

CASE COMPETITION INTRODUCTION

Bruin Actuarial Society

BAS.00

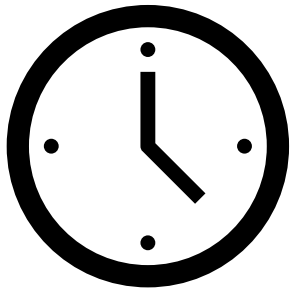
BRUIN ACTUARIAL SOCIETY

AGENDA

- What to Know
- Prior to First Meeting
- Walkthrough
- Final Words and Tips

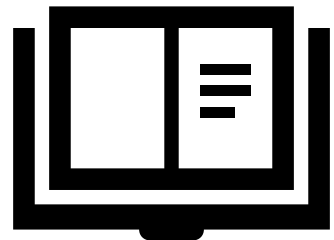
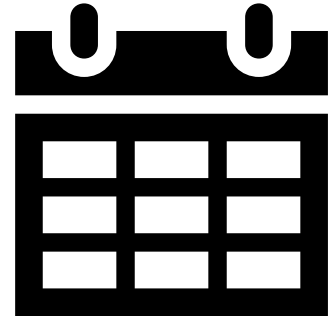
WHAT TO KNOW

- Underclassmen \neq burdens
- Expect to spend long hours on the case
- There is no single correct solution



PRIOR TO FIRST MEETING

- Set aside a ton of time to meet up, and meet as early and as much as possible
- Decide how to meet in the virtual environment
 - You can set up meeting on zoom or another platform
- After you receive the case, read it thoroughly and come to first meeting ready to discuss
- **Advice:** Don't waste valuable group time reading the case



WALKTHROUGH

1) WRITE DOWN YOUR ACTION PLAN

- Prioritize more immediate tasks
 - e.g. understanding the Excel workbook
- Look closely. The case might give you a to-do list!

2020 Case:

1. Analyze the data by the bands provided. For each factor, consider if the win rates are intuitive. If so, explain the intuition. If not, explain why these results might've occurred.
 - (a) Assuming the same amount of utilization, what are some other factors that could cause one group to have a higher loss ratio than others?
 - (b) In the past, some groups with a higher loss ratio had a lower rate increase. Give some reasons as to why this might've occurred.

2) LOOK FOR INFORMATION IN CASE

- Read any definitions and look up words and concepts you don't know
 - More experienced team members may be a good resource
- This will help with your overall understanding of the case as well as the to-do list

2019 Case:

The company offers four main auto insurance coverages: Bodily Injury Liability (BI), Physical Damage Liability (PD), Comprehensive (COMP), and Collision (COLL).

Besides the “Driver Averaging”, another common option used for driver level rating is called “Driver Assignment” – Each vehicle in the policy will be assigned to a primary driver, whose driver profile will be used to determine the driver level factors.

3) EXAMINE DATA

- Comparing the data to your action plan, determine what information you need to know
 - Is there any terminology in the workbook you need to look up?
 - Do you understand what the data represents?
- Think about what you know and what you do not know. Discuss with your teammates what steps need to be taken to accomplish your task

4) DELEGATE DUTIES APPROPRIATELY

- Excel isn't like Google Sheets where you can collaborate in real-time
- The person most experienced with Excel can be the “keeper” of the data
- People with design or research skills can work on other parts of the case in non-Excel roles
- Roles are fluid and are NOT strict

4A) DEEP DIVE INTO EXCEL ROLE

- Rearrange data to best suit team's needs at different times
 - Ex: Between group meetings, the Excel person creates columns using COUNTIF to sort data
- Convene with rest of the team when there is a major obstacle to overcome
- Explain Excel procedures to another member (who may also be experienced with Excel) to catch potential errors

4B) DEEP DIVE INTO NON-EXCEL ROLES

- Don't avoid Excel (e.g. may help fill in gaps)
- Research background info, like qualitative trends that may be associated with quantitative trends in data
- Discuss how to make certain calculations. Once everyone agrees on the methods, assign calculations to each person
- Create charts and graphics for the presentation

4C) ROLES ARE NOT ISOLATED

- If multiple team members are experienced with Excel, you should swap roles periodically and check in with each other
- Non-Excel people can ask Excel person to determine useful numbers for calculations or to create graphs to illustrate a point
- Excel person contributes to major discussions and must also agree with methods for calculations
- Non-Excel people can double check Excel person's work and progress

4D) COLLABORATION BETWEEN ROLES

To work around the lack of real-time collaboration in Excel:

- Non-Excel people can make calculations and graphs in their own Excel sheets
- Individual sheets are sent to Excel person to be compiled into one central document
- Excel person regularly sends out consolidated sheets to the rest of the team so everyone has updated info to work with

5) ASSIGN TASKS TO EACH PERSON

- Excel person starts organizing data in a useful manner
- Other team members select independent parts to work on
- Re-assign new tasks as they're completed
 - e.g. Researching qualitative trends, creating other figures, etc.
- For some tasks, it may be helpful to brainstorm together
 - Such as for tasks that require ideas, start by discussing the problem as a group
 - Then one person can develop the ideas further

6) ASSIGN PARTS OF THE PRESENTATION

- Decide together on the theme and format of the presentation
- Each person create slides for their respective parts
 - This may be the parts they worked on and understand
- Send slides to one person who compiles them, making edits as needed, into a single uniform presentation
- Send the unified presentation out to the whole team

7) ALL WRITE EXECUTIVE SUMMARY

- Use google docs for real-time collaboration may be a good idea
- Discuss content to be included and create an outline
- Assign each person a part to write
- Read over the entire summary individually and as a group, making edits as needed



