Ask an expert?

Getting better judgement working party

Agenda

- Background and motivation

- Who is an expert?

- The advantage of an expert

- Ask an expert (empirical experiment)

- Conclusions

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Background and motivation

- "It is a *capital* mistake to theorise before you have all the evidence. It biases the judgement." (Sherlock Holmes, A Study in Scarlet [Italics by presenter])

Background and motivation

- The Working party was formed to try and advance awareness of bias in expert judgement and make changes as a result of this to increase confidence in the judgements elicited

- Through case studies and surveys apply our theory in real world scenarios to drive awareness and improvement

- Financial modelling places material judgments in the hands of experts

- Can we make expert judgement more scientific and less "guess work"?

Background and motivation

- "Getting better judgements" survey: web-based survey launched earlier in 2014

- Large volume of responses: 222 in total

- Representing range of geographies and types of work

- Aim to get practitioners' views on:

  - Most important issues relating to making judgments

  - Methods used to elicit judgments

  - Types of issues commonly encountered

  - What can be done to address these

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Background and motivation
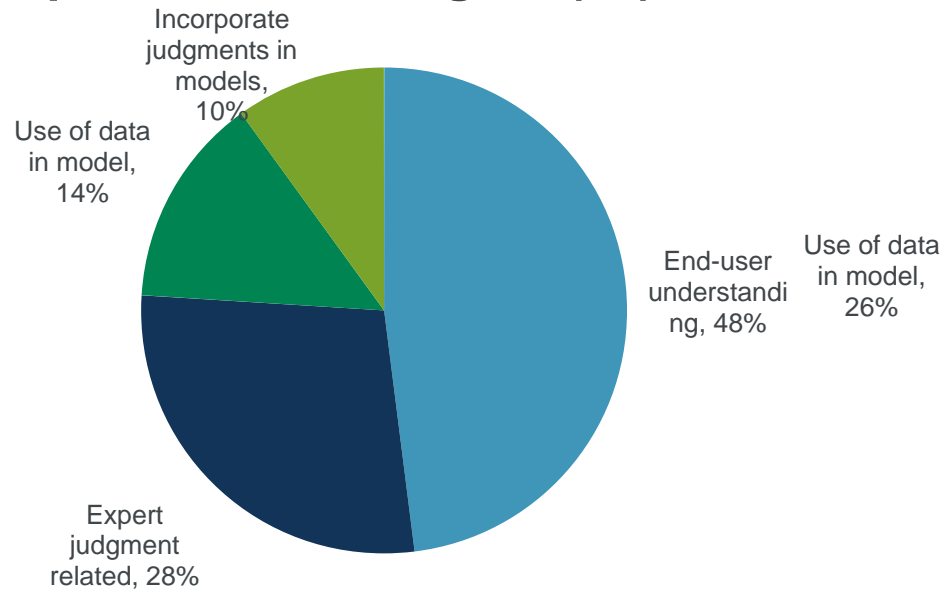
High Level of Interest in Expert Judgement
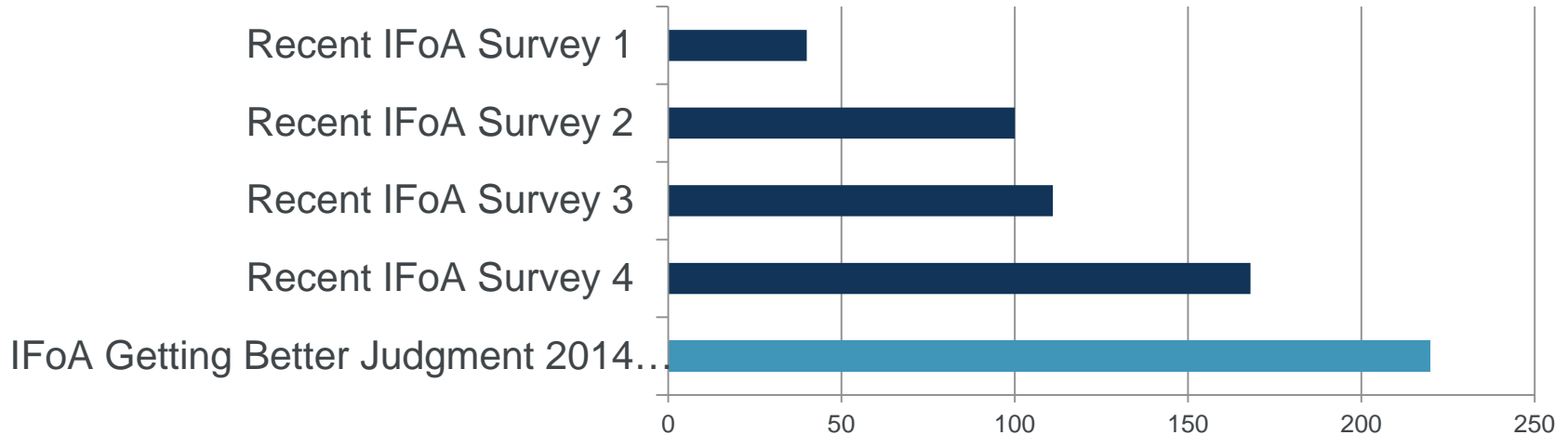
- 69 in capital / risk management; 48 based in UK
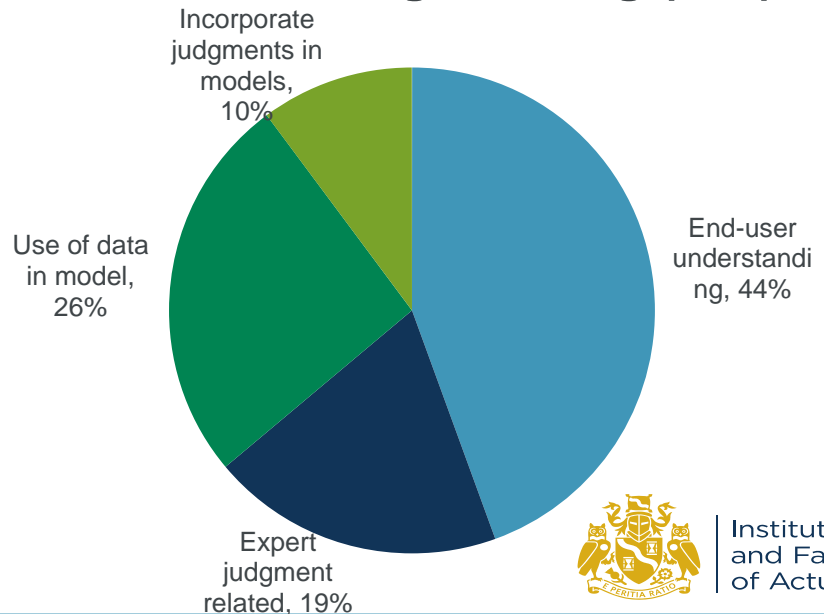
- 45 commercial insurance work (consultancy / in-house)

Background and motivation

Survey results - What do you rank as most important?

Capital / Risk Managers (50)

- Incorporate judgments in models, 10%
- Use of data in model, 14%
- End-user understanding, 48%
- Expert judgment related, 28%

Reserving / Pricing (108)

- Incorporate judgments in models, 10%
- Use of data in model, 26%
- End-user understanding, 44%
- Expert judgment related, 19%

