Working with Risk Managers

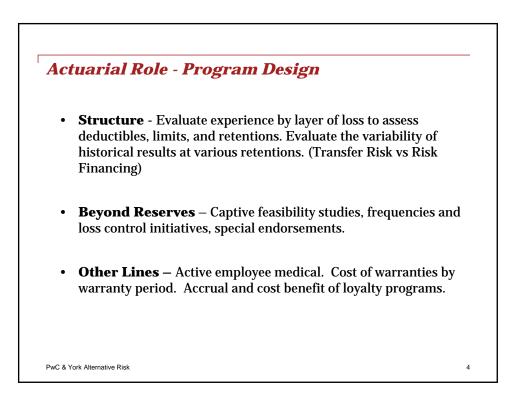
Alan Hines - PwC Managing Director

Chris Nash – York Risk Services *Vice President*

PwC & York Alternative Risk

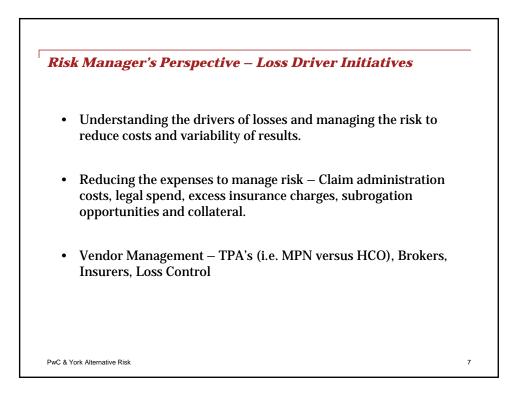
| Program Design | Cost benefit studies and retention analysis |
|--|--|
| Loss Driver Studies | Claim frequency studies, type of loss analysis and large loss studies |
| Cost Allocations | Allocating the cost of insurance to SBU's, operations or product lines |
| Collateral Analysis | Variability analysis of collateral requirements |
| TPA Assessments and Claim Settlement Strategy | Claim diagnostics, legal spend strategies, LPT's, predictive modeling to identify high cost claims |

