



Australian Government
Department of Industry,
Innovation and Science

Office of the
Chief Economist

Competition or collaboration – from which well does innovation spring?

David Turvey

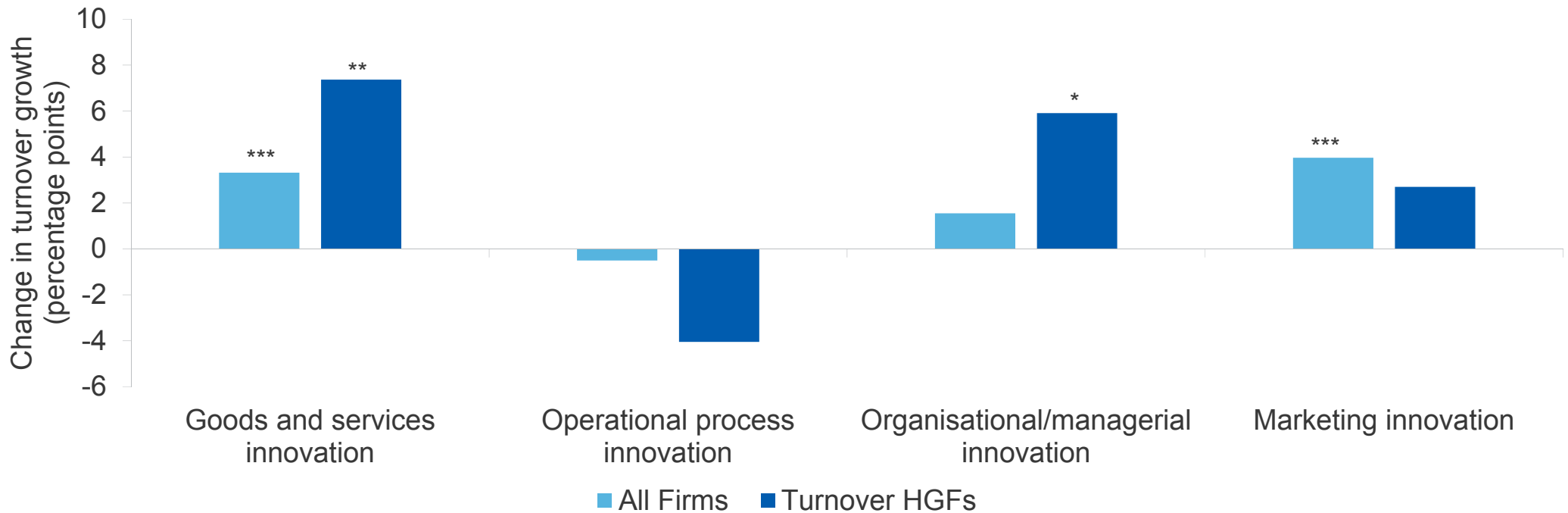
Office of the Chief Economist

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Innovation is important for firm growth

Innovation in goods and services, and marketing has a positive impact on firm growth

Impact on turnover from undertaking different types of innovation, by turnover growth category, 2005–06 to 2012–13



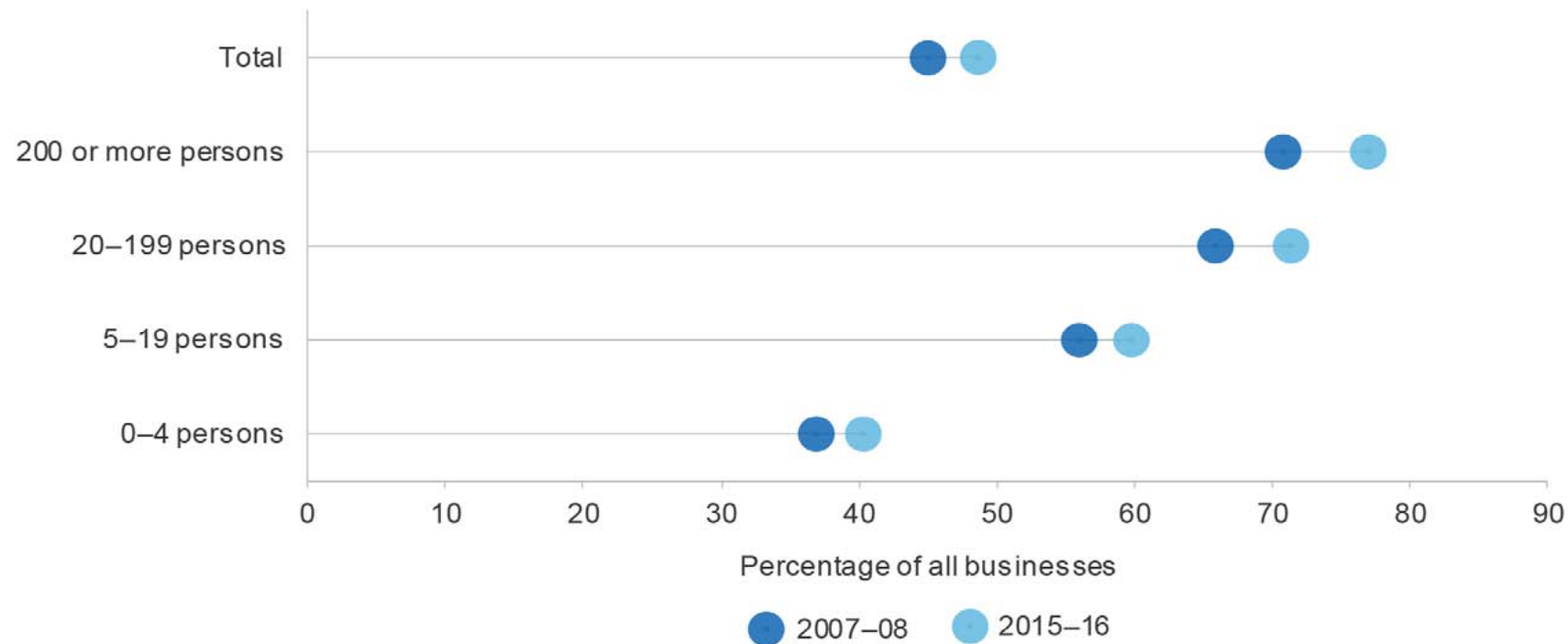
Notes: *** p<0.01, ** p<0.05, * p<0.1.

