Actuarial Science Newsletter May 2015

Risky BUSINESS



FROM THE CLUTTERED DESK OF THE LIAISON & EDITOR...

It's that time of the year again where students are frantically studying for finals, and we here at *Risky Business* do our part by providing some educational procrastination material.

We've stepped far outside of our comfort zone this time in two ways: this issue covers twice as many countries as usual (yes, that just means two countries, but one must start somewhere), and David Boon, who has won awards from The Texas Intercollegiate Press Association in Headline Writing, Column Writing, and Radio Newswriting, joined our team this semester and has done his best to teach the rest of us how to actually write.

This semester's issue discusses: a survey of the skills utilized by working actuaries, UT's exciting new case studies class M 375T, a new social development in the Actuarial

Science Club, changes to the SOA MFE and FM exams, actuarial opportunities in Mexico, the new and mysterious CAS Exam S, the work of the CAS Automated Vehicle Task Force, and other pertinent odds. Once again, we have included recognition for the UT actuarial students who have passed exams since our last publication as well as for this semester's scholarship recipients.

With every issue, I have been immensely proud of the writers, and that continues to be the case. More revisions and rewrites happened in this issue than any other I have worked on. Everyone was amazingly invested in *Risky Business*, and they all deserve ample credit for that.

Allison, David, Elin, Jenny, Rolando, Sarah and Wes, thank you all so much for all the work done on top of the internship hunting and test prep that is part of our everyday lives.

I also want to thank the wonderful Jesus Flores, Catherine Kenagy, Peter Ott and Scott Merkord for taking the time to share advice with us. Students can check out page 6 to find and utilize those tips.

Last but not least, I must extend special recognition to Kylie Chesser. Long after everyone else has submitted, revised, and re-revised their articles, Kylie compiles everything into a newsletter worthy of framing. So for her infinite patience and perfectionist tendencies, Kylie gets her own paragraph.

I have one more year of this wonderful ride as *Risky Business*Liaison and at least one more semester as Editor. The journey thus far has been equal parts stressful and amazingly rewarding, and I look forward to whatever is in our future.

-Jason Rossiter

THE ACTUARY ABROAD: MEXICO

Prospective actuaries should open their minds to opportunities south of our border. In the U.S and Mexico, the size of the insurance industry relative to their respective economies is considerable.

U.S. insurance markets contribute 2.5% to its GDP while Mexico's constitute 1.8%. Yet in other respects the markets stand in stark contrast. According to the 2012 National Poll on Financial Inclusion, the Mexican adult population that has any form of insurance is at 22% (15.4 million). Of those, only a third have some form of car insurance. Furthermore, the Mexican population is beginning to experience the phenomenon that is inextricably linked with a developing economy: an increase in life expectancy coupled with a fall in the fertility rate. The result is a rapidly aging population creating job growth in the actuarial field.

In an aim to increase the ranks of the insured, the new Federal Obligatory Insurance Law of Vehicular Civil Responsibility came into force in latter half of 2014. It will require liability insurance from all users of

Public Domain Image

federal roads and bridges, with all cars mandated to have insurance by 2019. The Mexican congress also signed a universal pension plan where all resident citizens or foreigners living in Mexico for more than 25 years would be required to have a non-contributory social pension of US \$44 a month.

Mexico is already a dynamic, developing market for insurance companies as well as a challenge for the freshly-minted actuarial graduates they hire, says Fernando J. Troncoso, President of Troncoso Consulting Group Inc.

"I started my actuarial career in the 1970s at the dawn of the actuarial career in Mexico. I was the first generation of the actuarial science program at Anáhuac University," he explains.

Now, with the observed demographic changes, social security reform and the national attention to pensions, there is a "terrible need for trained actuaries" according to Troncoso.

"New actuaries will have an attractive market to apply themselves [to]—and not only pensions, but health insurance... Property [& Casualty], Life and so on," he says.