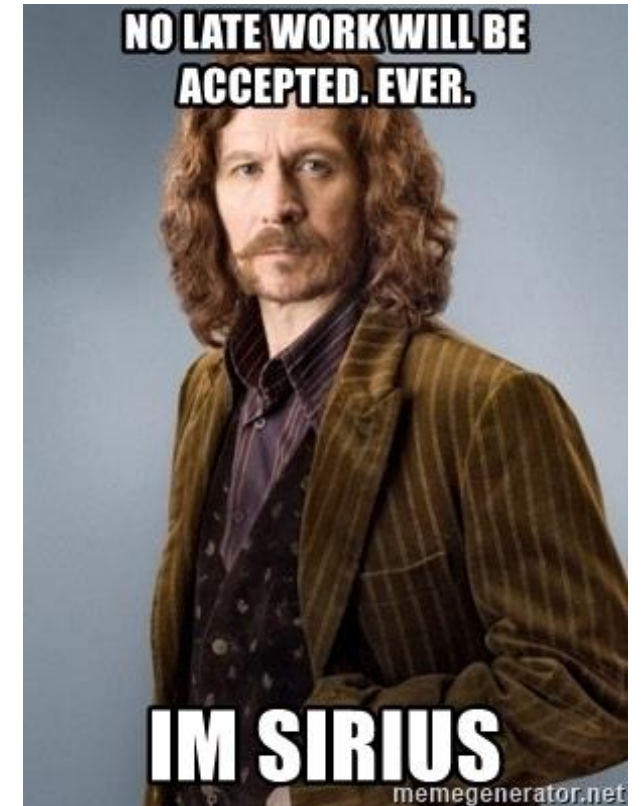
8) PRACTICE PRESENTING

- Decide who will present what slides
- Practice individually
 - Think about and practice gestures and body posture
 - It should sound natural and not like you are reading off a script
- Run through entire presentation as a group
 - Think about timing and transitions
 - Don't be afraid to give each other feedback
- When you are ready, record your presentation



9) SUBMIT DELIVERABLES ON TIME

- Include
 - Presentation slides
 - Executive summary
 - Excel workbook
 - Presentation video
- You can't compete with what you don't submit!



RECAP OF WALKTHROUGH

- 1) Write down action plan
- 2) Look for information/definitions
- 3) Examine data
- 4) Delegate duties
- 5) Assign tasks
- 6) Make the presentation
- 7) Write the executive summary
- 8) Practice presenting
- 9) SUBMIT DELIVERABLES

FINAL WORDS AND TIPS

FINAL WORDS AND TIPS

- Try your best and present ANYTHING you come up with, even if you don't think you have much to present
- There's nothing wrong with stating what you know and don't know
 - If you know you don't have time to do something, don't waste time on it; focus on getting something that CAN be presented
- Use presentations from previous years' finalists (found on BAS website) as examples

Eighth Annual Actuarial Case Competition January 2020 - Presented by Beam Dental

In the 2020 Case Competition, students served as actuaries at a group dental insurance provider founded in 2012. As the company was growing rapidly, they are concerned about their loss ratio. Teams were asked to develop a retention probability model and to utilize it to develop a strategy to meet the company's loss ratio goals. An excerpt from the assignment is as follows:

"You are an actuary at Block Dental. Block Dental was founded in 2012 and has been aggressive with trying to win

First-Place Winners

Team 28 (UCLA)

Wilson Yu
Yunqi Shi
Boyang Wan
Hengyuan Qi
[Presentation](#)
[Memorandum](#)

Finalists

Team 25 (UCLA) Team 19 (UCSB) Team 11 (UCSB)

Bryan Le	Joshua Chen	Justin Wang
Joey Pai	Michael Kwok	John Tran
Priscilla Tsai	Max Reedy	Christina Chyi
Yuka Kozakai	Ian Low	Kumann Liu
Presentation	Presentation	Presentation
Memorandum	Memorandum	Memorandum

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FINAL WORDS AND TIPS

- ABSOLUTELY talk to each other constantly
 - Explain thought process of Excel procedures, recommendations, conclusions, etc. to each other to reveal errors or details that were overlooked
- Keep a running list of any assumptions you make, calculation methodologies, etc.
- Don't stress over lack of Excel experience
 - Attend BAS Excel workshops and use workbooks on BAS website as a resource

Basic Excel Workshop Thursday, November 5, 2020



If you want to start learning how to use Excel as more than a way to store data, this is the workshop for you! Excel is the most widely used program for data analysis in the actuarial industry, so proficiency in Excel will prepare you to succeed in the workforce. Having basic Excel skills will also be helpful for our Case Competition in January, which is a valuable opportunity to gain relevant experience and industry knowledge that will give you a leg up in recruiting. This workshop will cover basic functions including IF, VLOOKUP, COUNTIF, and SUMIF along with Pivot Tables.

<https://ucla.zoom.us/j/93408240967>

Date: Thu., Nov. 5

Time: 6 PM PST

Dress Code: Casual

[RSVP here](#)

Download workshop materials:

- [Workbook](#)
- [Solutions](#)

Intermediate Excel Workshop Thursday, November 12, 2020

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FINAL WORDS AND TIPS

- Prepare for the unexpected
 - My team 100% didn't think we'd make it to the final round, but we ended up winning
 - Don't be intimidated out of doing the case competition!

The Case Competition is a worthwhile experience regardless of the outcome. What are you waiting for?

