The Call

The Casualty Actuarial Society, in conjunction with the CAS Monograph Committee, is pleased to extend a Call for Monographs on the topic of “Credibility in P&C Actuarial Science”. The purpose of this call is to develop a source of literature with emphasis on the educational and professional needs of actuaries to foster better understanding of the theory and to generate publicly available models and methods.

“The word credibility was originally introduced into actuarial science as a measure of the credence that the actuary believes should be attached to a particular body of experience for rate making purposes”. Traditional credibility methods focused on deriving an updated or posterior estimate, based on the subject experience, “credibility”, and a “complement-of-credibility”. Methods associated with this approach include:

* Classical or Limited-Fluctuation Credibility
* Buhlmann-Straub
* Conjugate Priors (closed-end Bayesian approach)

Additionally, with recent advances in predictive modeling and analytics, more advanced notions of credibility have entered the space. Generalized Linear Models have become the tool-of-choice for actuarial ratemaking, but they generally assume “full-credibility”. Extensions of GLMs do allow for incorporation of “credibility-like” estimates but these approaches and their relationship to traditional credibility is not as well understood among practitioners. Examples of such methods includes:

* “Regularized Regression” (ridge, lasso, and elastic-net)
* Generalized Linear Mixed Models (GLMM)
* MCMC Model Estimation

As this call is intended to develop relevant literature on these topics into comprehensive monographs, it is encouraged for the prospective author to discuss the history of credibility methods, traditional approaches, and nontraditional techniques. However, prospective authors may choose to focus on the former traditional approaches, the latter “modeling” approaches, or both.

Monographs in this series can range from compendia of nontraditional pricing techniques in P&C insurance to detailed notes on one or more of the modern pricing methodologies. A list of sample topics can be found on the complete Call for Monographs.

If the Monographs include components of nontraditional techniques, it is encouraged that monographs either be accompanied by tools or code that allows the techniques discussed to be implemented or include links to Open Source software and code for this purpose.

Topics noted within this Call for Monographs are not only of interest to many practicing actuaries but may also be of interest to the CAS Syllabus Committee. The Monograph Editorial Board especially welcomes proposals that enrich material currently used to train P&C actuaries. This means that monographs that are highly readable and are structurally amenable to having questions set from them are preferred. Authors are encouraged, but not required, to include examples and exercises that help teach the concepts being explained.

Authors must submit their work in accordance with the Guidelines for Submission of Monographs. The monographs will be subject to peer review prior to final acceptance. Authors of monographs that are accepted within the timeline outlined below may be invited to present their work at a related CAS Seminar or Meeting.

SCOPE

The monograph series seeks to present a balanced perspective with respect to alternative approaches to solution of a given class of problems and to foster critical thinking. Although original research is encouraged, these monographs are primarily educational. Approaches providing balanced and critical evaluation of alternative methodologies are particularly welcome. Conditions of optimal application and the advantages/disadvantages of use should be explored, making it easier for a practitioner to choose suitable methods.

SUBMISSION GUIDELINES

Monographs should be prepared in accordance with the Research Paper Template, and the procedures in the Guide for Submission of Monographs. Authors will be required to execute a copyright agreement form, which formally grants the CAS permission to publish the paper. Authors are encouraged to submit working templates in spreadsheets or other open-source formats for models or methods discussed or developed in their papers. These spreadsheets and/or programs will be posted on the CAS Web Site along with the monographs.

TIMETABLE

Timely submission according to the timetable outlined below would ensure that a paper will be ready for presentation at an upcoming, related CAS seminar or meeting.

1. Deadline for Proposals: By July 18, 2022, authors should submit proposals, including the title, a short description of the topic(s) to be addressed, and the approach that will be taken. Each proposal should be accompanied by the resumes of the author(s), indicating how their background, education, and experience bear on their qualifications to undertake the project. A list of the authors’ publications, along with authors’ contact information, should be included with the proposal, submitted via email to the Casualty Actuarial Society, droyston@casact.org.

2. Acceptance of Proposals: By October 7, 2022, the Committee will make a decision on all proposals and will contact authors accordingly.

3. Monitoring Progress: A committee member will be assigned to work with each author to monitor the paper’s progress and to provide general guidance for completion of the paper. Interim drafts, based on a schedule proposed by the author, may be requested.

4. First Draft: By February 24, 2023, a first draft of the completed paper will be submitted to the assigned committee member for review and comments.

5. Results of Initial Review: By March 1, 2023, preliminary comments on the first draft will have been forwarded to the author.

6. Final Draft: By April 3, 2023, the completed paper and a 200-word abstract must be received. Each paper will be screened to assure its quality of exposition and relevance to the call. Submitted papers are subject to rigorous peer review and copyediting.

7. Results of Peer Review to Authors: By July 3, 2023, all authors will have been notified as to the results of this screening and peer review process.

8. Final Submission: By September 1, 2023, accepted monographs will be due to the CAS, to be published and be available on the CAS website. Some authors will be invited to present their papers at an upcoming CAS Seminar or Meeting.

QUESTIONS

Any questions on this Call may be addressed to Donna Royston at droyston@casact.org.