He says there is not much difference in actuarial needs between the U.S. and Mexico.

"You still need professionals



with business acumen who are able to explain their work in layman's terms to their clients ... and who conform themselves to the responsibility their title carries and its principled application that society's trust in the career demands," Troncoso explains.

With some international insurance companies having subsidiaries throughout the world and sending their actuaries abroad, there is an opportunity to make the prospect of a potential employee with international experience more auspicious.

Whether in Mexico or elsewhere, there are fascinating opportunities to grow as an actuary and develop into a world traveler. If you desire to work overseas, do your research on foreign insurance markets and position yourself to make the move.

-Rolando Garcia

ACTUARIAL SCIENCE DEGREE MODIFICATIONS

Proposed Changes Include Fewer Hours, Life Contingencies

This spring semester, the undergraduate studies committee of the mathematics department has been completing undergraduate degree changes, including changes to our B.S. in Mathematics: Option I: Actuarial Science.

Since Dr. Mark Maxwell arrived at UT in 2009, the actuarial science program has continued to grow and its degree requirements have continually been modified. There were 87 Actuarial graduates in the 2014-15 session, compared to 55 graduates in 2010-11. M 339D was created by Dr. Cudina and added to our course offerings. Professors Hamrick, Harper, Mann, and Walch have been added to our actuarial teaching staff, and Joel Nibert will begin teaching ACF 329 this fall.

These new proposed degree changes are for the 2016-2018 catalog, meaning students enrolling for fall 2016 will be the first required to complete the modified degree plan.

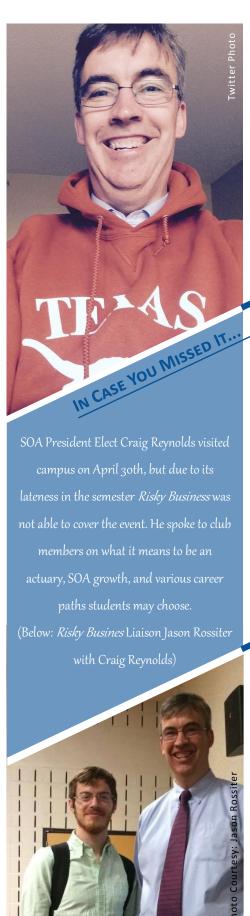
Many people have been involved in the deliberations, including the entire actuarial faculty. Dr. Jane Arledge presided over a subcommittee of the undergraduate studies committee which helped formulate the basis for all of the new math department degrees at UT. The Math, Physics, and Astronomy (MPA) academic advisors were consulted. The actuarial program advisory board has also given its expectations for an actuarial science major. Maxwell, the Actuarial Program Director, shared with *Risky Business* some details on the modifications.

One of the more noticeable proposed changes is the degree name from 'B.S. in Mathematics: Option I: Actuarial Science' to 'B.S. in Actuarial Science'. Another significant modification is the decrease in the minimum credit hours needed to fulfill the degree requirements from 126 to 120 hours.

The degree will require students to complete 11 upper division courses, including two from M 339W, M 339V, and M 349P. All actuarial majors will take at least one semester of life contingencies since actuarial employers and donors have expressed that an actuarial science degree should not be earned without passing such a course. Discrete Mathematics, M325K, will fulfill the introduction to proof requirement. ACF 329 will be renumbered as M 329F.

Students enrolled prior to fall 2016 can earn the B.S. in Mathematics: Option 1: Actuarial Science degree according to current rules, but Maxwell recommends that every student who wishes to work as an actuary satisfy the modified "Actuarial" coursework.

-Sarah Fife



FM AND MFE CHANGES APPROVED BY SOA

Will Move Derivatives, Reduce Material Range

Keep your eye on FM and MFE. The SOA has approved changes to the Financial Mathematics (FM) and the Models of Financial Economics (MFE) exams, following a proposal submitted last fall to alleviate issues nationwide.

