondents</b>
Yes	48%
No	52
<b># of respondents</b>	<b>44</b>

Those who answered yes were asked to indicate what action is taken:

**Table 52**

<b>Action Taken if Limits Exceeded</b>	<b>Percentage of Respondents</b>
Limit business with that reinsurer	40%
Find new reinsurer	20
Recapture	15
Have not encountered yet	10
Other	20
<b># of respondents</b>	<b>44</b>

Responses total more than 100% since some respondents indicated more than one action was taken.

When a reinsurer merges with another, does your company take action if the total amount ceded to the new entity exceeds certain limits?

**Table 53**

<b>Action Taken if Reinsurer Merges</b>	<b>Percentage of Respondents</b>
Yes	71%
No	29
<b># of respondents</b>	<b>55</b>

What action is taken?

**Table 54**

Action Taken if Limits Exceeded	Percentage of Respondents
Find new reinsurer	36%
Limit business with that reinsurer	29
Recapture	7
Have not encountered yet	7
Other	21
<b># of respondents</b>	<b>14</b>

Does your company have a dedicated resource whose primary responsibility is to manage the reinsurance process, including treaty negotiations and administration?

**Table 55**

Dedicated Reinsurance Resource	Percentage of Respondents
Yes	58%
No	42
<b># of respondents</b>	<b>57</b>

Further analysis of the data showed that reinsurers and larger companies were more likely to have a dedicated resource.

Who drafts your company's new reinsurance treaties?

**Table 56**

Draft Reinsurance Treaties	Percentage of Respondents
My reinsurer	61%
My company	39
Broker	11
<b># of respondents</b>	<b>57</b>

Some respondents indicated that both their company and their reinsurer drafted the treaties. Further analysis of the data showed that smaller companies more often have their reinsurers draft the treaties.

What is the normal difference in time between the effective date of a new treaty and the date it is actually signed?

**Table 57**

Time Difference	Percentage of Respondents
Less than 3 months	40%
3-6 months	37
6-12 months	23
<b># of respondents</b>	<b>57</b>

Does your company typically cede business prior to having an executed treaty?

**Table 58**

Cede Prior to Executed Treaty	Percentage of Respondents
Yes	79%
No	21
<b># of respondents</b>	<b>57</b>

Respondents were asked to rate their satisfaction with the following processes that their company may have in place. The following scale was used:

Very Satisfied	Adequate processes are in place, which are regularly audited and reviewed by senior management.
Somewhat Satisfied	Adequate processes are in place, but may not be regularly audited or reviewed by senior management.
Somewhat Dissatisfied	Adequate processes <u>may</u> be in place, but have never been audited or reviewed by senior management.
Very Dissatisfied	No processes are in place.

**Table 59**

Ensure Compliance with Reserve Credit Regulations	Percentage of Respondents
Very Satisfied	36%
Satisfied	51
Dissatisfied	11
Very Dissatisfied	2
<b># of respondents</b>	<b>55</b>

Further analysis of the data showed that all reinsurers and group writers indicated that they were either very satisfied or satisfied with their ability to ensure compliance. Larger companies were more likely to be either very satisfied or satisfied than smaller companies.

**Table 60**

Manage Retention So Not Over Retained	Percentage of Respondents
Very Satisfied	30%
Satisfied	56
Dissatisfied	9
Very Dissatisfied	5
<b># of respondents</b>	<b>57</b>

**Table 61**

<b>Ensure All Risks Are Ceded As Required by Reinsurance Treaties</b>	<b>Percentage of Respondents</b>
Very Satisfied	41%
Satisfied	52
Dissatisfied	7
Very Dissatisfied	0
<b># of respondents</b>	<b>56</b>

Further analysis of the data showed that reinsurers were more likely to be either dissatisfied that they could ensure that all risks were ceded as required by the reinsurance treaties.

**Table 62**

<b>React to Reinsurance Premium Rate Increases on New Business</b>	<b>Percentage of Respondents</b>
Very Satisfied	32%
Satisfied	45
Dissatisfied	18
Very Dissatisfied	5
<b># of respondents</b>	<b>56</b>

Further analysis of the data showed that direct writers were more likely to be either dissatisfied or very dissatisfied that they could react to reinsurance premium rate increases on new business than reinsurers.

