## Becoming an (employed) actuary

By: Justin Frerich

There are many misnomers about a career that is so often polled as one of the best jobs in America, but one thing is certain: the actuarial career is time-tested and will always play a vital role in future financial planning and risk assessment. Have you ever told someone your future plans for becoming an actuary? The most popular responses range from becoming Ben Stiller in Along Came Polly to becoming the Peyton Manning of the financial world. Either people have no clue what actuaries do or they realize the worth in having a team player that is focused, forward-thinking, and perceptive.

What do actuaries do? In theory, all actuaries manage risk. From a business perspective, they evaluate the likelihood of future events like retirement, a car crash, or a cancer diagnosis. Actuaries price insurance premiums for things like health, life, auto, and even kidnapping insurance; they set reserve amounts for contingency funds like Social Security and Medicare/Medicaid, which together make up nearly half of the U.S. federal budget.

Actuarial competencies have evolved over time and vary by industry, but all modern actuaries share a very strong analytic and technical expertise. Beginning actuaries will have many career choices to make that will largely impact work responsibilities, job outlook, pay, and work environment. The first of these choices that many upperclassmen are faced with is industry specialization. Most traditional actuarial roles fall into health, life, pension, or property & casualty organizations. While previous professional experience, knowledge, and personal interests play a large part in choosing a career path, job market demand will play a significant role in deciding which line of business graduate actuarial

candidates end up in. Candidates traditionally will also have to choose, although not permanently, between working in the insurance and consulting industry. These industries span a wide range of the professional spectrum: from jobs consisting of number crunching in an office cubicle to traveling the country with a high dollar sales goal. In general, the qualities of the different industry roles differ greatly and require vastly different skill sets. Insurance actuaries tend to have a more academic and specialized career path while consulting actuaries tend to require broad experience and soft skills to become successful. Actuarial analysts need to have many essential qualities to become employed: strong personality, sound technical skills, experience in collaboration, ample communication skills and creativity, but one key to breaking into the industry is computer proficiency. Analysts will be responsible for a large amount of data manipulation using spreadsheet software for the first part of their career. This is a huge business need as analysts need to be confident and efficient in their analysis for associates to interpret data. Candidates that possess a proficiency in software such as Microsoft Excel are crucial to meeting potential employer's needs. Candidates that have programming experience, such as Visual Basic, increase their ability to mainstream data analysis and become a more viable employee. That being said, there are certainly many other ways for candidates to set themselves apart, such as being charismatic, or having excellent presentation skills.

Employers hire entry-level actuarial candidates for one reason: to eventually become credentialed actuaries and be able to sign actuarial work. Employers have a strong

economic incentive to hire and train actuarial students who will eventually progress to becoming actuarial associates and fellows. Associates, who are endorsed either through the Society of Actuaries or the Casualty Actuarial Society, must pass a series of five preliminary professional exams. As most know, these exams are demanding and require a significant amount of study time; pass rates by exam float between forty and fifty percent. Becoming a fellow of a designated actuarial society requires passing additional exams after becoming an associate. Because of the difficulty of this process, organizations establish actuarial study programs that offer student-employees devoted work time to study for society exams. Many companies will also offer a bonus incentive and salary raise for each step along students' exam progression. From a financial perspective, employers prefer actuarial candidates with more exams completed. The more candidates can demonstrate an ability to pass exams efficiently, the greater confidence the employer has in the candidate's ability to maintain job performance while still progressing toward an associate certification. Candidates become more competitive by passing exams while in college. While some universities offer formal actuarial science majors with dedicated study programs, the majority of U.S. universities offer the curriculum presented in the first two preliminary exams, calculus based probability and interest theory. For an additional book fee, students can purchase an actuarial study manual while taking university courses to learn the applied actuarial techniques for each of the two preliminary exams. Students can take society exams after completing key courses while exam material is still fresh on students' minds. Even though universities with well-known actuarial science programs have more of a reputation in the actuarial business community, employers often respect a student's ability to independently

pass exams during college without a formal actuarial program.

Becoming an actuary has been a popular career choice for those pursuing a degree in math for many reasons. The analytical skills demanded by the profession draw those skilled in math; the high entry-level and senior salaries attract the most skilled candidates; the nature of the job retains those that value pay for performance. The recent past has shown that although the actuarial career is speculated as having a tremendous job outlook, the career is evolving and is now very prone to economic recession. Like many other careers during this time, employers have the luxury of cherry picking candidates that align closely with company culture and strategy. Candidates will need an excellent resume, strong interviewing skills, good networking capabilities, and perseverance to land what most respect as one of the best jobs in the U.S.  $\Box$ 

Justin French

B.S. TTU in May 2010, Mathematics with Economics minor



Hay Group is a global management consulting firm that works with leaders to transform strategy into reality.