The FM exam has presented candidates with a few problems, not the least of which being that one usually can't take just a single course to prepare. FM currently calls for either two separate courses (like UT's Interest Theory, ACF 329; and Intro to Financial Mathematics, M 339D) or one very rigorous all-encompassing course, which UT doesn't offer.

Professor Alisa Walch, who teaches ACF 329 as well as M 339I, M 339U and a new case studies course, M 375T (page 7), knows firsthand that the breadth of current FM material presents a challenge.

"The way that we have it now, I have a hard time getting through just the interest theory material in one semester," said Walch. "So trying to put interest theory and financial derivatives in one class would be really challenging."

The changes chosen to fix these issues include moving all derivatives markets material from the FM syllabus over to MFE, as well as dropping topics from MFE to bring it to a more mechanical level with less depth of understanding than has been expected in earlier years.

"They test at a deep level of understanding, but the syllabus material covers it at a more shallow level,"



said Walch. "Out of the preliminary exams, MFE was the exam that I felt was one of the most theoretical and challenging to understand."

The SOA Curriculum Committees' proposal explains that some MFE topics may be too advanced. Simplifying MFE calls for some syllabus trimming, including the removal of continuous interest rate models, diffusion processes, and Ito's Lemma. Commodity swaps will also be removed from FM and not covered on MFE.

"My one concern with [dropping topics like Ito's Lemma] is that, if you don't see it on MFE, where will it versities to cover it with just one go?" said Walch. "And maybe it's not necessary for an actuary to have that this could mean combining M 339D knowledge. But I think that there will be ramifications or adjustments that would need to be made to upper level exams."

In addition to influencing later exams, topic removal could also hinder understanding of what does remain on the syllabus.

"Generally speaking, the choice of the material to be dropped from the MFE exam is, in my opinion, unfortunate," said Professor Milica Cudina, who teaches M 339D and M339W—FM and MFE preparatory courses—as well as ACF 329 and M 362K. "My impression is that some of the material to be omitted proves crucial for precise understanding of some material kept in the proposed MFE syllabus."

Moving derivatives to MFE would potentially fix the problem of FM's material range, and allow unicourse. For actuarial students at UT, and M 339W into one MFE-oriented course, and making ACF 329 explicitly FM-focused. As it stands now, UT offers these courses to help students prepare for FM and MFE in succession.

Continued on page 5....

Interested in being part of the team?

Risky Business needs writers,

photographers, editors and designers!

Contact the Liaison for information on

how to join us:

Rbliaison.acsciclub@gmail.com



In Case You Missed IT...

FM AND MFE CHANGES

(CONTINUED FROM PAGE 4)

"I'm a fan of the changes—at least, of moving financial derivatives to MFE," said Walch.
"Maybe I'm not necessarily a fan of everything they're cutting, but definitely a fan of keeping FM only Interest Theory material. And I think it would also be advantageous to our students because then there would be no reason to not take FM as soon as you're done with ACF 329."

The targeted date for implementation is early 2017. Reading sources and terminology are being discussed and determined, but so far there is no word on these details. Such large changes take time to consider and implement and may even not be announced until next year, so students will know about syllabus changes far in advance of testing. If students are planning on taking either FM or MFE this year they should continue preparation as usual.

-Kylie Chesser



Senior Julia Ware with
SOA President Elect
Craig Reynolds
(Photo Credit: Julia Ware)



Senior Nikki Liu with SOA President Elect Craig Reynolds (Photo Credit: Nikki Liu)

ADVICE ON SKILL SETS IN THE WORKPLACE

Experienced Actuaries Share Tips For Students: How to Succeed After College

Four actuaries shared tips with Risky Business on how to land the job and, once there, how to succeed.

"[Actuarial science] got my interest after I found out that it was mostly math with a business application," said Jesus Flores, a retirement benefits consulting actuary at Towers Watson.