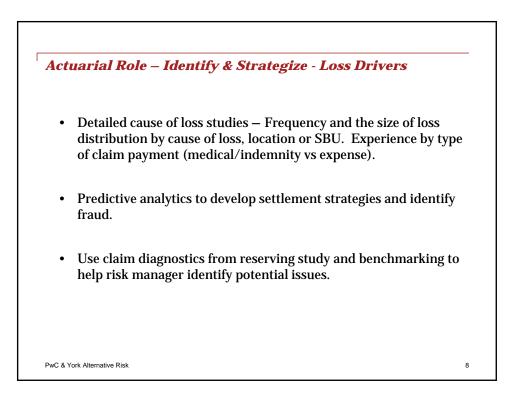


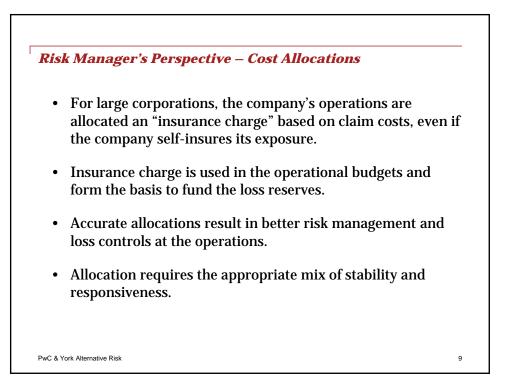


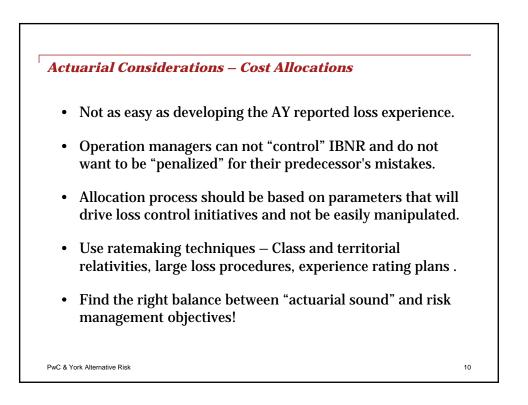
| Actuarial Ro | ole - Pr | ogram . | Design | 1 | | |
|----------------|----------|-------------------|------------------|---------|---------------|--|
| <u>Actuari</u> | al Anal | <u>ysis — C</u> | ost Be | nefit E | <u>xample</u> | |
| | Simulat | ed Aggregated Lo | sses - One Year | • | | |
| | | (\$Millions |) | | | |
| Limit | Mean | Median | 75% | 90% | 95% | |
| 100,000 | 10.882 | 10.818 | 13.449 | 14.863 | 15.739 | |
| 250,000 | 14.009 | 13.947 | 17.254 | 19.565 | 20.370 | |
| 500,000 | 16.127 | 15.932 | 20.213 | 22.790 | 24.178 | |
| 750,000 | 17.197 | 17.000 | 21.614 | 24.441 | 25.989 | |
| 1,000,000 | 17.890 | 17.547 | 22.582 | 25.290 | 27.660 | |
| Unlimited | 20.284 | 18.512 | 24.765 | 32.262 | 38.773 | |
| | Simulate | ed Aggregated Los | sses - Three Yea | ır | | |
| | | (\$Millions |) | | | |
| Limit | Mean | Median | 75% | 90% | 95% | |
| 100,000 | 10.879 | 10.920 | 11.807 | 12.885 | 13.628 | |
| 250,000 | 14.008 | 14.071 | 15.482 | 16.548 | 17.726 | |
| 500,000 | 16.130 | 16.086 | 18.071 | 19.280 | 19.873 | |
| 750,000 | 17.202 | 17.179 | 19.501 | 20.631 | 21.408 | |
| 1,000,000 | 17.897 | 17.849 | 20.314 | 21.495 | 22.633 | |
| Unlimited | 20.305 | 19.609 | 23.233 | 27.408 | 30.418 | |

| ctuaria. | l Role - | - Prog | ram D | esign | | |
|---------------|---------------------------|----------------------|------------------|-----------------|-----------------|--------------|
| | | U | | 0 | | |
| Actu | arial A | nalvsi | is — Co | st Ren | efit Exa | amnle |
| | | indi y 5 | | St Den | | <u>inpre</u> |
| | m - 1.0 | D | 0.1 | 10 | | D (1) |
| | Total Cost = Accrual + | Estimated Limited | Quoted Excess | 10-year | Expected | Expected |
| | | | | Average | Loss -Fitted | Loss per |
| Retention | Excess Prem. | Losses | Premiums | Excess Cost | Experience | NCCI ELF* |
| 100,000 | 21.658 | 10.882 | 10.776 | | 9.402 | 8.890 |
| 250,000 | 21.410 | 14.009 | 7.401 | 5.657 | 6.275 | 5.125 |
| 500,000 | 21.196 | 16.127 | 5.069 | | 4.157 | 3.079 |
| 750,000 | 21.089 | 17.197 | 3.892 | | 3.087 | 2.295 |
| 1,000,000 | 21.014 | 17.890 | 3.124 | | 2.394 | 1.936 |
| * Using weigh | ited average of | NCCI "Class | C" ELF. Sta | te expected los | s used as weigh | t. |
| | | | | | | |
| | Total Cost = | 75th Percent | ile Cost (1) | | 90th Percentil | e Cost (2) |
| | Accrual + | Single | 3-Year | | Single | 3-Year |
| Retention | Excess Prem. | Year | Average | | Year | Average |
| 500.000 | | 25.282 | 23.140 | | 27.859 | 24.349 |
| 750.000 | | 25.506 | 23.393 | | 28.333 | 24.523 |
| 1.000.000 | 21.000 | 25.706 | 23.438 | | 28.414 | 24.619 |
| 1,000,000 | 211011 | 2011-00 | 20.100 | | 201111 | 211010 |
| | | | | | | |
| (1) Excess p | remium plus 7 | 5th percentile | e of modeled l | | | |