Source: ABS (2017) Business Longitudinal Analysis Data Environment (BLADE). Analysis by Department of Industry, Innovation and Science.

Innovation activity in Australia – firm level

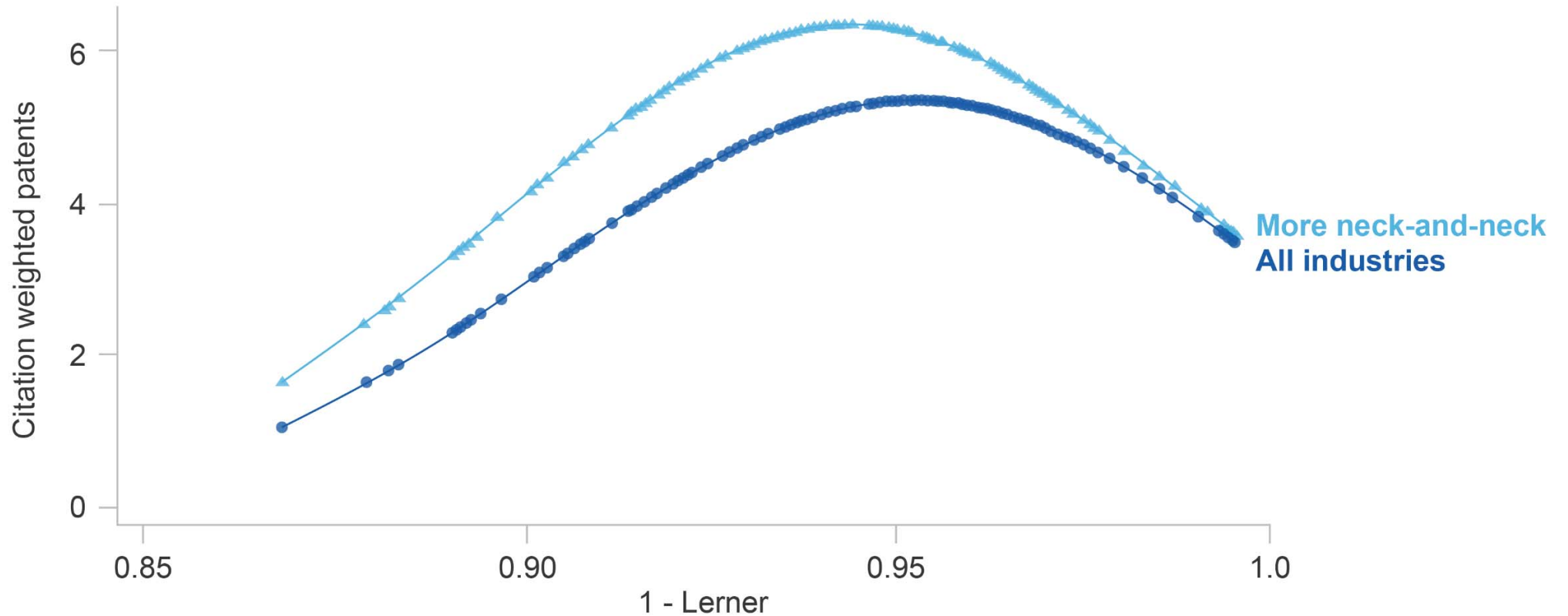
The number of innovation-active firms is increasing across all firm sizes

Innovation-active businesses, by business size, 2007–08 and 2015–16



Source: ABS (2017) *Summary of IT Use and Innovation in Australian Businesses, 2015-16 and 2007-08*, cat. no. 8166.0