Catherine Kenagy, a retirement consulting actuary at Aon Hewitt, added "I get to be super nerdy with all my technical calculations but I also get to sit down with CFOs of major corporations and consult with them on how to more effectively achieve their business/operations goals with their benefit plans."

Communication was one of the most important skills emphasized by all four actuaries. The ability to explain complex math models with easily understandable language to the clients is imperative to becoming a competent actuary.

"My team works a lot with field managers who need help understanding how the CAT [catastrophe] models work and what all goes into the model," Shared Peter Ott, currently working in catastrophe management and modeling at Liberty Mutual. "Rare events such as earthquakes can be difficult to wrap your mind around especially when you go to price that specific peril."

Once a new actuary lands his or her initial employment, the challenges are just beginning.

"There is a very steep learning curve with your very first job,"

Kenagy warned. "I overcame this by to other managers and see what asking questions, finding good mentors, and talking with other entry level actuaries who felt the same way as me."

One of the biggest challenges awaiting all actuarial candidates is the exam process.

"You need to find your rhythm and figure out what works best for you," Ott said. "Keep in the mind that the race is long but at the end of the day it's only against yourself. It's not productive to compare your progress against other students."

Flores emphasized seeking a good work-life balance was crucial to his exam success.

"Good time management and focusing on studying when I had the time to do it were critical," he said. "You're not going to have the freedom and energy that you have when you leave college so try to make good use of it. I like to travel with my friends and that's what I've done, so find something that you like and don't let work and exams take 100% of your time."

While passing exams as fast as possible is important, it is also important to consider your career path, according to Scott Merkord, currently working in actuarial training and development at USAA.

"Utilize mentors and leaders to help you along the way as you identify your career and goals outside of actuarial exams," Merkord advises.

"Start researching actuarial roles that interest you early on; talk type of work really sparks your interest," Ott affirmed.

Flores suggested to first find what you like doing and choose a workplace that you like going to.

"When you realize that you'll be working on that for the next 40 or so years it is important that it's something that you like," says Flores. "As students or recent grads, there is time to try different things so give yourself an opportunity to try something that you like."

Ott says he regularly faces challenges requiring him to look beyond the specific project. He suggests asking ourselves deeper questions: How does this analysis impact other work streams? Why was this question brought up in the first place? How can I generalize this work?

"By our very nature and training we are very good at crunching numbers, but don't forget that those numbers ultimately have a business context," Ott said.

Merkord has a last piece of advice for students: "You have incredible talent so maintain your energy and optimism to go apply those skills and make a difference."

- Elin Kim



NEW CASE STUDIES COURSE TO COVER P&C

The actuarial science program is getting an exciting new class next year: a unique case studies class taught by Professor Alisa Walch. M 375T is an upper division course focused on the property and casualty side of actuarial work. The course content covers projects that a property and casualty actuary would see on the job, which makes this class different from other courses currently offered.

This class is designed for upper division students. More specifically, students who know they want to work in the property and casualty field will get more value out of this course. As a project-based class, it will have no more than 40 students. However, there is background information needed to do the projects so the class will be taught through a combination of presentations and

The actuarial science program is lectures. The prerequisites are ACF ing an exciting new class next 329 and either M 339J or M 339U.

The course curriculum was developed by the Casualty Actuarial Society (CAS) Exam 5 texts and other case studies from several sources. Walch was a part of a CAS case studies working group, which came up with cases designed for classroom settings. Additionally, professors at other schools with courses like this were open to sharing their syllabi with Walch.

One reason Walch said she wanted to teach the course is to give students more exposure to the property and casualty field, as this side of the actuarial career is sometimes not as well-known as the Society of Actuaries (SOA) side. Walch said she wishes it were a course that had been available to her in school because it would have been advantageous to

get a glimpse in the classroom of P&C actuarial work. She hopes it will give students a competitive edge by teaching them actuarial skills, such as applying thoughtful judgment and thinking critically and logically when there is more than one right answer.