Cognitive heuristics and biases

Small sample bias

Overconfidence

Availability

Anchoring and not adjusting enough

Deliberate bias

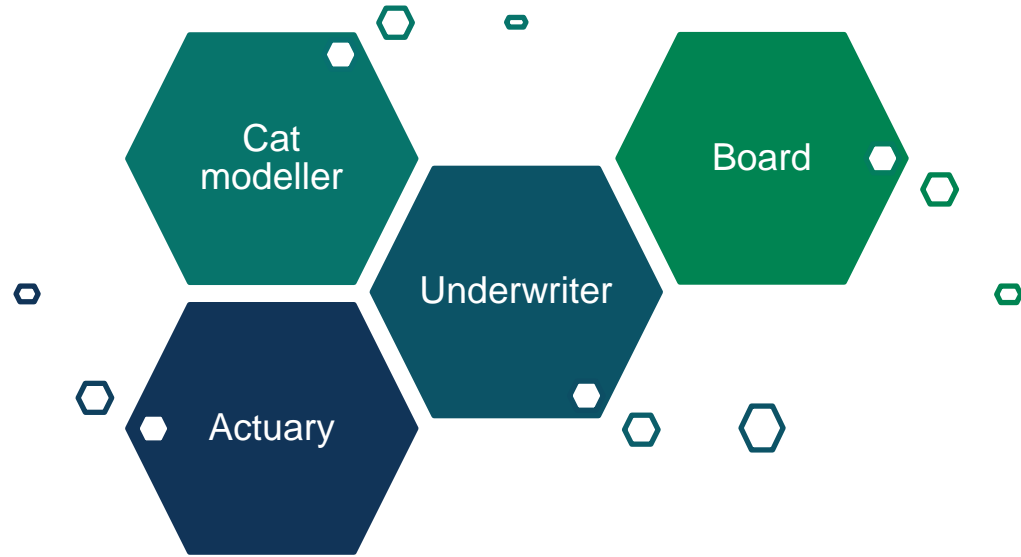Answering an easier question

Framing

Who is an expert?

- What about theorising where the evidence will always be limited and there is inherent uncertainty

- Maybe we can't become more correct but can we be less *systematically* incorrect
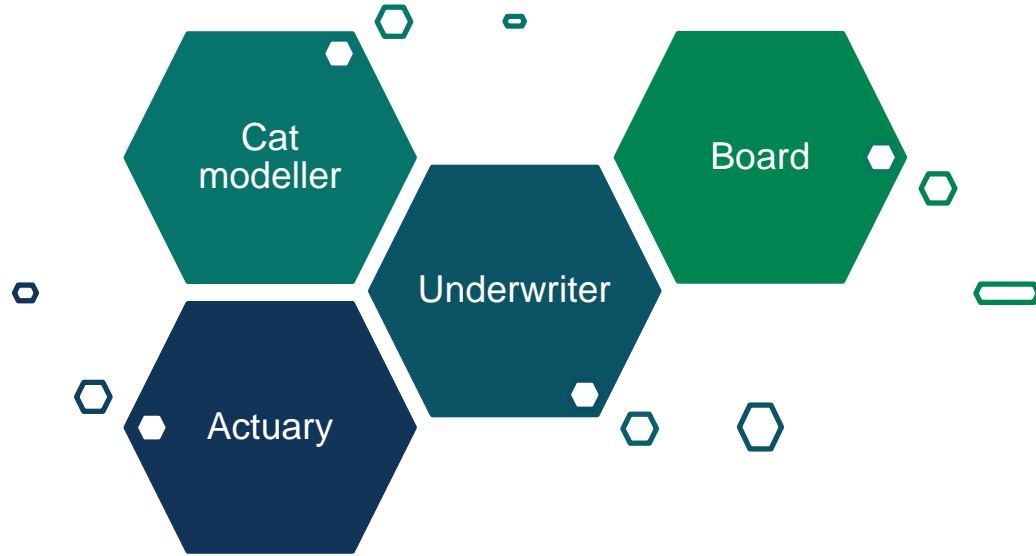
Who is an expert?

Who is an expert?

Subject Expert

Decision Maker

Facilitator

Technical Expert

Cat modeller

Underwriter

Board

Actuary

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Who is an expert?

- Capital modelling actuaries have many hats:
  - Statistician
  - Reporter
  - Programmer
  - Presenter
  - Firefighter?!