**Table 63**

<b>React to Reinsurance Premium Rate Increases on Inforce Business</b>	<b>Percentage of Respondents</b>
Very Satisfied	21%
Satisfied	48
Dissatisfied	25
Very Dissatisfied	6
<b># of respondents</b>	<b>53</b>

**Table 64**

<b>Limit Disagreements or Misunderstandings (which may lead to Arbitration)</b>	<b>Percentage of Respondents</b>
Very Satisfied	26%
Satisfied	53
Dissatisfied	16
Very Dissatisfied	5
<b># of respondents</b>	<b>57</b>

Further analysis of the data showed that smaller companies were more likely to be either dissatisfied or very dissatisfied that they could limit disagreements or misunderstandings.

**Table 65**

<b>Deal with Exit of Reinsurers (through M&amp;A, exit market, etc.)</b>	<b>Percentage of Respondents</b>
Very Satisfied	18%
Satisfied	47
Dissatisfied	26
Very Dissatisfied	9
<b># of respondents</b>	<b>57</b>

## **Alignment of Underwriting and Pricing on Experience**

Price competition, the tightening of the reinsurance market, the speed of product/pricing changes, and the proliferation of preferred classes have all focused more attention on the match between underwriting practices and pricing. This is why risk management of these issues has become more important.

Does your company perform mortality studies on its own experience?

**Table 66**

<b>Perform Mortality Studies</b>	<b>Percentage of Respondents</b>
Yes	100%
<b># of respondents</b>	<b>56</b>

If yes, how often?

**Table 67**

<b>Frequency of Study</b>	<b>Percentage of Respondents</b>
More frequently than annual	20%
Annually	61
Every 2 <sup>nd</sup> year	7
Less frequently than every 2 years	13
<b># of respondents</b>	<b>56</b>

Further analysis of the data showed that smaller companies monitored their results more frequently.

Does your company monitor its actual to expected percentage that qualifies for each preferred / standard class?

**Table 68**

<b>Monitor Actual to Expected</b>	<b>Percentage of Respondents</b>
Yes	65%
No	35
<b># of respondents</b>	<b>54</b>

If yes, how frequently?

**Table 69**

<b>Frequency of Monitoring</b>	<b>Percentage of Respondents</b>
Monthly	14%
Quarterly	29
Annually	45
Less frequently than annually	9
Other	3
<b># of respondents</b>	<b>35</b>

At what level does your company take action if actual experience does not meet expected?

**Table 70**

At What Level Action is Taken	Percentage of Respondents
No specific trigger; judgment used; depends on materiality	28%
When A/E exceeds certain level (between 110% - 200%)	24
Measure tied to profitability	10
Unknown	10
Other	28
<b># of respondents</b>	<b>21</b>

For those who answered other, most indicated that their company took action on an ongoing basis.

If action does not meet expected, what is the most likely action taken?

**Table 71**

Most Likely Action	Percentage of Respondents
Change pricing	41%
Wait and study further	29
Change underwriting practices	16
Combination of above	12
Other (adjust reserves)	2
<b># of respondents</b>	<b>51</b>

Does your company measure its not taken rate as part of its expense management process?

**Table 72**

Measure Not Taken Rate	Percentage of Respondents
Yes	67%
No	33
<b># of respondents</b>	<b>54</b>

If yes, is it compared to the pricing assumptions?

**Table 73**

Compared to Pricing Assumptions	Percentage of Respondents
Yes	34%
No	66
<b># of respondents</b>	<b>35</b>

Does your company make underwriting exceptions?

**Table 74**

Underwriting Exceptions	Percentage of Respondents
Yes	75%
No	25
<b># of respondents</b>	<b>53</b>

If yes, is there a well-defined set of rules for making underwriting exceptions?