This is part of what makes the course so unique: it is not examfocused, so it will help prepare students for their day to day work as an actuary.

M 375T is one that students should really look into taking as it provides a unique perspective that isn't offered elsewhere in college. It will be beneficial to both students and to the program as it covers ideas that will truly help students prepare for an actuarial job.

-Allison Barry

SPRING CAREER FAIRS: TAKE ADVANTAGE

Flickr Image: UTAMagazine

Career fairs are full of opportunities. It's a time when students and employers can meet face to face and try to sell their work ethic or work place.

I took the opportunity at the College of Natural Science's Spring Career Fair to ask the employers how they felt the difference between the Spring Fair and the Fall Fair affects their recruitment methods. They agreed unanimously that the Spring Fair is much smaller than the fall one—on both sides of the booth. But is that a bad thing?

For those students looking for a job in the spring, the employers seem to see great dedication in them. Most students understand that employers are usually done recruiting in the fall, but one can often find a last-minute opening and interview opportunity. Students attending the Spring Fair show their interest and dedication, making themselves ideal additions as interns or new hires in any actuarial company.

The Spring Fair should not be taken lightly. If you are still in need of a job, then the employers there are looking for you. Why wouldn't you go?

- Wes James



NEW CAS EXAM S FOCUSES ON STATISTICS

Starting October 2015, the Casu-chains, and survival models, as well alty Actuarial Society will offer a new examination, Exam S – Statistics and Probabilistic Models.

When the Society of Actuaries and the Casualty Actuarial Society decided to discontinue jointly sponsoring the preliminary actuarial exams, the Casualty Actuarial Society had the opportunity to refocus its curriculum. The changes mandate a deeper understanding of statistics.

The new Exam S replaces Exams LC and ST as well as the VEE in Applied Statistical Methods requirement and requires a thorough knowledge of calculus, probability, and interest theory. It covers probability models (stochastic processes, survival models including limited life contingencies concepts), statistics, general linear models, and time series with constant variance.

UT has many classes that indirectly cover the material in Exam S with no courses currently aimed at teaching S material specifically.

The probability models section covers stochastic processes, Markov

as life contingencies. Survival models are covered in depth as part of probability modeling. Markov chains model how an entity can move through different states. Life contingency problems can be viewed as discounted cash flow problems that include the effect of probability of payment. These are covered through tions behind the extended linear a study note linking the generic survival model concepts to life actuarial concepts to illustrate how to calculate annuities or single premium insurance amounts, as in M 339U.

The material covered under the statistics section is commonly found in a second semester course of a two semester Probability & Statistics sequence at the undergraduate level, will cover a large proportion of the such as our M 378K.

The extended linear model section covers generalized linear models, a predictive modeling technique commonly used to construct classification plans. Ordinary Least Squares is also covered, as a member of the exponential family.

The time series section covers

an introduction to modeling activity over time such as financial results or stock prices using the Auto Regressive Integrated Moving Average (ARIMA) where activity in a given time period may be linked to activity in subsequent time periods. That connection between adjacent time periods violates one of the assumpmodeling techniques, but the ARIMA approach incorporates that linkage as an aid in predicting future results. Students learn the ARIMA process in M 349R.

Exam S will test the candidate's knowledge of topics that are presented in the learning objectives. One should expect that each exam learning objectives and associated knowledge statements with the suggested readings, and that all of these will be tested at least once over the course of a few years, but each one may not be covered on each exam.

Students can find a list of useful Exam S materials on page 9.

-Jenny Guo

From CAS Website

Candidate Credit on August 31, 2015			Action Required by August 31, 2016
Exam ST	Exam LC	Stats VEE	to Earn Credit for new Exam S
✓	>	✓	Credit granted. No candidate action required.
✓	~		Complete the Applied Statistical Methods VEE.
✓		✓	Pass Exam LC.
✓			Pass Exam LC and complete the Applied
			Statistical Methods VEE.
	>	✓	Pass Exam ST.
	✓		Pass Exam ST and complete the Applied
			Statistical Methods VEE.
		✓	Candidate must take full Exam S.
			Candidate must take full Exam S.

