



# ACTUARIAL ACCOUNT WINTER NEWSLETTER

UCSB Actuarial Association 2017

Issue 3, Volume 2

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### 1) CASS Overview

UCSB AA held its second annual CASS (California Actuarial Student Summit), congregating professionals, faculty and students from a variety of schools. These included UCSB, UCLA, UCD, UCB, USC, APU, CPSLO, CSUF and others.

The event featured various speakers, panels and presentations for actuaries of all backgrounds, aspiring or experienced. The main goals of CASS was to teach new actuaries about intricacies of the industry, update prospective actuaries about changes to certain tracks and provide students and professionals with a day-long networking session.

It featured various booths like Ezra Penland, Coaching Actuaries and The Infinite Actuary, to name a few. The overall focus from the booths was to encourage, inform and motivate students to succeed academically while passing exams throughout their actuarial career.



The day long event included a keynote presentation from Ezra Penland.

#### Logistics:

*South Hall 5607A*

*University of California,  
Santa Barbara*

*<http://ucsbactuary.org/>*

#### Faculty Undergraduate

##### Advisor:

*Dr. Raya Feldman*

#### Staff Undergraduate

##### Advisor:

*Sarah Anderson*

#### Club Officers:

*President: Stephanie Lee*

*Vice President: Michael Ieputra*

*Treasurer: Richard Qian*

*Secretary: Bidal Orozco*

*Journalists: Jessie Xu and*

*Spencer Wu*

#### Contact:

*[aa.ucsb@gmail.com](mailto:aa.ucsb@gmail.com)*

#### Event Photos:

*<http://bit.ly/2fymqE8>*

## Interview with Jordan Jang

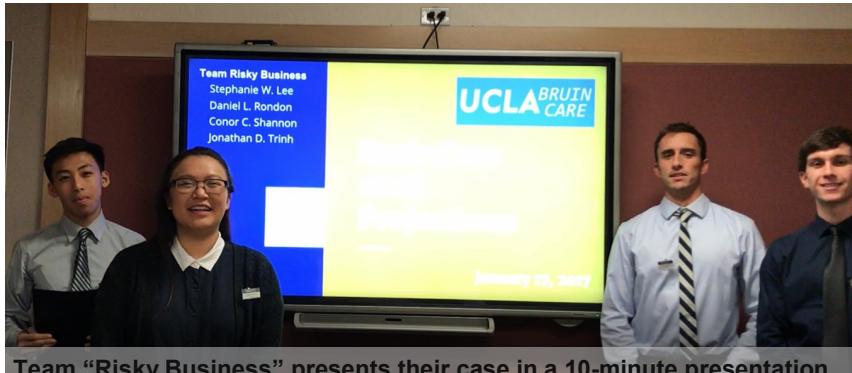
### CASS Afternoon Session Chair

The first year student helped by moderating the speakers during CASS.

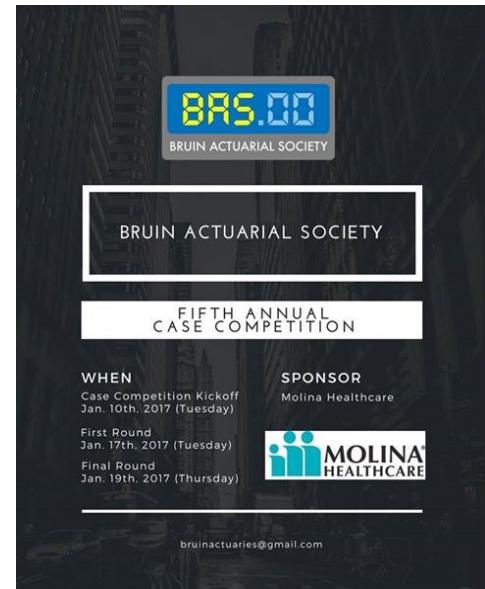


## 2) 5th Annual UCLA Case Competition

A team consisting of Stephanie Lee, Daniel Rondon, Jonathan Trinh and Connor Shannon (aptly named "Risky Business") advanced to the second round in the Bruin Actuarial Society sponsored case competition pertaining to Molina Health and the effects of the Affordable Care Act.



Team "Risky Business" presents their case in a 10-minute presentation.



