

**CASUALTY ACTUARIAL SOCIETY  
2013 ANNUAL MEETING**

**NON-TECHNICAL CALL PAPER PROGRAM  
(WORKERS COMPENSATION PAPERS)**

**Using Life  
Expectancy to  
Inform the  
Estimate of Tail  
Factors for  
Workers  
Compensation  
Liabilities**

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<p><b>USING LIFE EXPECTANCY TO INFORM THE ESTIMATE OF TAIL FACTORS FOR WORKERS COMPENSATION LIABILITIES</b></p>	<p><b>Background and Rationale</b></p>
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<ul style="list-style-type: none"><li>▪ <b>Summary of the problem and a practical solution</b></li><li>▪ <b>Aggregate loss development and curve fitting</b></li><li>▪ <b>Relevant data and other considerations</b></li></ul>	<p><b>BACKGROUND AND RATIONALE</b></p> <p>A practical reserving technique that can help more accurately reserve books of claims where claimant mortality is the main driver of the length of the tail.</p>
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<p><b>USING LIFE EXPECTANCY TO INFORM THE ESTIMATE OF TAIL FACTORS FOR WORKERS COMPENSATION LIABILITIES</b></p>	<p><b>Approach and Application</b></p>
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<ul style="list-style-type: none"><li>▪ <b>Mortality and “life expectancy percentiles”</b></li><li>▪ <b>Calculation of claimant life expectancy percentiles</b></li><li>▪ <b>Adjustment of tail factors for claimant life expectancy</b></li></ul>	<p><b>APPROACH AND APPLICATION</b></p> <p>If claimants in a given accident year survive to some percentile of life expectancy, how do we expect to see their related losses develop to that point in time?</p>
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<p><b>USING LIFE EXPECTANCY TO INFORM THE ESTIMATE OF TAIL FACTORS FOR WORKERS COMPENSATION LIABILITIES</b></p>	<p><b>Summary and Conclusions</b></p>
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<ul style="list-style-type: none"><li>▪ <b>Real-world considerations and lessons learned</b></li><li>▪ <b>Adjustment for reported versus paid development</b></li><li>▪ <b>Comparison to a ground-up, mortality-based model</b></li></ul>	<p><b>SUMMARY AND CONCLUSIONS</b></p> <p>A relatively simple extension of traditional loss development methods that can be scaled up or down in complexity based on the underlying data available.</p>
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**USING LIFE EXPECTANCY TO INFORM THE  
ESTIMATE OF TAIL FACTORS FOR  
WORKERS COMPENSATION LIABILITIES**

**Questions  
and  
Answers**