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The advantage of an expert

- Ellsberg work

- Individuals are ambiguity averse

- Where the question is difficult/unclear they will go with the default option and be more influenced by others

- An expert often acts where there is ambiguity – but do they do this effectively?

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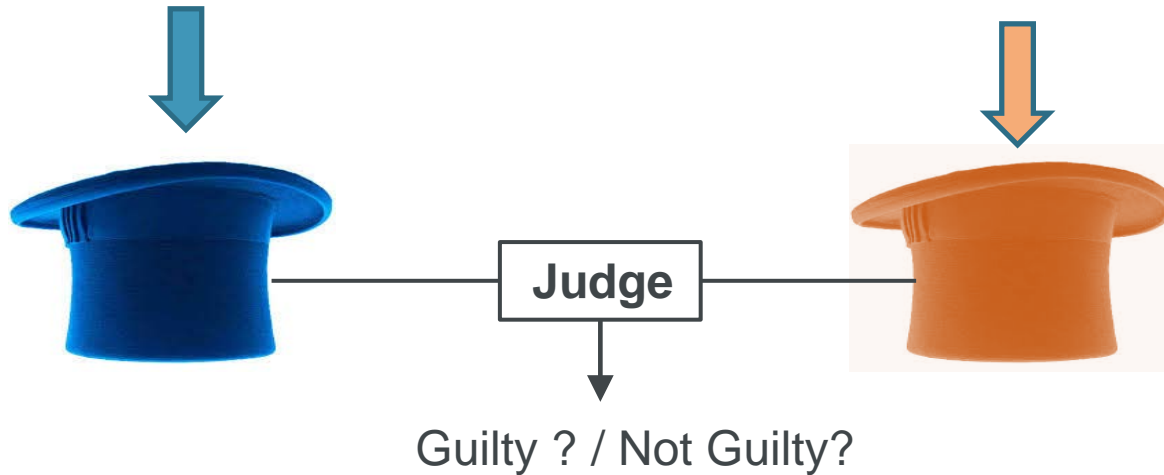and Faculty
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Blending judgement with data *in court*

Testimonial Evidence
- Witness(es)
- Suspect(s)
- …

Physical Evidence
- DNA Evidence
- Biological material
- …

Judge

Guilty ? / Not Guilty?

Ask an expert?

- Empirical experiments slides to be created on the day

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Conclusion

- The use of expert judgement materially impacts financial modelling

- Statistical basis important, but not uniquely so

  - Framing

  - Wording

  - Accessibility

  - Optimism

  - Pre-conception

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What are you planning to do in the next 12 months?

Easier(?) and more popular

- Private study
- Discuss more
- Seminars
- Best practice sharing

Harder(?) and less popular

- Systemic review
- Organise training
- Peer review policy rethink
- Produce checklists
- Organise internal exam for students

Working Party Plans

- ATRC, December 2014

  - Exploring judgmental topics in actuarial science – both in teaching and research

  - Who are the experts here?

- Development and consolidation of ideas

  - Write up of paper – Mid 2015?

Working party members

Working Party Members	Sectors (Employers)	Actuarial Activities	At Seminar?
Bernadette Hlavka	London Market (Tokio Millennium Re)	Pricing, capital	
Catherine Scullion	Public Sector (GAD)	Pricing, fin. modelling and risk mgt.	Yes
Ed Tredger	Consultancy (UMACS)	Capital, pricing, software	
Helen Lau	General Insurance (Allianz)	Capital	Yes
Jo Lo (chair)	London Market (Aspen)	R&D, actuarial modelling, risk mgt.	Yes
Michael Garner	London Market (Atrium)	Capital, reserving, pricing	
Nick Bonello	London Market (ANV)	Capital	
Sejal Haria	Regulator (PRA)	Risk mgt., fin. modelling, business strategy	
Steven Fisher	Consultancy (LCP)	Capital, reserving	

Questions

Comments

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.

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