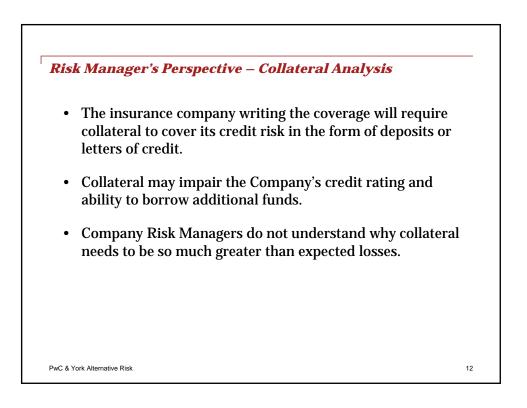






| | | A -Loss | Funding | Allocation | Using Re | elativities | |
|--|---|--|--|--|---|---|---|
| | (2a) | (3a) | (4a) | (5a) | (6a) | (7a) | (8a) |
| (1a) | 2014 | 2014 | 5-year | 3-year ex 2014 | 2009-2013 | | 2015 |
| | Premium | Premium | Adjusted AY | Adjusted AY | Adjusted AY | Selected | Premium |
| Division | (000) | Share | Reported Loss | Reported Loss | Paid Loss | Relativity | (000) |
| TOTAL | 18,300 | 100% | 100% | 100% | 100% | 100.0% | 19,200 |
| Div1 | 2,745 | 15% | 17% | 14% | 19% | 16.5% | 3,168 |
| Div2 | 3,660 | 20% | 21% | 23% | 19% | 20.5% | 3,936 |
| Div3 | 5,490 | 30% | 29% | 32% | 30% | 30.0% | 5,760 |
| | | | | 31% | 32% | 33.0% | 6.336 |
| Div4 (4a)-(6a) | 6,405 Based on avera | 0 | | | payroll, loss de | evelopment and | ., |
| | Based on avera | age of limited | l losses , adjuste | d for changes in | payroll, loss de | evelopment and | ., |
| (4a)-(6a) | Based on avera | age of limited B -Loss (3b) | I losses , adjuste Funding (4b) | d for changes in Using Free (5b) | payroll, loss de quency S (6b) | evelopment and everity (7b) | trend (8b) |
| | (2b) 2014 | age of limited B -Loss (3b) 2014 | I losses , adjuste Funding (4b) 3-Yr Ave | d for changes in Using Free (5b) 7-Year | payroll, loss de puency S (6b) Loss | evelopment and everity (7b) 2015 | (8b) 2015 |
| (4a)-(6a) (1b) | (2b) 2014 Premium | age of limited B -Loss (3b) 2014 Funding | I losses , adjuste Funding (4b) 3-Yr Ave Adjusted | d for changes in Using Free (5b) 7-Year Adjusted Ave. | payroll, loss de puency So (6b) Loss Control | evelopment and everity (7b) 2015 Premium | (8b) 2015 Funding |
| (4a)-(6a) (1b) Division | (2b) 2014 Premium (000) | age of limited B -Loss (3b) 2014 Funding Share | I losses , adjuste Funding (4b) 3-Yr Ave | d for changes in Using Free (5b) 7-Year | payroll, loss de puency S (6b) Loss | evelopment and everity (7b) 2015 Premium (000) | (8b) 2015 |
| (4a)-(6a) (1b) Division TOTAL | (2b) 2014 Premium (000) 18,300 | age of limited B -Loss (3b) 2014 Funding Share 100% | I losses , adjuste Funding (4b) 3-Yr Ave Adjusted Claim Count | d for changes in Using Free (5b) 7-Year Adjusted Ave. Severity | payroll, loss de quency S (6b) Loss Control Credit | evelopment and everity (7b) 2015 Premium (000) 19,003 | trend (8b) 2015 Funding Share |
| (4a)-(6a) (1b) Division TOTAL Div1 | (2b) 2014 Premium (000) 18,300 2,745 | age of limited B -Loss (3b) 2014 Funding Share 100% 15% | I losses , adjuste Funding (4b) 3-Yr Ave Adjusted Claim Count 360 | d for changes in Using Free (5b) 7-Year Adjusted Ave. Severity 8,650 | payroll, loss de quency S (6b) Loss Control Credit 3.0% | evelopment and everity (7b) 2015 Premium (000) 19,003 3,021 | trend (8b) 2015 Funding Share 16% |
| (4a)-(6a) (1b) Division TOTAL Div1 Div2 | (2b) 2014 Premium (000) 18,300 2,745 3,660 | age of limited B -Loss (3b) 2014 Funding Share 100% 15% 20% | I losses , adjuste Funding (4b) 3-Yr Ave Adjusted Claim Count 360 295 | d for changes in Using Free (5b) 7-Year Adjusted Ave. Severity 8,650 13,355 | payroll, loss de payroll, loss de (6b) Loss Control Credit 3.0% 5.0% | evelopment and everity (7b) 2015 Premium (000) 19,003 3,021 3,743 | trend (8b) 2015 Funding Share 16% 20% |
| (4a)-(6a) (1b) Division TOTAL Div1 | (2b) 2014 Premium (000) 18,300 2,745 | age of limited B -Loss (3b) 2014 Funding Share 100% 15% | I losses , adjuste Funding (4b) 3-Yr Ave Adjusted Claim Count 360 | d for changes in Using Free (5b) 7-Year Adjusted Ave. Severity 8,650 | payroll, loss de quency S (6b) Loss Control Credit 3.0% | evelopment and everity (7b) 2015 Premium (000) 19,003 3,021 | trend (8b) 2015 Funding Share 16% |

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