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A mysterious profession

BY CHRISTINE HOFBECK



Christine Hofbeck, FSA, MAAA, is vice president & actuary at Prudential Group Insurance in Roseland, New Jersey.

christine.hofbeck@prudential.com

“**Y**ou’re like an accountant, right?”

As actuaries, we’ve all probably heard the above question at least once in our lives, and probably many times more. No matter how often this question is posed to me, it’s still decidedly bothersome that actuaries are so often confused with Certified Public Accountants (CPAs). Yes, we both can add and our professions start with the letters “AC,” but an actuary is definitely not an accountant. CPAs attest to the accuracy of disclosures of what happened in the past, while actuaries mitigate financial risk by calculating probabilities of what will likely happen in the future. Please don’t ask me for tax advice.

So why is the actuarial profession such a mystery?

One would think that *Forbes*’ reporting of “actuary” as the No. 1 job of 2015 might have given us a popularity boost. In fact, “actuary”

has been ranked as one of the top jobs consistently (ranked fourth or better in each of the last five years). Despite this seeming popularity, many people really *don’t* know what an actuary does.

“Tell me when I’m going to die.” No, that’s a doctor ... or a psychic.

“Actuaries work for insurance companies, right?” Getting warmer. But let’s not forget about the thousands of actuaries who work for consulting firms, the U.S. government (think Social Security Administration) or individual businesses.

“You’re like Ben Stiller in *Along Came Polly!*” Hmmm. Neurotic, regimented, awkward, socially backward introverts. “You’re Ethan Hawke in *Boyhood!*” Aimless and deadbeat. No, we most definitely are not.

We actuaries actually have a rich history of strong analytical skills, innovation and business expertise. In 1662, John Graunt created our first pooled risk mortality table based on census data he obtained on

the Black Plague. Thirty years later, Edmond Halley, a mathematician and geophysicist, demonstrated a method to calculate a life-annuity premium using a later version of this mortality table, along with the idea of compound interest. Halley’s work is often credited as strongly influencing the development of actuarial science. Both of these men used their mathematical acumen and outside-of-the-box thinking to develop groundbreaking and valuable concepts that completely changed the economic and financial landscape.

In 1762, we were officially named “actuaries” by the founder of Equitable Life, the first life insurance company to use mathematical calculations to derive premiums for multiyear policies. Throughout the next 200 years, innovative advancements in actuarial methodology such as commutation functions were developed to simplify exceedingly complex manual calculations. Additional life insurance companies were established, and by

the end of the 19th century, about 100 actuaries were practicing in the United States and Canada. In 1889, 38 charter members were deemed fellows in the first actuarial organization—the Actuarial Society of America. (Perhaps this is the origin of the “40 percent pass rate” rumor!)

We actuaries have developed extensive mathematical approaches to determine the probability of risk and mitigate the financial impact of certain events. Our skills enable us to design new insurance products, accurately calculate premiums and reserves, skillfully forecast asset growth and longevity risk, appropriately determine pension liabilities and required plan contributions, and solve many other financially uncertain business problems. In fact, with dedication and determination, our skills make many opportunities possible. We should all be consistently pushing the boundaries of actuarial science to improve and enhance not just our work, but ourselves.

We must endeavor to share our value, promote our work and celebrate our capabilities. If we want to ensure future growth of our profession, guarantee our seat at the table in the most valuable business decisions, and have our expertise requested and heard, we will *all* need to concentrate on thoughtfully and appropriately communicating who we are and what we do.

There is a clear opportunity for us today. Key buzzwords right now are “data scientist,” “big data” and “analytics.” Actuaries fit well into each of those buckets—but can we convince everyone else of that? The Society of Actuaries (SOA) is currently exploring the role of actuaries in predictive modeling; at one time this was tentatively labeled an “alternative profession.” I would challenge that, as a professional who builds predictive

modeling capabilities within insurance organizations, I am proud to call myself an actuary, and would not choose to be labeled as working in an alternative profession.

Then again, I have often been told, “You don’t seem like an actuary.” Really? A colleague of mine considers this comment equal parts compliment and insult. And what exactly does it even mean? I have been an actuary for over two decades. One would think that I am *exactly* like an actuary.

Recently, I was working a table at a local high school career fair when a student approached to ask me what an actuary does. I mistakenly thought he was interested in pursuing the profession. Instead he said, “My dad is an actuary, but when I ask him what he does, he tells me it’s too complicated to explain. Can you please tell me?”

Given our depth of skill and span of expertise, why do we have so much trouble articulating our value, work

and capabilities? Perhaps the onus to put the truth out there rests squarely on our own shoulders. There are 20 times as many accountants as actuaries; it is up to us to promote our value.

I encourage you to take some time to think about exactly what it is that you do. Write it down and refine your thoughts, if that is helpful. Think about how the description of your role and your value proposition would differ depending on your audience. Then, tell your business partners and professional contacts what you really do. Tell your children. Tell your neighbors. Tell your spouse! Yes, the wording will change depending on your audience, but hopefully your message will resonate.

And one day people will approach our most innovative, creative and successful mathematicians, statisticians, data scientists and financial business leaders and say, “*You’re like an actuary, right?*” ■



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