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on the lighter side

Actuaries and the Rule of 11

by Donald R. Sondergeld

Actuarial students are supposed to be familiar with the 52-card deck of playing cards. I wonder if this is too much to ask, as the percentage of bridge-playing actuaries is probably decreasing. For many years, one of the social events at the annual meeting of the Society of Actuaries was the duplicate bridge tournament, held on the first evening. The number of people attending this event decreased, and it became a thing of the past, with the last tournament held in 1986.

Actuaries have long been associated with bridge. Perhaps the most famous was Oswald Jacoby (1902-1984), a Society Fellow. He was considered to be the best all-around card player in the world. He was a bridge columnist, won 43 national bridge championships, and for many years was the leader in accumulated "master points," which are awarded by the American Contract Bridge League (ACBL).

William M. Anderson (1905-1969) was president of both the Canadian Institute of Actuaries and the SOA. He was a friend of Charles Goren, whose "point count" system replaced Eli Culbertson's "honor trick" system of evaluating each hand during the bidding process. Goren assigned points for high card "strength" (four points for an ace, three for a king, two for a queen, and one for a jack). Anderson used his actuarial training in probability and statistics to suggest to Goren that additional points be given for distributional values (i.e., "shortness" and "length" in a suit), which Goren then included in his new system.

Not only are bridge players indebted to Anderson, but the actuarial profession became a true profession under Anderson's guidance. Anderson advocated that the SOA develop guides to professional conduct, along with procedures for investigation and disposition of problems relating to professional conduct. As a result, the SOA adopted a code of ethics and professional conduct for the first time shortly after Anderson's 1955-56 presidency ended.

Bridge and actuarial exams

Although I was one of those college students who preferred playing bridge to studying, I only became a student of the game when I retired in 1991. It seems like only yesterday that I took my first actuarial exam. In fact, it was in 1955. At that time there were eight SOA exams, and they were offered just once a year, each May. The exams were numbered 1 through 8. Subsequently, the first exam was eliminated, and the fourth exam became two exams, numbered 4A and 4B so as to not change the numbers assigned to the other exams. This was apparently done to help those actuarial students who had trouble remembering numbers. The change caused people to suggest that actuaries do not count very well, as the eight actuarial exams were then numbered 2, 3, 4A, 4B, 5, 6, 7, and 8. How does this relate to the modern game of bridge?

I suspect the 52-card deck was invented in the Stone Age, possibly in the Chicago area. The 52 cards must have represented the 52 weeks of the year. The four suits probably were the four seasons. In the Middle Ages, the four seasons became suits and represented the four social classes (nobility was swords, now spades; clergy was cups, now hearts; merchants were coins, now diamonds; and peasants were staves, now clubs). The 13 cards in each suit might have represented the 13 lunar months, or perhaps the inventor had 13 fingers.

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The cards in each of the four suits were simply numbered 1 through 13, with 1 being the lowest and 13 being the highest. Presumably, Stone Age man thought there were 364 days in the year, as the sum of 1 through 13 in the four suits totals 364, representing the 364 days in his year. Actuaries may well have been involved in the evolutionary process shown below. Note that like the former numbering of the SOA exams, the lowest card is numbered 2.

	Stone Age	Age of Royalty	Modern Age
Highest card	13	King (13)	Ace (14)
	12	Queen (12)	King (13)
	11	Jack (11)	Queen (12)
	10	10	Jack (11)
	9	9	10
	8	8	9
	7	7	8
	6	6	7
	5	5	6
	4	4	5
	3	3	4
	2	2	3
Lowest card	1	1	2

The Rule of 10 was easy to remember as most people had 10 fingers.

The Rule of 11

In the Stone Age, as now, all 52 cards were dealt. The four players were designated wind, earth, water, and fire, and they played clockwise in that order. Wind and water were partners and earth and fire were partners. A new person was designated as wind with each new hand (or new deal), which consisted of 13 "tricks." (This was a forerunner to the bridge game now called "Chicago.") There was no "trump" suit. It was required that wind begin the play of a new deal, and it was the custom for wind to lead the "fourth highest" card from his longest suit.

