NEW ZEALAND INSTITUTE FOR THE STUDY OF COMPETITION AND REGULATION INC.

PAY PEANUTS AND GET MONKEYS?

Evidence from NZ Universities

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PEANUTS AND MONKEYS, MONKEYS AND PEANUTS…

James Goldsmith…

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BUT DO PEANUTS REALLY BEGET MONKEYS?

- Contrarian views
  - intrinsic motivation, not money
  - ‘peanuts attract a better class of monkey’
- Data difficulties
  - how does one identify ‘peanuts’ or ‘monkeys’?
  - privacy constraints

REQUIREMENTS FOR ‘CLEAN’ INVESTIGATION

- A single worker task
- Sub-group variation in remuneration
- Objective measure of sub-group performance

Due to PBRF, the NZ university system now provides data that meet these requirements.

PBRF

- Splitting of research and teaching funding
- All NZ academics required to submit a research portfolio for assessment by one of 12 panels covering 41 disciplines
- Each portfolio assigned a 'quality' grade

  (A, B, C, R = 10, 6, 2, 0)
- Individual scores not made public, but performance measures for each *discipline* computed and reported

PERFORMANCE MEASURES

- Average Quality Score
  - arithmetical average of discipline-researcher scores

- Proportion of R grades
  - ‘prevalence of monkeys’ in discipline

HOW ARE NZ ACADEMICS PAID?

- NZ academic pay depends only on rank, not on discipline

- But disciplines vary in labour market opportunities

> *If a university went ahead and paid equally, lowering economists' pay and raising French professors' pay, it would have a great French staff and a dreadful bunch of economists.*
> *(*Hamermesh, 2004, p180)

DISCIPLINE-SPECIFIC OPPORTUNITY COSTS

- Available proxy: US discipline-specific academic salaries

Remuneration Shortfall (RS) =

average US salary - average NZ salary

If peanuts beget monkeys, then high RS should be associated with weak research performance

SOME SIMPLE NUMBERS: I

DISCIPLINE CHARACTERISTIC	MEAN	MAX	MIN
Average Quality Score	2.79	4.74	0.34
Proportion of R grades	0.36	86.7	7.5
Remuneration Shortfall	$20,910	$90520	-$340

SOME SIMPLE NUMBERS: II

Top-5 Average Quality Score

Discipline	RS ranking
Philosophy	36
Anthropology and Archaeology	35
Earth Sciences	23
Ecology, Evolution and Behaviour	21
Biomedical	14

SOME SIMPLE NUMBERS: III

5 Most Underpaid

Discipline	AQS ranking
Accounting & Finance	34
Management etc	31
Law	20
Marketing and Tourism	30
Computer Science etc	26

REGRESSION ANALYSIS

Research performance = a + b*RS + **c***X** + e

X= vector of control variables:

- History and research culture
- ‘Dilution’ of available resources
- Government funding category
- Ability to influence panel decisions

RESULTS SUMMARY

Performance Measure	Effect of $25000 increase in RS
Average Quality Score	-0.45 (-15%)
Percentage of R grades	8.4pp (26%)

Both effects are ‘statistically significant’ at 0.1% level

‘RANKING’ OF EXPLANATORY VARIABLES

Variable	‘Relative’ Ranking
1. History and research culture	2.5
2. ‘’Dilution’ of available resources	2.0
3. Remuneration Shortfall	**1.0**
4. Government funding category	0.6
5. Ability to influence panel decisions	0.4

MONKEY ECONOMICS?

- ‘Monkey-mimicking’ behaviour
  - consulting work
  - but applies to other countries as well, and therefore shouldn’t affect research scores
- RS a signal of ‘quality’
  - but then high-RS disciplines should have high research scores
- Part-time workers
  - endogenous response
- New researcher bias
  - age
  - proportion of non-submissions

MONKEY ECONOMICS? cont.

- Sample size
  - but same relationship exists in department-level data
- “Teaching matters too!”
  - but requires +ve correlation between RS and teaching performance!
  - teaching and research quality +vely correlated
- Work shifting
  - takes place *within* disciplines
  - no reason for why high-RS disciplines should systematically differ from low-RS disciplines

CONCLUSION

- The greater a discipline's average salary in US universities, the weaker its research performance in NZ universities.

- NZ universities apparently get what they pay for: disciplines in which the fixed compensation is high relative to opportunity cost are best able to recruit high-quality researchers.

- Paying (relative) peanuts attracts mainly monkeys

HEALTH WARNING!