

## OBITUARY

WILLIAM SYLVESTER JEWELL (1932-2003)

Thank you Bill.



We, the worldwide community of actuaries, want to send you this last message. On January 27, 2003 you have, at the age of 70, left us. We have to get used, not to hear the pitch of your warm voice in our future meetings nor to share the intellectual insights of research in lively discussions with you. But — much harder — we are missing you as a thoughtful friend who was so much dedicated to see the good in all human fellows.

Born in Detroit, Bill attended Cornell as a student and MIT as a graduate student. These were the great times of Mathematical Modelling at MIT. Information Theory was born, Operations Research took momentum outside the military area. It is remarkable that these innovations — though clearly of mathematical type in their form — grew out of Engineering. Shannon, Elias, Danzig, just to mention a few names, were the pioneers and they called themselves Electrical Engineers with pride. So did Bill, who could have called himself, of course and with full justification, an Applied Mathematician, a Probabilist, a Statistician or a Computer Scientist. All of us, who have worked with Bill, know how deep his mathematical reasoning was and what a wide field of interests motivated him to apply it.

Bill was Professor in the Department of Industrial Engineering and Operations Research at the University of California in Berkeley for nearly 40 years. His area of research was very wide, including classical Operations Research topics such as Convex and Stochastic Programming, Constraint Optimization but also Numerical Analysis, Queueing Theory and Bayesian Statistics. With his tremendous intellectual curiosity he applied all these disciplines to an almost unlimited range of practical problems.

Bill got interested in insurance through a consulting activity in Workmen's Compensation insurance. But his main interest, common to many of us, was Credibility Theory. It was also for me the opportunity to meet Bill, first by scientific correspondence and only sometimes later in person. The correspondence had already been exciting, the personal encounter has been one of the great moments in my life. Bill has immediately seized what we actuaries tried to achieve through Credibility Theory. But he saw also beyond what we were doing by leading us to multidimensional and hierarchical extensions of the basic model and to understand its connections with Kalman filtering. (By the way, also Kalman came from Electrical Engineering!).

Bill consequently has contributed to actuarial research in many areas beyond Credibility Theory. The most important ones are: Isotonic Optimization in Tariff Construction, Risk Exchanges, Distribution of Aggregate Claims in particular by using recursive methods (with Bjørn Sundt). We all should reread his two papers "Predicting IBNYR Events and Delays". Bill's approach really brings new insights into an area of utmost importance for practitioners.

Bill was a wonderful teacher. His love for people was the precondition of his teaching style, but his love for language and his deep understanding of ideas made him an enchanting communicator. One of his great addresses was the one he held at the International Congress in 1980, where he elaborated on the paradigms underlying our thinking in the field of insurance.

Bill, it is hard to miss you. But we all have comfort by the thought that in many actuarial courses, seminars and congresses your name will continue to be cited as a great contributor to our science. To those who knew you personally, you are of course much more.

HANS BÜHLMANN

1.

2.

3.

4.

5.

6.

7.

8.