## 3) Working with an Actuarial Spreadsheet

First, a definition of reserving was explained and club members unfamiliar with the term came to understand the necessity of insurers to set aside funds to pay claims that have already been incurred. A discussion of incurred but not reported (IBNR) losses took place and segued into a teaching of the Loss Development Method.

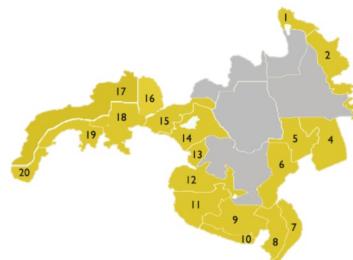
To begin the process, the 632 rows of given data were organized into triangle format by the incurred and paid claim dates using concatenate, vlookup, ifna, while utilizing shortcuts (shift+control+down) and anchoring (\$). Then, accumulated paid amounts were calculated based on the number of months using sum and offset functions. Next, age-to-age loss development factors were covered in detail using ratios between months of data, and followed up with modeling future loss development through averaging. Thus, the process was finished by estimating paid amounts for future months through projections and completing estimating IBNR.

## 4) Other Case Competitions (SOA/Berkeley Cases)

### SOA CASE COMPETITION

*Written by Stephanie Lee*

A group consisting of Meet Gala, Ryo Ichimura, Stephanie Lee, Daniel Rondon, and Richard Qian participated in the SOA Student Case Study Challenge March- April 2017. The team was asked to look into the categorization of the undeveloped regions of a fictional tropical island and allocate for each zone between Housing, Recreation, Conservation, Agriculture, Fisheries, and other usage. They had to take into consideration many rules about how much land they were able to appropriate to each categorization given Environmental data such as: Surface Area, Grassland Surface Area, Wetland Surface Area, Grassland Surface Area, Forest Surface Area, Other Surface Area, Duck Population, Snapper fish exploitation rate, average amount of soil organic matter measured in grassland soil, coastline length, and average altitude measurement.



Map highlighting the undeveloped coastal zones the case competition team needed to allocate resources to.

### BERKELEY CASE COMPETITION

*Written by Stephanie Lee*

Participants from 5 teams studied the 3 scenarios presented by CAL Actuarial League; written by Beam Dental, Delta Dental, Mercer (Health); CSAA Insurance Group (P&C); Aon (Retirement).

The Health Case Study questioned knowledge on the Public Health Exchange of the Affordable Care Act. There were questions about adverse selection, provider-led plans vs. traditional fee-for service plans. Teammates were asked to work through a scenario considering the Medicare Advantage market, and claims scenarios, methodologies included calculating: a Medicare bid, payment weighted risk score, risk adjusted benchmark, PMPM Medicare rebate, and to forecasting: health care costs, administrative costs and profit, and rebate.

The P&C Case Study was a reinsurance scenario that asked students to consider the effect of location, analyze "Tail Value at Risk" versus "Value at Risk," and define "excess of loss" treaty and "quota share" treaty. They were asked to approach 3 different reinsurance options from three different reinsurance companies based on pricing and descriptions.

The Retirement Case Study had students explain what PBGC premiums are, their current importance, and consider major risk factors. They were also asked to investigate risk reducing actions (Lump sum window for Terminated vested (TV) participants, annuity buyouts and buy-ins) and cover possible advantages and disadvantages. The scenario involved analyzing the viability of a lump sum window for TVs and an annuity buy out for retirees.

Participants included: 1) Meet Gala, Daniel Rondon, Dorothy Li, John Zhou // 2) James Henderson, David Hoskins, Johnny Trinh, Eileen Zhu // 3) Ryo Ichimura, Edwin Wu, Hejia Xu // 4) Benjamin Ho, Brandon Villadiego, Evelyn Fang, Sam Zhang // 5) Karla Orocio, Syen Yang, Calyn Zhang, James Unruh

## 5) Looking for an Actuarial Job

*Written by Stephanie Lee*

Students learned the order of importance actuarial recruiters look into: work experience, exams and VEEs, GPA, projects, and activities & leadership. They also learned strategies to becoming the ideal candidate to being called in for an interview, including looking at job descriptions and avoiding common document submission mistakes. Recommended sites to find jobs and internships were covered as well as the appropriate filters to utilize.

