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MEDIA RELEASE

Australian researchers' productivity boom

University researchers have provided Australia with a research productivity boom, according to new analysis by the Innovative Research Universities (IRU), including more than doubling their research output compared to just a decade ago.

The IRU has found the total number of research outputs recorded by Australian academics increased from 45,560 in 2006 to 96,565 in 2016 – a rise of 112 percent.

That includes peer-reviewed journal articles as well as other research documents such as conference papers, book chapters, datasets and software.

The increase for Australia far outstrips any rises in comparator countries over the same period, such as the UK (49 percent), USA (30 percent) and the OECD total (39 percent). *[See Figure 1]*

China's published research output has grown at one of the fastest rates, with 246 percent recorded increase over the same period.

The analysis has been undertaken by the IRU as part of its submission to the House of Representatives' [Inquiry into Funding Australia's Research](#), which is looking at the efficiency and effectiveness of Australian Government funding for research.

The raw data comes from the Web of Science (WoS), a publications and citation indexing database that holds comprehensive information about academic publications around the world.

Australia is now responsible for roughly 4% of the total scientific output in the WoS, despite having only 0.3 percent of the world's population and 1.6 percent of world GDP.

The number of citations for Australian researchers has grown over the past decade too.

In 2006 Australian publications were already cited on average 17 percent more than other publications in their field when compared to the rest of the world. Since then the figure has risen even further, with Australian researchers 37 percent more likely to be cited than the global average.

That puts Australia well above the OECD average and on par with researchers from other highly cited nations such as the UK (141 percent more citations than the global average) and USA (130 percent more citations than the global average). *[See Figure 2]*

This growth in publishing productivity and high citation occurred during the period since the dual funding system was implemented from 2001 (open block grants for universities and directed competitive grants for projects).

Over that period directed grants from Government and investment in research from business and other research users has increased at a far greater rate than block grants.

There is no question the Commonwealth Grant Scheme does and should support academic staff time for research, the IRU says – which other Government grants do not do.

The growth in research output is not simply due to an expansion in the number of Australian researchers or greater co-authorship on publications. Publishing productivity per researcher increased from 0.7 author-fractionalised articles per year in 2006-2009 to 1.1 articles per year in 2013-2016, an increase of 48 percent. [See Figure 3]

Nor has increased productivity led to lower-impact publications. The proportion of highly cited research (5 percent most cited in their field) also increased over the same period (from 5.3 percent to 6.3 percent).

The figures provide further evidence that Australia’s research funding system and universities encourage high productivity and highly cited research.

Commenting, IRU Executive Director Conor King said:

“Australian researchers are world-class when it comes to the number of publications published and how highly those publications are regarded.

“The trends in Australia’s research performance are overwhelmingly positive. They point towards greater productivity, impact and support for end user research. It has occurred despite minimal increases to Government block grants for research.

“We need to look at the ARC grant application process for ways to simplify but it is clear that wholesale changes to the dual funding system are not warranted on productivity grounds.”

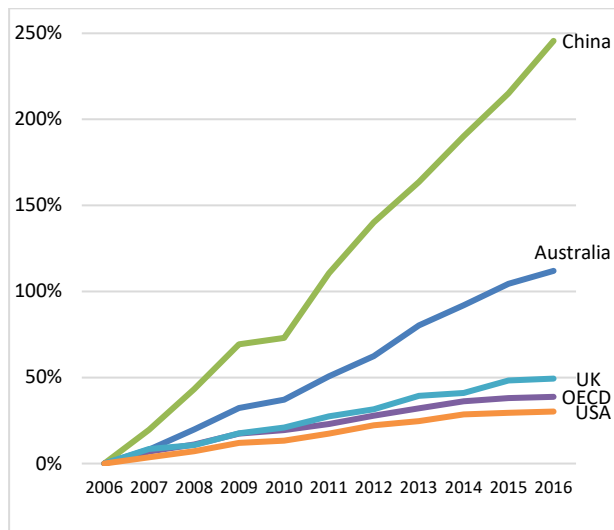


Figure 1. Growth in research output, Web of Science, since 2006

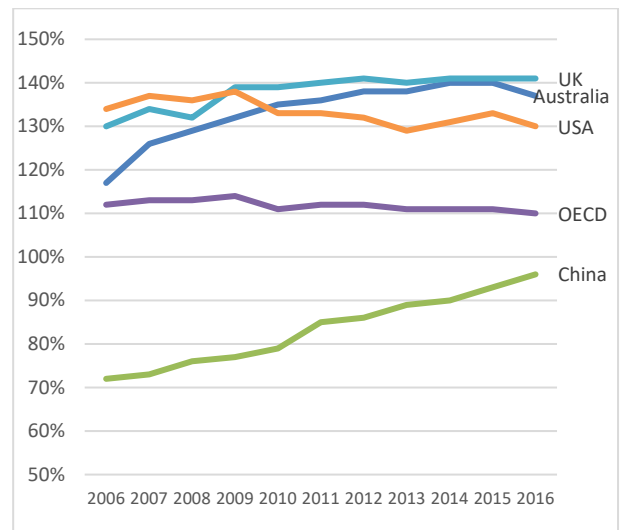


Figure 2. Field normalised citation rate, WoS, 2006-2016

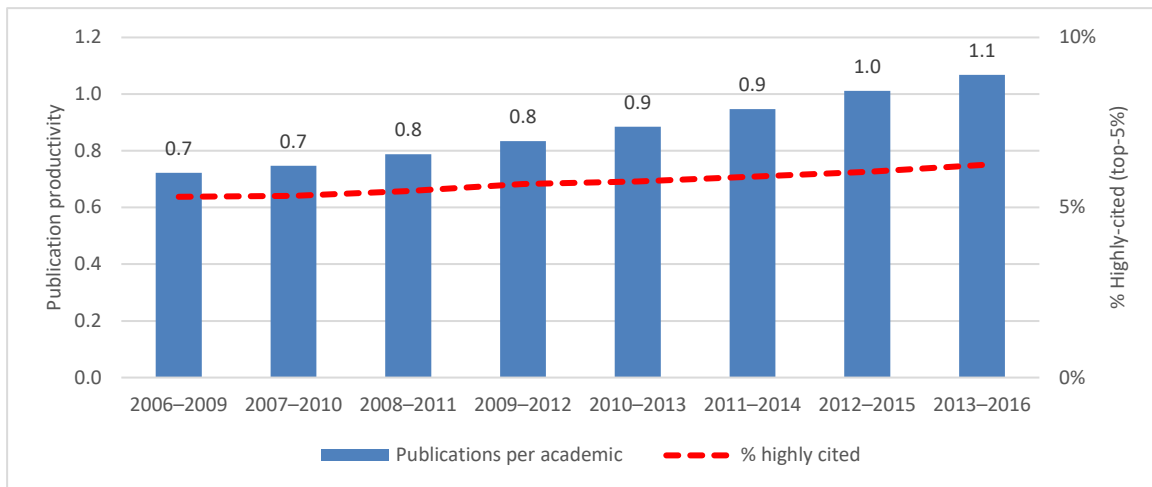


Figure 3. Annual publications per academic and % highly-cited (top-5%), WoS, Australian universities, by period

About the data

Base data was taken from official figures from the Web of Science (WoS), broken down and analysed by the IRU.

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About the IRU

The IRU is a network of seven comprehensive universities committed to inclusive excellence in teaching and research in Australia.

Its members are Charles Darwin University, Flinders University, Griffith University, James Cook University, La Trobe University, Murdoch University and Western Sydney University.