The CAS Exam S will replace CAS Exams ST, LC and the Stats VEE. Students who have already passed one of these can choose to fulfill Exam S by completing the others.

SUBGROUPS FOR SUCCESS: NEW CLUB FAMILIES

The Actuarial Science Club has created the opportunity for students to join "families," subgroups designed to promote communication and success.

There are currently four families in the club with about 50 students involved overall. Each family has two leaders, almost half of which are upcoming club officers. Club president elect Alex Shirsat is a co-leader, as well as 2015-16 officers Trevor VanOsselaer, Jessica Hastings, Emily Bell and Jason Rossiter.

The families are meant to provide small social gathering opportunities so that the club members can get to know each other outside of class and the formal weekly actuarial club meetings. These gatherings provide social interaction for members who wish to be more active in the club. The families also enable newer members to learn from older members and ask questions about the actuarial path.

Turnouts for the club as a whole have improved this semester, indicating that the change in organization has



been successful. The Actuarial Science Club Events
Coordinator, Stacy Liu, started this initiative by researching how other clubs at the University boost social involvement. Liu hopes this improvement trend
follows through to next year when the club's new
events coordinator, Emily Bell, takes the helm.
The family leaders will change each year on a volunteer and selection basis. As new members join the
club, they will be added to the existing families so that
the make-up of each remains a good distribution from
seniors to freshmen.

- Wes James

A Club family Co-Led by Emily Bell and Stacy Liu meets up for lunch at Torchy's.

CAS EXAM S MATERIALS (SEE PAGE 8)

<u>Free online text references on the CAS webpage:</u>

- -J.W. Daniel, *Poisson Processes (and Mixture Distributions)*
- -J. Guszcza and M. Rosenberg, *Predictive Modeling Applications in Actuarial Science: Volume 1. Predictive Modeling Techniques*
- -Thomas Struppeck: *Life Contingencies*

Books useful for studying for Exam S:

- -Paul S. P. Cowpertwait and Andrew Metcalfe, *Introductory Time Series with R*
- -P. de Jong and G. Heller, *Generalized Linear Models for Insurance Data*
- -Sheldon Ross, *Introduction to Probability Models* (Eleventh Edition)



AUTONOMOUS CARS DRIVING P&C OPPORTUNITIES

CAS Member Speaks with Students on Future of Auto Industry, How to Adapt

Property and casualty actuaries will have plenty of new opportunities thanks to autonomous cars, according to Sherry Huang, a Casualty Actuarial Society task force member.

Huang, who works with Saama Technologies, gave a breakdown of the current state of self-driving cars at the April 14 Actuarial Science Club meeting. Members learned about the biggest questions keeping autonomous cars from hitting the highway en mass.

"How safe is safe enough, and who should be setting these standards?" asked Huang. She says the question of safety is difficult to answer.

"We have seen new risks that we didn't know about before," Huang explained. "Human driving risk is so different from automated vehicles. which we don't vet understand."

Once autonomous cars are ready for the road, issues will doubtless arise involving their auto policies. Auto plans now are composed of liability and first-party coverage. Liability coverage provides for accidents caused by the insured's car, while first-party coverage includes comprehensive, collision, and medical payment coverage. While the nature of first-party coverage is not likely to change, there are many questions to be answered about liability in the event of an accident.

In traditional cars, human error causes the lion's share of accidents. When the car is no longer under human control, it becomes ambiguous



who is liable in the event of an accident. One possibility puts liability on the designer of the car. However, that's only one option of many, and the least likely option, according to Huang.

no matter what, you're at fault ... and to the new market. As more data is your insurance company will have to collected concerning autonomous pay when your car causes an accident," she said.

