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An Interview With John Beekman



John Beekman, Ph.D., ASA, MAAA

This interview was conducted on Thursday, Aug. 15, 2019, while I was attending the Actuarial Research Conference at Indiana University—Purdue University Indianapolis (IUPUI) in Indianapolis. I first met Professor John Beekman, Ph.D., ASA, MAAA, in 1984 when he served as the external examiner for my doctoral thesis while I was a student at the University of Waterloo, Canada. It was my first meeting with Professor Beekman since then, so it was indeed a great pleasure to meet with him for this interview. We were joined by his wife, Jane.

Q: Tell us about your background. How did you enter the actuarial profession?

A: I heard about actuarial science in high school. So I made up my mind in undergraduate college to try to become an actuary. I started college in 1949 and earned a bachelor's degree in 1953. I was in the Army from 1953 to 1955. Then I came back for my master's degree, which I achieved by 1957. I worked for

State Farm Life one summer, and then I worked for a consulting actuarial firm in Minneapolis. Following that I took a job with Minnesota Mutual Life Insurance Company in St. Paul, Minnesota. I spent two years with Minnesota Mutual, and then in 1961, I started a Ph.D. program in mathematics at the University of Minnesota in Minneapolis–St. Paul. I also worked for a consulting firm called George V. Stennis Consulting Actuaries. I am not sure if that company is still around. If they are, they've probably changed their name because a lot of the consulting companies have merged.

Q: Did you work in the insurance industry before entering academia? If so, what prompted you to move into academia?

A: As I mentioned earlier, I did work in the insurance industry before entering academia. I was an actuary at Minnesota Mutual. But when I was in the Army, I taught algebra in the evenings, and I decided I loved teaching. Because of that, I decided to get a master's degree in math, so I went to the University of Iowa. I also took math education as an elective while at the University of Iowa. Later I transferred to the University of Minnesota, where I earned a Ph.D. in mathematics. Because I so liked teaching while I was in Iowa City and Minneapolis, I decided to change careers and become an academic.

Q: What challenges did you encounter upon entering the actuarial profession?

A: The actuarial exams. The first one I passed was an English comprehension exam. Fortunately, we were given about one or two hours per day to study for actuarial exams. Then, with time, I passed the mathematics-related actuarial exams to become an associate. I did not take the exams that would have led me to become an FSA because by that time I had a regular job, and I didn't want to give up that job.

Teaching and doing research in actuarial science is a fulfilling career that combines well with raising a family.

Q: Who motivated you to go into academia and/or research?

A: At the University of Minnesota, I wrote my Ph.D. thesis on function space integrals, and I had a wonderful advisor, Robert Cameron. He had worked for the secretive Manhattan Project in the middle of World War II, which developed the atom bomb. He was very inspirational. Although he sort of knew about actuarial science, that of course was not the main thing he was doing.

Q: Who was an influential person in your professional life, and why?

A: There were several people. In my early career I can start with Gerald Toy, FSA, who hired me for summer work in his actuarial consulting firm. I did that for four summers. I can say the main person was Robert Hogg, who was a professor of statistics at the University of Iowa. I had him for one class in my junior year and a one-year class as a senior. After I came back from the Army, I had him for two years in a master's program. There was also my doctoral advisor at the University of Minnesota, Robert Cameron. Later on there was Cecil Nesbitt at the University of Michigan; he was very inspirational. In addition, there was Jim Hickman of the University of Wisconsin. With respect to Cecil Nesbitt, during a summer conference, he was telling us that George Andrews was working on a book about the Social Security program and needed help. Cecil asked if there was anybody in this conference who could help. I said, "Oh, yeah, I'll help." So I volunteered and that's how I got started with George. We co-authored this book about Social Security entitled *Actuarial Projections for the Old-Age, Survivors, and Disability Insurance Program of Social Security in the United States of America*.¹

Q: What is your personal philosophy with regard to teaching and/or research?

A: Teaching provides opportunities for working with young students. Research gives one the challenges of new ideas.

