SYNOPSIS

BUILDING BETTER PPAC MODELS
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Key words: Payments per claim models, generalised linear models, active claims, chain ladder

Purpose of your paper: While generalised linear models (GLMs) have achieved some level of acceptance in actuarial work, many reserving problems are still performed using traditional approaches in spreadsheets. A large part of this is that the perceived extra value from using a GLM is low, combined with the uncertainty of how a GLM compares to a traditional approach. This paper argues that the GLM approach is preferable, containing virtually all of the benefits of a traditional model and also permitting powerful extensions and improvements. These improvements to models using GLMs are largely unreported in the academic literature. The discussion is supported with theoretical and simulation results.

The paper focuses primarily on the PPAC model (payments per active claim), a very common valuation technique for long-tailed liabilities. It is directly relevant to many of the schemes represented at the Seminar.