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