SOCIETY OF ACTUARIES

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Risky Business

By Tom Bakos

Tom Bakos is a consulting actuary with Tom Bakos Consulting, Inc. in Ridgway, Colo. (and a former SOA Board member). He can be reached at tbakos@BakosEnterprises.com.

Risk is exposure to a contingent event. Risk is usually thought of as potentially creating a negative result – death or taxes, for example. But risk, more generally, may be thought of as exposure to any type of contingent event – even winning the lottery. Although when exposure to risk may result in a gain, it is often called "chance".

A contingent event is an event uncertain as to its occurrence, timing or severity. "Severity", of course, characterizes the negative side of a quantity measurement. Abundance might be substituted for severity when the deviation from expected is on the plus side. Typically, severity or abundance is measured against an expected or most likely outcome. For example, with respect to risks most commonly addressed by actuaries, actual to expected ratios express real results in terms of expectations.

BUT, I THINK, WITH OUR PLETHORA OF ACTUARIAL ORGANIZATIONS IN THE UNITED STATES AND WORLDWIDE WE HAVE, PERHAPS, UNNECESSARILY SUBDIVIDED OUR PROFESSION INTO LESS EFFECTIVE PIECES.

Actuaries everywhere and of all types analyze, measure and price risk in terms of probabilities and financial consequences. Through the processes actuaries use, the ***financial consequences*** of risk may be managed and, because of that, the full impact of risk may be mitigated. And, to some extent, because some behaviors may be changed with knowledge of probabilities (smoking vs. not smoking, building or not building on a flood plain, sources of cash flow, etc.) exposure to risk and, therefore, the financial consequences of such exposure can be minimized.

The Casualty Actuarial Society (CAS) identifies actuaries as follows: "Actuaries evaluate the financial impact of current economic, legal and social trends on future events." The CAS limits the future events it covers to property, casualty and similar risk exposures.

The Society of Actuaries (SOA) says: "An actuary is a business professional who analyzes the financial consequences of risk." The SOA limits itself to life insurance, retirement systems, health benefit systems, and financial and investment management but reserves a future in "other emerging areas of practice."

The International Actuarial Association (IAA) identifies no subject matter limitations while asserting the actuarial profession "worldwide as a major player in the decision-making process within the financial services industry, in the area of social protection and in the management of risk, contributing to the well-being of society as a whole."

The Institute and Faculty of Actuaries in the UK and the Institute of Actuaries of Australia say similar things about what actuaries do – we evaluate risk and opportunity, we make financial sense of the future – albeit in principally business situations the way they see it.

ACTUARIES MANAGE RISK

All of our profession's organizations are consistent in seeing actuaries as involved in managing risk through analysis and pricing. But, I think, with our plethora of actuarial organizations in the United States and worldwide we have, perhaps, unnecessarily subdivided our profession into less effective pieces. Actuaries are uniformly trained in risk. The mathematical, statistical, economic and financial analyses we use may be tweaked for one kind of risk or another but they are applicable to all.

For example, focusing on the U.S. environment, an FSA and an FCAS are both fully qualified actuaries. Our jointly adhered to U.S. Code allows each of us to practice in any actuarial field if we are qualified to do so (Precept 2). We are, in fact, joined together in the American Academy of Actuaries and, surprisingly, once qualified as either an FSA or an FCAS may practice in the other's field, in any other area of actuarial science, or in any area of risk subject only to a requirement that we be qualified to do so – a largely self-determined status.

ENTERPRISE RISK MANAGEMENT

Think in terms of enterprise risk management (ERM), a field involving the collective management of the individual risks affecting an entity. We, that is, the worldwide profession, have established a new, worldwide credential (CERA) for that. CERA is indicative of successfully passing multiple examinations on enterprise risk management which are substantially common among the worldwide actuarial organizations. Essentially, though, ERM is just about risk, the interaction of multiple risks or the relevance of multiple risks to each other – a topic, in general, very well understood by actuaries. In fact, in the SOA, a CERA is an ASA with a specialization in, so-called enterprise risk: insurance risks; financial market risks; strategic risks; operational risks; and systemic risks.

In the SOA, an individual on his or her way to fellowship (FSA) must choose one of five specialty tracks, one of which is Finance/ERM. The distinctions we make between the various branches of our profession can get a little bit confusing unless one recognizes that it is all about risk.

REAL LIFE EXAMPLE

Here's an example of risk analysis, probably enterprise risk analysis, that even a 12-year-old actuary would get. While traveling, I was recently selected at random for a "pat down" search by the TSA. It was conducted after I had handled the steely eyed stare of the initial screener and and all my stuff had gone through (successfully) the electronic and secret ray screening processes. I was shoeless when the beep signaled my diversion to a special holding area for people like me. My first thought was, this is random – apparently the dime and two pennies in my pocket were not a contributing factor! Would we underwrite life insurance that way? I made it through.

Then, I got on the plane along with a couple of hundred others all of whom had brought at least one or more cell phones, iPods, computers or other electronic devices onboard – none of which was to be turned on we were warned, even in "airplane mode", during takeoff or landing because, well, I don't really know why – but it was definitely not good. None of this is really new and I've gone through it all before, but not when I was in an enterprise risk frame of mind. Why, I wonder, am I trusted to ***voluntarily*** keep all of my electronic junk off, which is apparently dangerous but am allowed to bring on the plane anyway? But, if I tried to skip the random TSA check, giving a thumbs-up "I'm OK" sign, trust me as you are about to do when I board the plane with my cell phone, tablet and notebook computer, I'd be arrested and put in prison. What kind of ERM is that? Really?

WE SHOULD ORGANIZE!

So, I'm thinking ERM work is the kind of work actuaries can easily do, in keeping with the IAA goal of actuaries being worldwide global players in social protection, among other things. We actuaries of whatever sort have the basic training we need to do that well – training in risk analysis, evaluation, pricing and management. If only we could get our act together and organize instead of each of our current individualized tracks focuses on the nooks and crannies of risk.

We should recognize our common heritage – risk and the risky business we are all in. Maybe in the future we will recognize that a common education system emphasizing risk can unite us. We will no longer demand that actuarial candidates choose a specialty before they take their first exam. And, as the world moves toward a global economy, actuaries will also not need to select a national economy in which to practice but can specialize in one or more depending upon where their career path takes them. ☆