Important interview tips covering two main areas: how to impress with industry knowledge by being able to speak intelligently about company specifics and track-specific law changes and innovations during interviews as well as how to: prepare elevator pitches, consider answers to behavioral questions, and gain exposure to critical thinking questions. This was followed by environmental pointers to be conscious of during phone or video or in-person interviews. And a pro and cons list of California vs. other areas of the US vs. outside the US was discussed.



Students take notes on helpful pointers.

## 6) Advanced Excel Workshop for Actuaries

The most essential skill an actuary must have is comfortably working with Microsoft Excel. Treasurer Richard Qian helped facilitate discussing common and more advanced functions that actuaries use in an entry level job including. These included, but definitely are not limited to the index match function, indirect function and basic VBA. The Excel Workshop was held at SSMS 1303 and 1304 so students had their own computers to work on alongside learning from the instructor.



Richard Qian leads the class, going through basic VBA.



Students pay attention while tweaking their own sheets.

### Interview with Richard Qian

#### Excel Workshop Instructor

Treasurer Richard Qian lead the Advanced Excel Workshop for Actuaries and answered any questions regarding various programming functions.

##### **1. What did you enjoy most about teaching the workshop? Why?**

The participation is very inspiring. The amount of people showed up to the workshop really meant that they care about their major. I get to meet new people and help them with my experience. Helping people always makes me happy. Also, the functions that I show to them are used often in the industry but not really at school, so it's a good refresher for me as well.

It is important to equip our students with basic Excel knowledge so that they have an advantage when starting an internship. It's also a good refresher for myself since we rarely use complicated Excel functions in school.

##### **2. Do you think that students benefited by working together?**

Of course. Using Excel is just like every other skill: If you don't use it, you will never learn it or you will forget it very soon. I think first hand practice is quite important in learning how to use a tool such as Excel. Knowing the basics of Excel would give our students a leg up at their internship or at the start of their internship.

## 7) Working with an Actuarial Spreadsheet

Written by Spencer Wu

The main goal of this event is to define basic actuarial techniques on Excel as well as exposing aspiring actuaries the nitty gritty of the day to day job. To start, there are a bunch of programs that actuaries might encounter throughout their career. Other than Microsoft Excel, they may include but are not limited to VBA, R, SQL and SAS. Before tackling an insurance problem, it is always important to have background information or knowledge of the tangible subject matter to ground the mathematical and analytical work. In this instance, we covered the Cal Case Competition from 2016.

We laid out the textbook definition of reserving, which is estimating the current liability associated with future claim payments. Then, IBNR claims were defined, which is an incurred but not reported claim, also known as the amount owed by an insurer to all valid claimants who have covered loss but have not yet reported it. Under this, there are two things known as IBNER and IBNYR. The former being incurred but not enough reported, which is an estimated claim payment on known claims tend to increase over time until it is settled. The latter is an incurred but not yet reported claim. Using this, we were able to address the following: Briefly explain the concept of IBNR losses and construct a loss triangle and estimate IBNR.

## 8) Financial Wellness from Pete Neuwirth Presentation

A graduate of Harvard University, Pete Neuwirth spent over 30 years working as a Pension Actuary before getting involved with Financial Wellness issues (first with Towers Watson and now as an independent consultant and author). Mr. Neuwirth discussed how the field has emerged from demographic, economic and retirement industry trends over the last few decades. He also addressed financial wellness for an individual as well as the profession.



Neuwirth addresses the corporate concern of finance.



Colin Menz flips through one of Neuwirth's works.

## 9) Actuarial Speed Dating

During this social event, members got to know other people in the club while honing their interview and intrapersonal skills. In the last event of the quarter, the participants also worked on their elevator pitches and learned more about one another.



Members of the club interact during the event.

## Next Quarter (Spring 2017)

### 1. Guest Speaker: Scott Vandermyde (4/13)

Scott Vandermyde, the head of Actuarial Reserving at Farmer's, is coming to the Sobel Room from 11:00—12:00 PM on April 13th.

### 2. Actuary Day (4/28)

Located in Mosher Alumni House, meet like-minded individuals (1:00—5:00 PM).

### 3. End of Year Banquet (5/11)

Celebrate the end of the year and send off seniors for the closing event of the year at Mosher Alumni House (6:00—8:30 PM).

### 4. Guest Speaker: John Alltop (5/18)

Come join AA as the Chief Actuary at CSAC Excess Insurance Authority comes to the Sobel Room from 2:00—3:30 PM on May 18th.