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Actuaries interact with the public

by Charles Habeck

"An audience of elementary school children is one of the few groups I have found that is not yet jaded against insurance," states Jerome E. Tuttle, senior vice president and actuary at Mercantile & General Reinsurance Company, Morristown, New Jersey, in his response to questions raised in an October 1993 *Actuary* article on actuaries and the public.

Tuttle was one of six actuaries to respond to the request for accounts of experiences in giving talks to the public. Each year, he visits his children's elementary school classes to give a talk about math that relates to his work. His favorite talk involves a hurricane simulation game that he has presented both at the first-grade level and at the New Jersey math teachers conference.

The game typically covers several "years" or hurricane seasons. Each player receives Monopoly® money and a Monopoly® house and is given various hurricane data to think about. "The main issue in the game," Tuttle said, "is whether the students should buy hurricane insurance."

Probability concept demonstrated

In a Math Awareness Week for grade school students last year, Mark Rowley, associate actuary at The Principal Financial Group, Des Moines, opened his presentation with gambling-type examples. Once the students grasped

the concept of probability, he progressed to the life and death case. A couple of students learned enough to be able to find the net premium, given a certain probability of death.

To reward their efforts, Rowley gave out "Ask An Actuary" buttons to the students. About a week later, one child was seen still wearing the pin on her jacket, and very proud of it.

Encouraging careers through example

Making use of her varied math background, Joan Ogden, health care consultant in Salt Lake City, builds her classroom presentations on the students' own experiences. She is a "founding mother" of the Utah Math/Science Network, whose purpose is to encourage young women to persevere in math and science. The network provides role models and career information to achieve this goal.

Ogden may speak to a class first about grading "on the curve" and then move to the concept of the "normal curve" and the need for a proper size sample. If time remains and the group is able, she describes other curves, such as the sine curve, and weaves into her talk examples from her earlier work in a pulsation dampener engineering firm and in the Apollo space program.

The presentation ends with a discussion of the need for good oral and written skills and the need to find and know how to use available data

resources. All this occurs in one-half hour, followed by questions. Ogden gives talks once a month during the school year. In addition, she is now co-authoring a book to help benefits managers assess their companies' health care programs, including how to use an actuary to advantage.

Making content fit audience

An important aspect of public presentations — tailoring remarks to the needs of the audience — is related by Paul J. Sulek, vice president and chief actuary

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at American Guardian Life Assurance, Blue Bell, Pennsylvania.

Sulek describes three talks that grew out of his work on the HIV Research Committee. The first consisted of a report to his local actuarial club on the work of the committee. Here he spoke from an outline to a select group. In contrast, his second talk on AIDS was presented to a group of mostly P&C producers in rural New Jersey. "Although they were insurance people," said Sulek, "their knowledge of my topic put them pretty close to the category of general public." The third situation, a talk to a church group, called for more changes to address AIDS as a social issue with which the congregation was concerned. In each case, Sulek spoke as an actuary from a demographic, statistical perspective; one topic, three different presentations.

High schoolers can be tough audience

William E. Neal, second vice president and associate actuary at Western and Southern Life Insurance Company, Cincinnati, Ohio, discovered things don't always go smoothly at a typical high school career day. Despite careful planning, actual results can be less than expected.

Neal was promised 40 minutes for his talk and told to expect 30 students. Instead, his session began late, and only seven or eight students showed up. Two of these left early. His formal presentation described the profession, how to prepare for it, and how actuaries compare to other professionals. He moved on to the case study.

Since Neal's pension plan service table began with 30 active lives, he had to create about 25 imaginary participants. Names were then drawn from a hat for withdrawals, deaths, and retirements. Contributions, investment income, and benefit units were expressed in terms of pieces of candy. The process began okay, but time ran out before the service table did.

Despite these results, Neal says he would volunteer again with a few changes in his approach—more emphasis on the positives, less on the exams.

J. Ross Adams, retired, of Astoria, Oregon, gives an impressive example of the indomitable spirit of the actuary in pursuing his mission. He told of his speech to the local Womens Political Caucus on unisex insurance rating.

Adams asked to appear on their program, and he used his allotted minutes to educate the group about underwriting principles and the implications if their disregard became a trend. For instance, there might ultimately be no premium distinctions by age. His talk got a one-line mention in the group's minutes.

On another issue of importance in Oregon (and elsewhere), Adams believes that actuarial expertise would be helpful in the debate on using property or other taxes to fund education. He doubts, however, that actuaries can help develop a mathematical approach to Congressional reapportionment until "antithetical criteria in Oregon law" are dealt with. He points out that reapportionment difficulty is a nationwide problem.

These responses should give our readers a fair sample of how actuaries are interacting with the public in local settings. The SOA staff is revising the "Speakers Guide" and will include some of the information in the responses. Additional contributions are welcome and should be sent to the Communications Department at the SOA.

Charles Habeck is a consultant at EM-BAR-EX International, Milwaukee, Wisconsin, and an assistant editor of *The Actuary*.



Several actuaries requested copies of the wine-cask problem and the whisky advertisement I offered in the October *Actuary*. One person pointed out that use of age and evaporation aspects of whisky are common marketing devices that seem to work. Taste, however, also counts for value, because an 18-year-old whisky may be far superior in taste to the 12-year-old version of the same brand.

No one pointed out how the volume of the "batch" could be calculated from the estimated loss of 1,000 bottles a day, as stated in the ad, nor whether the aging process creates a stationary population that can be managed by properly timing one's marketing efforts.

William Neal sent a formula to calculate the reserve amount needed to provide for an award of a martini for each "significant response." Based on the comments of six who responded — or on the lack of such comments — my estimate of \$32 was too high, and Neal's formula should include an abstention factor.

Conclusion: Actuaries who write letters to the editor seem to be guided by an inner light, and like Mr. Liddy, are impervious to coercion or enticement.

— Charles Habeck