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Understanding the regulatory actuary

by Craig S. Kalman

Over time, we've increasingly seen actuaries stride out of the "back room" and into the limelight. Unfortunately, that backroom image still seems to hold for regulatory actuaries.

As a group, regulators are still in the background. They are often transparent to many in an insurance company, noticed only when an examination is underway. Those dealing with regulators regularly, such as pricing actuaries and compliance personnel, may only see the surface layer of their work.

Part of the solution is in the hands of regulatory actuaries. By increasing communications about what should be contained in filings, they can help insurers get approvals faster and reduce their own workload.

Current environment

A look through the *Directory of Actuarial Memberships* shows that in the United States, 31 state insurance departments employ 154 actuaries. They represent all insurance specialties: life, health, and property/casualty. Most of the states with actuaries have 1 to 4 actuaries, as shown in the table on this page.

Being a regulatory actuary is not much different from being an insurance company actuary. Both have time constraints that affect priorities. Actuaries in small companies are expected to be quite diverse in their abilities, while those in larger companies can become highly specialized. The same is true for regulatory actuaries.

Facts and myths

Here are some facts to challenge myths I've heard about regulatory actuaries:

- 1) Our salary is *not* based on the number of correspondences or questions asked about a filing.
- 2) A letter asking for more information is not a disapproval.
- 3) Just because something was acceptable in a previous filing does not mean it will be, or has to be, acceptable later.

I once heard a quote that applies: "The law should be stable but should not stand still." Filing reviews are a continual learning process for both the companies and the regulators.

The insurance industry — from both company and regulatory perspectives — is not static, it's dynamic. Our knowledge base comes from what each of us has done in the past, what our employers have done in the past, and what we've learned from others. Any actuary — insurance company or regulatory — will make improvements to his or her techniques over time.

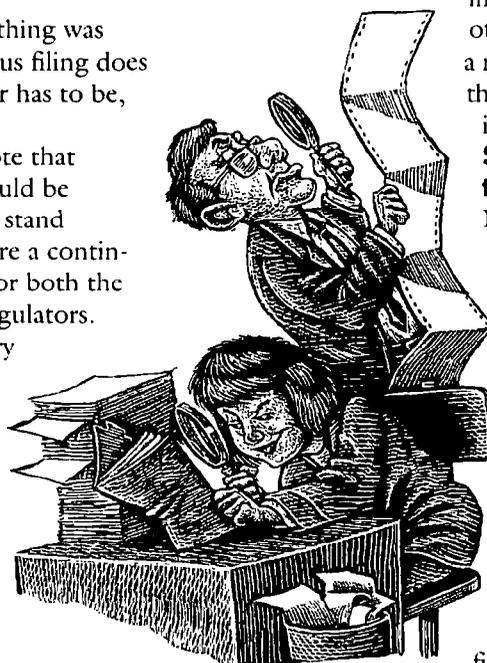
4) Most insurers say that it is aggravating to live with 50 sets of filing needs. On the flip side, regulators deal with different information formats from hundreds of companies. We have 130 insurers in Missouri who have Medicare Supplement business. When requesting a rate increase, each company provides similar information but in a different format.

Am I advocating total standardized reporting on everything? No. I think it removes creativity. In addition, each state considers some aspects more important than others. This may be a result of different things they've seen in filings over time.

Suggestions to companies

Following are some suggestions to companies to help expedite approval processes. These are based mostly on Medicare Supplement rate filings, but they apply to most rate filings, and even product filings.

- *Regulators have only what is on paper in front of them to review the filing.* To ensure that a filing is complete, have the filing peer reviewed before it is submitted. The reviewer should be someone who understands the context of the filing but was not involved in its development. He or she should be able to spot missing information, inconsistencies, or calculation errors before the filing is sent out.
- *Review any filing-related materials provided by regulatory authorities.* An example is the NAIC Medicare Supplement Compliance Manual. This provides a framework for companies and regulators to follow. If regulators asked for missing information more frequently, companies might avoid repeated incomplete filings.



Actuaries in State Insurance Departments

Number of Actuaries	0	1	2	3	4	7	8	11	12	13	36
Number of States	19	6	8	6	4	1	1	2	1	1	1

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Completed theses in SOA library

Thesis papers completed through the Ph.D. grant program are on file in the SOA's library. There is limited access to these thesis papers. For more information, contact Ellen Bull, SOA librarian, at 847/706-3575 or 3538. Abstracts of most of these papers are available in the Research Library of Actuaries Online.

Following is a list of the thesis papers and their library call letters:

"Identifying Life Insurer Financial Distress: Parametric and Nonparametric Classification Models, Insolvency Theories and Empirical Evidence," James Carson, University of Georgia, 1993. (HG 8850.C3)

"Dependent Contracts in Credibility Models and Parameter Estimation," H el ene Cosette, Ciaco, Louvain-la-Neuve, 1996. (HG8781.C82)

"Stochastic Models of Interest Rates in Actuarial Science," Siu-Wai Lai, University of Wisconsin, Madison, 1995. (QA 274.L1)

"Classical Risk Theory and Schmitter's Problems," Etienne Marceau, Ciaco, Louvain-la-Neuve, 1996. (HG8781.A251)

"Informed Trading and Option Pricing," Hal Pedersen, Washington University, 1995. (LD 5791.8 .P43)

"A Hierarchical Bayesian Model of the Rate of Non-Acceptable In-Patient Hospital Utilization," Marjorie Rosenberg, University of Michigan, 1994. (QA 279.5.R72)

"Continuous Time Models of the Reporting and Cost Process," Giuseppe Russo, University of California, Berkeley, 1995. (HG173 .R91)

"A Consideration of Certain Statistical Problems Involving Econometric Models With a Linear Structure from a Bayesian Perspective," David Scollnik, University of Toronto, 1992. QA 279.5 .S38

"Recurrence Equations and Insurance Risks Computing," Shaun Wang, University of Waterloo, 1993. (HG 8781 .W3)

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- *Avoid delays by removing the black boxes whenever possible.* Sam Gutterman's article, "The Actuarial Black Box" (*The Actuary*, January 1996), defines a black box as "actuarial analysis [that] has not been adequately explained." The article does a good job in explaining what should be done. Most actuaries will open these black boxes when asked.

A few, however, just turn the box around. Sometimes, one gets caught in what I call the "actuarial black hole." This is when the actuary who created the black box is so convinced it's right that he or she just cannot see the inconsistency in the filing.

- *The filing approval process takes time.* Remember queuing theory? This

applies here. Those familiar with the queuing process of medical claims know that a claim has to wait its turn. So does a filing.

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Correction

In the September issue, a story on page 20 announcing a presentation at the SOA annual meeting of the preliminary results of a research project on financial derivatives contained three misspelled names. Panelists discussing the project at the SOA's annual meeting this month will include Larry Gorski, a state insurance regulator; Thomas McAvity, who will offer a perspective from a life insurance investment department; and Lucien Burnett, an investment banker. We apologize for any inconvenience the errors may have caused.