



SOCIETY OF ACTUARIES

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How do YOU Forecast?

By Doug Norris

Since our inception, the Forecasting & Futurism section has been dedicated to promoting and educating the actuarial profession with respect to innovative and leading edge predictive techniques. In SOA meeting sessions, live webinars, and publications (including this newsletter), we have explored a variety of topics including predictive modeling, genetic algorithms, agent-based models, neural networks and artificial intelligence, Delphi techniques, and Bayesian networks.

Where do we go next? That's where you come in.

THE CONTEST

In the past, our annual Forecasting & Futurism contest has concentrated on a specific subset of predictions. For instance, last year's contest was dedicated to the study of genetic algorithms. This year, we are breaking the contest wide open—we are looking for you to explore and develop a technique (literally *any* technique) that advances the science of actuarial predictions and forecasting. You may choose to:

- Investigate an interesting application of a well-established actuarial technique, such as predictive modeling, risk adjustment, or reserve modeling,
- Explore and develop an approach that has been promoted by the section in the past, such as genetic algorithms, hidden Markov models, or Delphi techniques, or
- Advance something entirely new to the profession altogether.

As you can see, you could choose to take this contest in just about any direction you wish.

CONTEST SCORING

With that said, the direction taken has to be productive. Contest entries will be scored by multiple judges, using a 100-point scale with the following criteria:

- (25 points max) How useful is the technique to the actuarial profession? Is this something that actuaries can and will actually use? This is the most important single criterion.
- (20 points max) How understandable is the approach to an actuarial audience? A technique might be very useful, but if no one can follow it, then it's not going to be used.
- (20 points max) How easy would it be for another actuary to reproduce your work? Have you developed the technique enough that a qualified actuary could pick it up and run with it?
- (15 points max) How sophisticated is the technique (or extension) developed? What methods are built? How much territory did you cover?
- (10 points max) How flexible is your technique? Could it easily apply or extend to other applications? Will it appeal to a broad section of actuaries, or only a very few?
- (10 points max) How creative is your approach?

This contest is equal parts art and science, so feel free to let your artistic side run wild. What's the best way to ensure that another actuary can follow your work? The answer probably depends upon the technique being developed—a written report, an Excel workbook, or a programming code, any combination of the above, or something else altogether could work best. Consider your audience.

THE PRIZE

For the first three annual Forecasting & Futurism contests, we have awarded an Apple iPad to the contest winner. We have viewed this as a “must have” gadget for many modern actuaries.

This prize has two limitations—first, being a “must have” gadget means that (by definition) many actuaries already have it. If you walk around one of the SOA's meetings, you'll notice a lot of actuaries walking down the halls with their noses buried in their iPad (how do you tell an extroverted actuary? They look at your iPad when they're talking to you). Second, between now and October, something new and even cooler could surface as the next “must have” gadget.



Doug Norris

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Therefore, this year's contest winner will receive \$500 in credit to spend at the Apple store on any gadgetry of their choice (including an iPad, of course). The winner will also receive high-quality bragging rights and curriculum vitae material; just ask Jeff Heaton, the winner of last year's contest.

CONTEST SUBMISSION

To participate in the contest, you must be a member of the Forecasting & Futurism Section at the time of submission. Joining the section can be done on the SOA website. All entries must be submitted to Christy Cook at ccook@soa.org no later than Sept. 30, 2014. Christy will confirm receipt of your entry via e-mail, so please resubmit your entry if you do not receive an e-mail confirmation.

The winner will be announced in Orlando at the 2014 SOA Annual Meeting in October, at the section breakfast. Entrants do not need to be present in order to win, although being present would allow the winner to throw their arms up into the air vigorously.

THE RULES

All entrants must be current members of the SOA's Forecasting & Futurism Section at the time of entry submission. In the event that all entries are sufficiently wide of the target, the Section Council reserves the right to award no prize.

The Section reserves the right to substitute the cash equivalent of the contest prize if necessary, and the contest winner is responsible for any taxation issues appropriate to their region.

The Section and the Society of Actuaries may use submission information in publications or other SOA venues without further involvement of the entrant. For instance, we published Jeff Heaton's winning entry in the December 2013 edition of this newsletter.

Questions, concerns, or compliments about this year's contest may be sent to my e-mail address (doug.norris@milliman.com). If you have a potential submission idea that you'd like to talk through with me, I'd be happy to do that. I also like talking about healthcare reform, hockey, or high-altitude hiking. ▼