Reinvigorating the Australian research funding system

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Introduction

- Problem: is our research budget spent wisely?
  - by and large, evidence is weak
  - other areas have better program evaluation
- What is the objective?
  - maximise creation and diffusion of knowledge
- This talk:
  - outlines some issues with the current system
  - is based on economic principles and personal observations, not systematic evidence!
  - makes a case for better data access and analysis

Incentives matter

- Research is arduous, risky and long-term
- Incentives are vital in such a system
- Incentives matter for productivity and quality, but also for innovation and creativity
- NIH vs HHMI (Azoulay et al 2011)
  - HHMI: longer-term focus, promotes blue-sky work, tolerates ‘failure’, less ex ante project description
  - HHMI produces high-impact research at a much higher rate than NIH
- We must provide incentives to do hard stuff!

Demographics matter

- Demographics of research are changing:
  - age of great invention is increasing (Ben Jones)
  - 'burden of knowledge' means team size increasing
- Moreover, research publication lags are long
- These changes not reflected in our funding system (aside from Future Fellows)
- And our grants are still short-term (3 years)
- We should increase grant length and let universities manage year-on-year performance

Efficiency matters

- Current system is expensive and ‘noisy’
- By ‘noisy’, I mean that there is some randomness in who gets research funding
- Recent ideas to improve efficiency, lower opportunity costs and minimise ‘noise’:
  - Simply triage the top/bottom 20% applications and randomly allocate the remaining money to the rest
  - Allocate money to researchers who must then pass on x% to researchers they hold in high regard
- A ‘cheap but noisy’ system would be better!

Costs matter

- Opportunity Costs
  - resources dedicated to writing, assessing and reporting on grants is huge
  - free-up time via shorter research applications
  - researchers should be doing research!
- Full-cost of research should be acknowledged
  - at present, teaching revenues cross-subsidise research (and engagement)
  - can’t allocate resources efficiently like this
  - salaries/overheads should be paid in grants

Conclusions

- Time is ripe to reinvigorate the system: a period of major change in the sector awaits
- Some things are hard to change (e.g. limited diversity of funding opportunities), but others seem easier
- Some basic economic principles can help guide us
- Let’s get researchers back doing more research: the opportunity cost is too high