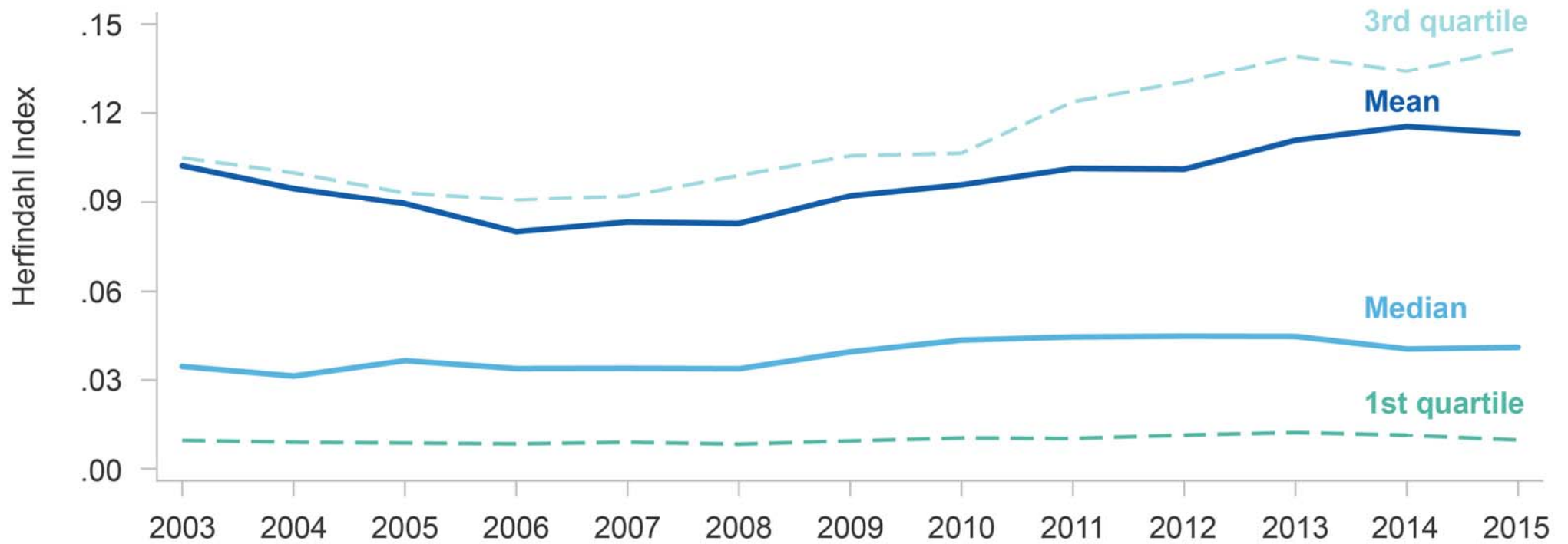
Inverted U-shape – competition and innovation



Note: cjt is the competition measure based on Lerner's Index

Source: Adapted from Aghion P, et al. (2005) *Competition and Innovation: an Inverted-U Relationship*

Competition in Australia's market sector



Source: Upcoming OCE research based on BLADE analysis

Collaboration indicators

Measuring the state of business-research collaboration in Australia



86.3%

of Australian innovation-active business undertook no collaboration at all in 2015–16



Less than

1 in 4

innovative firms collaborate on product and process innovation



Most R&D activities are

in-house

and do not involve partnership with other organisations



We are undertaking work to improve the way we measure

innovation statistics

Challenges with business-researcher collaboration

Insights from the Business Researcher Collaboration BizLab project

"Don't even know enough on what unis do and don't know how to fit our stuff in with them "

"For any company it's a long road and a risky process – risk/reward thing – if well cashed up and have long timeframes you can do it, if not you can't."

"The assumption is that I wouldn't want to collaborate again [because of a bad experience with a PFRO] but 'you need to collaborate'"

"the biggest barrier is that you've got an elephant and a mouse"

"The universities all wanted to go back to first principles ... but that can't work with this product. Universities wouldn't accept this – closed mindset"

"If you have a researcher who likes researching just for the sake of it, this is not so good"

"Legal costs and delays in big agreements associated with commercialisation and collaboration are an issue"

"Don't you guys talk? Government is replicating the same thing over and over again"

Commonwealth collaboration initiatives

Department of Industry, Innovation and Science

Cooperative Research Centres, Entrepreneurs' Program/Innovation Connections, Advanced Manufacturing Fund, Global Innovation Strategy

Department of Education and Training

Research Block Grants, Australian Mathematical Sciences Institute National Research Internships Program, National Collaborative Research Infrastructure Strategy, Academic Centres of Cyber Security Excellence

Australian Research Council

Linkage Program - Centres of Excellence Scheme, Industrial Transformation Research Program, Linkage Infrastructure, Equipment and Facilities Scheme, Linkage Projects, Engagement and Impact Assessment tool

Department of Health

Biomedical Translation Fund, Medical Research Future Fund



Further information



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