



SOCIETY OF ACTUARIES

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Entrepreneurial Actuaries in Action—A Global Perspective of the Health Insurance Market

By Michael L. Frank

Genesis of the Journey

While serving as the president of the Actuarial Society of Greater New York, a student at Bard College contacted me requesting an information session at her school on the actuarial profession. This request expanded to visits to five college campuses including Bard, Columbia, St. John's, SUNY-Albany and Vassar.

Columbia University, with one of the largest actuarial programs in the group, offered my business partner at Aquarius Capital, Don Rusconi, and me the opportunity to teach a course as adjunct professors and develop a course that would give students a perspective of what it would be like to work as a health actuary or a health insurance professional (chief financial officer, insurance broker, venture capitalist), as well as provide experiences applicable to both their resumes and future careers.

Course "Blueprint"

In January 2012, we developed a course called "A Global Perspective of the Health Insurance Market." The objective of the course was to provide an overview of the health care insurance industry, including different products available, various delivery systems (U.S. vs. international), health care reform, reinsurance and capital markets. We expanded the course to position students for improving their long-term chances to attain C-suite roles, covering material such as how publicly traded HMOs manage business, how rating agencies evaluate companies, the role of insurance/reinsurance brokers, consulting on international health care systems, and politics and its tie to local health insurance. Health care reform was addressed, but was not limited to the United States—we covered reform in 12 other countries. Actuarial standards of practice (ASOPs), traditional health actuarial projects and professionalism issues were incorporated into the course.

Material was developed as the classes progressed, as we observed what students could absorb over a short period of time (2.5 hours per week for 14 weeks). Rather than use a traditional textbook, the course included a 700-plus-slide presentation and over 200 articles from industry. The material focused on current and emerging health industry issues, with



the majority of the articles less than a few years old. The course objective was for students to hit the ground running on their first job if they chose a health care or insurance profession (the course covered other actuarial disciplines, although the primary focus was on health care). Students also benefited by expanding their resumes through research and experience, which is critical in a difficult job market.

Students Contributed to the Course

Columbia provided a unique opportunity, with the class having 39 international students from a variety of countries and backgrounds. Many students contributed significantly to the course, including providing questions that were the focal points for future lesson plans and presenting their research projects to the class as well as to the insurance industry. For example, students coordinated a poll survey on health care reform, which was used for teaching the course and served as a resource document for several insurance industry task forces in health care. See the link <http://ce.columbia.edu/Actuarial-Science/Student-Work> for details.



Michael L. Frank, ASA, FCA, MAAA, is president & actuary, Aquarius Capital, and adjunct professor at Columbia University. He can be reached at Michael.Frank@AquariusCapital.com.

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Students researched the health care system of a specific country and presented a 20- to 30-minute lecture to the students and professors on their research.

Many students published multiple pieces of research in the industry. Students worked in teams, contributing and presenting research material, often taking them out of their comfort zones with experiences in public speaking, project management and team building. As part of the course, students were given readings to critique and asked to provide opinions of items they liked and disliked. This effort ultimately became the framework for future research projects and class assignments. Students were also given traditional actuarial projects in pricing, reserving and underwriting as part of the course.

International Health Care Systems

For the final exam, students researched the health care system of a specific country, wrote a paper (many were later published), and presented a 20- to 30-minute lecture to the students and professors on their research.

Students were assigned to 11 teams with three to four students per team, with each team representing a different country. The 11 countries selected by students were Australia, Brazil, Canada, France, Germany, India, Japan, Singapore, South Korea, Sweden and England. As part of the project, students reached out to other students outside their own team to serve as peer review of their final paper/research. Based on their own critiquing of other articles that they reviewed (for example, articles on the China system), the students developed the guidelines and framework on what they wanted their presentations to cover. Students used videos, humor, graphics, foreign language and social media as part of their presentation to teach the class.

Students contacted actuaries in their assigned country to obtain insights and research (for example, the Brazil team contacted Ronald Poon Affat, a practicing actuary in Brazil). We highly encouraged this activity to both expand students' knowledge in a local market and provide valuable networking opportunities, an important tool for future actuaries.

Overall, the international research project was a success. Although research done by students has its limitations (they are not practitioners with prior

experience), their enthusiasm and interest to contribute to the profession at the beginning of their actuarial careers was very positive, and students learned a lot about 11 health care systems in addition to the United States and China. To access the students' work, visit <http://ce.columbia.edu/Actuarial-Science/Student-Work>.

Conclusion

By the end of the course, students learned the day-to-day role of a health care actuary (technical aspects of the job) and a health care executive (for example, the CFO). The overall experience was very favorable for both the students and the instructors. Several students volunteered to be a teacher's assistant for the next course, while many other students either obtained internships or full-time employment opportunities through the networking that took place through the course.

Students learned first-hand how local health insurance is, which is an important lesson usually only learned through many of years of experience. They also studied and observed how government and health care systems interact. Some students observed that although other countries are ranked higher than the U.S. system in controlling costs, they also had longer waiting periods and less access to care than the U.S. system.

The Future

This course will continue in 2013, expanding to study additional countries chosen by future students, and will hopefully include more actuarial practitioners as student mentors. The course instructors will also be conducting a similar course internationally, including in the fall of 2012 in the Dominican Republic, and China in 2013.

Following this course, Columbia University piloted an internship program in the summer of 2012, with practicing actuaries creating projects for students to gain relevant experience and research. The overall impact was very positive, based on student evaluations and practitioner feedback, and the result was more successful student transitions into the workforce.

Acknowledgments

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Most importantly, a special thanks to the Columbia University graduate students who went on this unchartered course called a “Global Perspective of the Health Insurance Market,” since they made the program go. Visit <http://ce.columbia.edu/Actuarial-Science/Student-Work> for a full list of student names. Lastly, thank you to Weiying Liu, a college student at Bard College, for her LinkedIn email that set this ride in motion. ■

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