For qualifying by preferred class:

**Table 75**

<b>Rules for Qualifying by Preferred Class</b>	<b>Percentage of Respondents</b>
Yes	69%
No	31
<b># of respondents</b>	<b>39</b>

For qualifying for residual standard:

**Table 76**

<b>Rules for Qualifying for Residual Standard</b>	<b>Percentage of Respondents</b>
Yes	58%
No	42
<b># of respondents</b>	<b>36</b>

Does your company monitor its exception rate?

**Table 77**

<b>Monitor Exception Rate</b>	<b>Percentage of Respondents</b>
Yes	33%
No	67
<b># of respondents</b>	<b>43</b>

If yes, what is the maximum acceptable exception rate?

For those 14 companies that responded, the maximum acceptable exception rate varied between 2% and 6%.

Does your company fully retain the amount of the exception?

**Table 78**

<b>Fully Retain Exception</b>	<b>Percentage of Respondents</b>
Yes	22%
No	78
<b># of respondents</b>	<b>36</b>

If no, does your reinsurer approve the cases?

**Table 79**

<b>Reinsurer Approves</b>	<b>Percentage of Respondents</b>
On a case by case basis	71%
On an aggregate basis	29
<b># of respondents</b>	<b>28</b>

Does your company have well-defined profitability pricing standards?

**Table 80**

Well-Defined Profitability Pricing Standards	Percentage of Respondents
Yes	93%
No	7
<b># of respondents</b>	<b>54</b>

Which assumptions does your company sensitivity test? (Respondents were asked to check all that apply.)

**Table 81**

Sensitivity Testing	Percentage of Respondents
Mortality assumption	96%
Persistency assumption	94
Expense assumption	83
<b># of respondents</b>	<b>52</b>

Does your company use special programs as a way to mitigate risk of substandard lives?

**Table 82**

Special Programs to Mitigate Risk of Substandard Lives	Percentage of Respondents
Yes	30%
No	70
<b># of respondents</b>	<b>53</b>

If yes, what programs are used? (Respondents were asked to check all that apply.)

**Table 83**

Programs Used	Percentage of Respondents
Table waive / shave programs (reinsured)	31%
Extensive reinsurance shopping	31
Table waive / shave programs (company retains)	19
Reduction in retention for impaired risks	19
<b># of respondents</b>	<b>17</b>

Does your company have internal underwriting control standards that must be approved and / or audited by a corporate area?

**Table 84**

Underwriting Control Standards Approved/Audited by Corporate Area	Percentage of Respondents
Yes	60%
No	40
<b># of respondents</b>	<b>53</b>

If yes, how frequently would it be monitored?

**Table 85**

Frequency of Monitoring	Percentage of Respondents
Monthly	9%
Quarterly	9
Annually	34
Less frequently than annually	42
Other	6
<b># of respondents</b>	<b>32</b>

Does your company have internal underwriting controls standards that must be approved and/or audited by external auditors or regulating body?

**Table 86**

Underwriting Control Standards Approved/Audited by External Auditors or Regulating Body	Percentage of Respondents
Yes	25%
No	75
<b># of respondents</b>	<b>52</b>

If yes, how frequently would they be monitored?

**Table 87**

Frequency of Monitoring	Percentage of Respondents
Annually	54%
Less frequently than annually	23
More frequently than annually	23
<b># of respondents</b>	<b>13</b>

Who approves changes in your company's underwriting requirements? (Respondents were asked to check all that apply.)

**Table 88**

Underwriting Changes Approved	Percentage of Respondents
Multi-disciplined committee	67%
Corporate	63
Reinsurers	63
<b># of respondents</b>	<b>48</b>

Does your company monitor key underwriting metrics against expected?

**Table 89**

Monitor Against Expected	Percentage of Respondents
Yes	67%
No	33
<b># of respondents</b>	<b>51</b>

If yes, indicate which metrics are measured? (Respondents were asked to check all that apply.)

**Table 90**

<b>Underwriting Metrics Measured</b>	<b>Percentage of Respondents</b>
% standard, rated, declined	94%
% with APS (Attending Physician Statement)	70
% contestable claims	52
% with additional requirements ordered by underwriter	33
Other	12
<b># of respondents</b>	<b>33</b>

Other responses included: facultative placement percentage, review of contestable claims and percentage not taken by cause.