The industry could instead model auto policies after product liability policies. However, Huang says there are problems with this approach, noting that "it's a very expensive process to prove the product is at fault." There are also legal issues involved.

"Today there are a lot of differences in state regulations, especially in personal auto markets," Huang said, mentioning that legislation le-

galizing self-driving cars has failed in 14 states so far.

Ultimately, it is likely that auto policies in the future will be quite different from those today. Both established and new actuaries will "There's also the probability that need a wide range of skills to adapt cars, "big data" skills will become even more relevant.

> "We need to think about what skills we need today so that tomorrow we're ready," Huang said.

> Of course, the changes to the insurance industry will not come quickly, as it may take many years before the technology is a standard feature in the automotive industry.

"It may be a matter of going from horses to cars ... or it may be similar to the airbag adoption rate, which was 25 years," Huang said.

- David Boon

2015-2016 ACTUARIAL SCIENCE CLUB OFFICERS



President: Alex Shirsat (Left)

Financial Director: Trevor VanOsselaer



Vice President: Jessica Hastings







Risky Business Liaison: Jason Rossiter (Center)

Events Coordinator: Emily Bell (Above, Right)

Administrative Director: Jenny Guo (Right)



SPRING 2015 ACTUARIAL SCHOLARSHIP HONOR ROLL

Endowed Scholarships

Mark and Pamela Callahan Endowed Scholarship in

Actuarial Studies

Avery Eyster

James Morris Dial Endowed Scholarship in Actuarial

Studies

Stacy Liu

Bruce Fuller Jr. Endowed Scholarship in Actuarial

Studies

Kevin Gregory

John S. Rudd Jr. Endowed Scholarship in Actuarial

Studies

Jordan Fike

Eugene Wisdom Memorial Endowed Scholarship in

Actuarial Studies

Steven Minkus

Recurring Scholarships

Actuaries' Club of the Southwest Scholarship

Nancy Nguyen

Ashley and Mark Guajardo Actuarial Scholarship

Jeffrey Shen

Milliman Standard of Excellence Scholarship

Jason Rossiter

Retirement Horizons Actuarial Scholarship

Kylie Chesser

Rudd and Wisdom Actuarial Studies Scholarships

Jamie Backiel

Chelsea Brown

Runxi Huang

Justin Park

Hillary Regan

Trevor VanOsselaer

Lu Xiao

Southwest Actuarial Forum (SWAF) Scholarship

Jinghao Xu

Troncoso Consulting Group Scholarships

Aman Parikh

USAA Property and Casualty Scholarship

Elin Kim

USAA Life Insurance Scholarships

Emily Bell

Yiran Shen

Justine Weng

TD1 Internship / Scholarships

Han-Yin Chang

Walter S. Richards

RECENT SOA EXAM ACCOMPLISHMENTS

Probability, P

Emily Bell, Junior

Chelsea Brown, Junior

Rolando Garcia, Junior

Ana Gonzalez, Sophomore

Rebecca Huizinga, Master's Student

Elin Kim, Sophomore

Stephanie Lowe, Junior

Michael Luo, Senior

Kaci Mohon, Master's Student

Aman Parikh, Junior

Hillary Regan, Sophomore

Models for

Financial Economics, MFE

Kristin Jones, Senior

Jason Rossiter, Junior

John Stark, Junior

Financial Mathematics, FM

Kylie Chesser, Senior

Sarah Fife, Junior

Rolando Garcia, Junior

Jenny Guo, Junior

Jessica Hastings, Sophomore

Elin Kim, Sophomore

Myong Song, Senior

Cristobal Nevares, Senior

Justin Park, Freshman

Yeaji Seo, Senior

Trevor Van Osselaer, Junior

Risky Business and the Actuarial Science
Club would like to congratulate all
passing candidates on their success.
We know you worked hard, and it paid off!