CAS' member comments

NCOIL Spring Meeting

Charlotte, NC

March 6, 2020

Before we begin

The CAS is not a policy-making body. We educate and credential and then continue educating.

Where appropriate, we avail ourselves of the opportunity to share experiences and perspectives of our members

Yay civics!

Activity of CAS members

- 3 rounds of comments shared
  - June 28, 2019
  - September 16, 2019
  - November 22, 2019
- Comments solicited from members of the CAS Ratemaking Research Committee
- Comments shared with CAS leadership, but NOT an official policy statement of the CAS

Focus on GLMs

Other models (random forests, deep learning) also used

Language and guidelines become specific to GLMs

Penalty for their greater maturity

Credibility

Credibility weighting GLM outputs is possible.

Coefficient estimates have estimable variance

GLMs support confidence intervals around estimates

Generalized linear mixed models (GLMMs) are largely the same as actuarial credibility models

Model assessment

Significant emphasis on p-values and use of a 5% threshold

The use and potential misuse of p-values have received significant attention from the American Statistical Association in recent years.

No mention of cross validation or regularization

Definitions

Insurance Data

- "data collected by the insurance company"
- What isn't "insurance data"?
- Census data?
- Credit data?

Predictive Power

- root-mean squared error
- mean absolute error

Test/Validation

- "Test" and "validation" often used interchangeably, but not necessarily synonyms
- Some constructions use an interim validation data set to select a model, whose qualities are then assessed against a test data set.