Then Earth's cards were placed face up on the ground for all to see. (For some reason we now refer to these "down-to-earth" cards as the "dummy.") Fire would choose which of earth's cards to play. The object was to win the most number of tricks.

Water and fire would each use the "Rule of 10" to calculate the number of cards that were larger in the suit that was led. The Rule of 10 was to subtract the pip value (number) of the card led from 10 (e.g. if the 6 was led, then there would only be four higher cards outstanding in the other three hands, as 10 - 6 = 4. If water could see one higher card on the ground, and water had three of the four higher cards, then water knew that fire had none.) The Rule of 10 was easy to remember, as most people had 10 fingers.

Modern man now uses the Rule of 11 because the cards are, in effect, numbered 2 through 14. It is conceivable that an actuary was involved in this new numbering system. If the SOA ever requires 13 exams, the exams should be numbered 2 through ace in an attempt to recapture the bridge-playing actuary. The public could then refer to an actuary who has completed all of the exams as an "Ace."

Donald R. Sondergeld, 1991-92 SOA president, played in the SOA bridge tournaments. He expects to become an ACBL Life Master soon.

Own the problem (continued from page 13)

multifaceted project." Tulin said The Equitable started trading publicly in 1992, and "the whole process probably was completed sometime in 1993."

Trading places

In May 1996, Tulin traded his life as a consulting actuary for that of a corporate officer. He joined The Equitable's life subsidiary as senior executive vice president and chief financial officer. A year later, he was given the added role of chief financial officer and executive vice president of the parent company.

Why the change? As a consultant, "you are always on a plane. Very few people are willing to come to you, no matter how good you are," he laughed. The other reason was that consultants "can't execute or implement. I was growing more and more desperate to be able to make some decisions and actually implement them."

The actuaries he hires

In his 30-year career, Tulin has hired more than 100 actuaries. "What I look for is hard to find," he said.

"I am looking for problem solvers and business people who are also professional actuaries. In other words, they recognize that the actuarial skill is just another skill that they bring to the table. They also need to have strong communication skills, good common sense, and other business skills, and all of those skills need to be focused in problem solving."

Tulin believes you can't solve problems if you don't own the problem. "That's something else I look for in the actuaries I hire," he said. "Owning the problem means working it until it's solved, as opposed to simply working it until you can say, 'Well, I've done what I can do,' and what you've done was not deemed all that understandable in the first place."

Actuarial roles and education, and what "selling" really means

In Tulin's view, actuaries should have key roles everywhere in the financial services industry. "The same way that you can find lawyers and accountants in almost any role in almost any business, you ought to be able to find actuaries — particularly in the financial services industry — in almost any role.

"Within The Equitable, we have actuaries doing many different things, and we have for many years. Part of the way to develop better-balanced actuaries is to get them out of actuarial departments and into other departments."

"If you look around the world at the really successful actuaries, what distinguishes them from the rest of the pack? It might be technical skills, but if it is, nobody really appreciates that — which means the difference really is in the business and communication abilities. You could be Einstein, but if you can't communicate your analyses and connect them with your company's or your client's business needs, then your value is going to be quite limited. But if you're only half an Einstein — and that's probably the minimum given the profession's technical requirements — and you marry that with strong business and communication skills, then you'll be a very formidable professional."

That formidable, problem-solving professional won't have to "sell" in any traditional sense, Tulin said. "I think a lot of actuaries who talk about selling really mean communicating and solving problems. If you communicate well and know how to solve problems, you won't have to sell. Everybody wants someone who can solve their problems and who can bring to bear a host of different skills to solve those problems."

Jacqueline Bitowt's e-mail address is *jbitowt@soa.org*.