What is the frequency of such monitoring?

**Table 91**

<b>Frequency of Monitoring</b>	<b>Percentage of Respondents</b>
Monthly	50%
Quarterly	9
Annually	41
<b># of respondents</b>	<b>32</b>

Does your company have an internal audit program used to monitor its underwriters?

**Table 92**

<b>Internal Audit Program</b>	<b>Percentage of Respondents</b>
Yes	63%
No	37
<b># of respondents</b>	<b>52</b>

Does your company have a well-defined process for reviewing claims in the contestable period?

**Table 93**

<b>Well-Defined Process</b>	<b>Percentage of Respondents</b>
Yes	91%
No	9
<b># of respondents</b>	<b>54</b>

Is a senior person in your underwriting area involved in this claims review process?

**Table 94**

<b>Senior Person Involved</b>	<b>Percentage of Respondents</b>
Yes	88%
No	12
<b># of respondents</b>	<b>52</b>

Are your reinsurers allowed to review / comment on payment of contestable claims?

**Table 95**

<b>Reinsurers Review / Comment</b>	<b>Percentage of Respondents</b>
Yes, on all such claims	56%
Yes, but only on ones over a certain amount	18
Yes, but based on other criteria	4
No	22
<b># of respondents</b>	<b>51</b>

What is the other criteria?

For those companies that responded, their answers included:

- On facultative cases
- As requested by the reinsurer

If yes, who makes the final decision to approve?

**Table 96**

<b>Final Decision</b>	<b>Percentage of Respondents</b>
Ceding Company	89%
Reinsurer	11
<b># of respondents</b>	<b>36</b>

Which of the following periodic reports does your company have? (Respondents were asked to check all that apply.)

**Table 97**

<b>Reports</b>	<b>Percentage of Respondents</b>
Actual / Expected mortality	87%
Claims by amount	77
Number of contestable claims	66
Claims by underwriter or underwriting unit	11
<b># of respondents</b>	<b>53</b>

What is the frequency of these reports?

**Table 98**

<b>Frequency of Reports</b>	<b>Percentage of Respondents</b>
Monthly	44%
Quarterly	27
Annually	29
Other (weekly, as needed)	4
<b># of respondents</b>	<b>52</b>

## **Appendix 1**

### **Contributing Companies**

AAA Life Insurance	Minnesota Department of Commerce
Aetna	Modern Woodmen of America
Allstate Life	Motorists Life Insurance Company
American Express Financial Advisors, Inc	Munich American Reassurance Company
American Family Insurance Company	Mutual of Omaha
Assurant Employee Benefits	Mutual Savings Life Insurance Company
Aviva Life Insurance Company	North American Company for Life & Health
AXA-Equitable Life Insurance Company	Northwestern Mutual
Berkshire Life Insurance Company of America	Optimum Re Insurance Company
Boston Mutual Life Insurance Company	Pacific Life Insurance Company
Co-operators Life Insurance Company	Primerica Financial Services
CUNA Mutual Group	Principal Financial Group
Desjardins Financial Security	RBC Life Insurance Company
Educators Mutual Life	Reliance Standard Life
Equitable Life Insurance Company of Canada	Revios Reinsurance US Inc.
Farm Bureau Life	RGA Canada
Farmers and Traders Life Insurance Company	State Farm Life
Farmers New World Life Insurance Company	Sun Life Financial
Generali USA Life Reassurance Company	Swiss Re
Horace Mann Life Insurance Company	Thrivent Financial for Lutherans
ING Latin America	Union Central Life Insurance Company
ING Re	United Farm Family Life
Investors Heritage Life Insurance Company	Unitrin, Inc.
Jackson National Life Insurance Company	Unity Mutual Life Insurance Company
Jefferson Pilot Financial	VantisLife Insurance Company
Lincoln National Life Insurance Company	Wachovia Reinsurance
MassMutual	Western Southern Financial Group
Mennonite Mutual Aid Association	Western & Southern
Minnesota Life Insurance Company	Woodmen of the World