Q: Thinking back on your career, what are your biggest accomplishments? Any disappointments? Any memories or moments that stand out above the rest?

A: Probably establishing an actuarial science program at Ball State University. We graduated hundreds of people with bachelor's and master's degrees in actuarial science. We started the master's degree first, then the bachelor's degree.

Next would be writing those books. I wrote the first book, *Two Stochastic Processes*, by myself.² The second book, which we have already talked about, was on Social Security with George Andrews. A third book arose in a similar fashion. I was at a math conference in Madison, Wisconsin, and Cecil Nesbitt said that Nathan Keyfitz, who was working on a book on demography, needed help. Nathan was a professor at Harvard at that time. So I thought, "Oh, good grief, do I have any business working with him?" But it worked out pretty well, and so I worked with him on a textbook called *Demography Through Problems*.³ In addition, I published more than 50 research papers. My co-authors were Newton Bowers of Drake University, Nathan Keyfitz of Harvard University, and George Andrews of Oberlin College. I must add that in the last five years, I have co-authored five

papers with David Ober, a retired professor of physics, and that has been a great pleasure.

Another big accomplishment for Jane and I was with our two daughters, Karen and Ann. Karen was born in 1961, and she's now a professor at Oregon Health and Science University in Portland, Oregon. She is married and has two children, except they're not children anymore. Our second daughter, Ann, works in Cincinnati with young adults between 18 and 22 years of age who are disabled in some way. For example, some may have Asperger's syndrome. They enter Ann's program in order to get a high school diploma so they can be employed. Ann works with them for a year, helping them to put together their resumes, prepare for interviews, and find employment. Another thing that Jane and I do is volunteer to help with our local Christian Food Pantry to provide food for the needy.

I do not recall any disappointments.

Q: What might someone be surprised to know about you?

A: Well, Jane and I are both in the church choir at a Lutheran church in Muncie, Indiana. We sing on Sundays nine months a year. We don't sing in the summer because I think the director wants a vacation. I'm sure it'll be very big surprise for the readers to know that we are not solo material. I also like to play golf with another person, Ramon Avalon, and we walk nine holes once a week. Jane and I also like to go on "Road Scholars" trips. We've been on 18 of them and plan to go on the 19th one soon. It will be held in Philadelphia. Also, I have been asked to give speeches on actuarial science to students in Muncie. I don't know how many students I got from those speeches, but their math teacher decided to join the actuarial science program at Ball State University. I recruited the teacher, but I didn't do that intentionally.





Q: How do you see the future of actuarial science in your country?

A: Well, I think it's very strong in the United States. I think actuarial science is very, very useful to millions of people who need solid pensions and annuities, solid health insurance and solid life insurance, and they need actuaries to make those things happen on a solid mathematical basis.

Q: What would you advise someone considering entering the actuarial profession?

A: Well, I guess I would say, number one, do you like mathematics? You have to like it, and you have to be willing to study very hard. If that's true for you, then a good career using mathematics is actuarial science. You have options: you can work in a consulting manner, you can work for a company, or you can be an academic. If I could rewind my life, I would do this all over again and become an actuarial science professor.

Q: As you know, actuarial education has become mainstream and is taught in many universities worldwide. As you reflect on your career, are there any closing comments (or advice) that you may want to pass on to current (especially younger) actuarial science faculty at large?

A: Teaching and doing research in actuarial science is a fulfilling career that combines well with raising a family. If you're teaching mathematics anyway, and you want to serve people using your mathematical training, you might at least consider teaching actuarial science because it's a very useful profession. ■

ENDNOTES

- 1 George H. Andrews and John A. Beekman, *Actuarial Projections for the Old-Age, Survivors, and Disability Insurance Program of Social Security in the United States of America* (Schaumburg, IL: Actuarial Education and Research Fund, 1987).
- 2 John A. Beekman, *Two Stochastic Processes* (New York: Halsted Press, 1974).
- 3 Nathan Keyfitz and John A. Beekman, *Demography Through Problems* (New York: Springer, 1984).