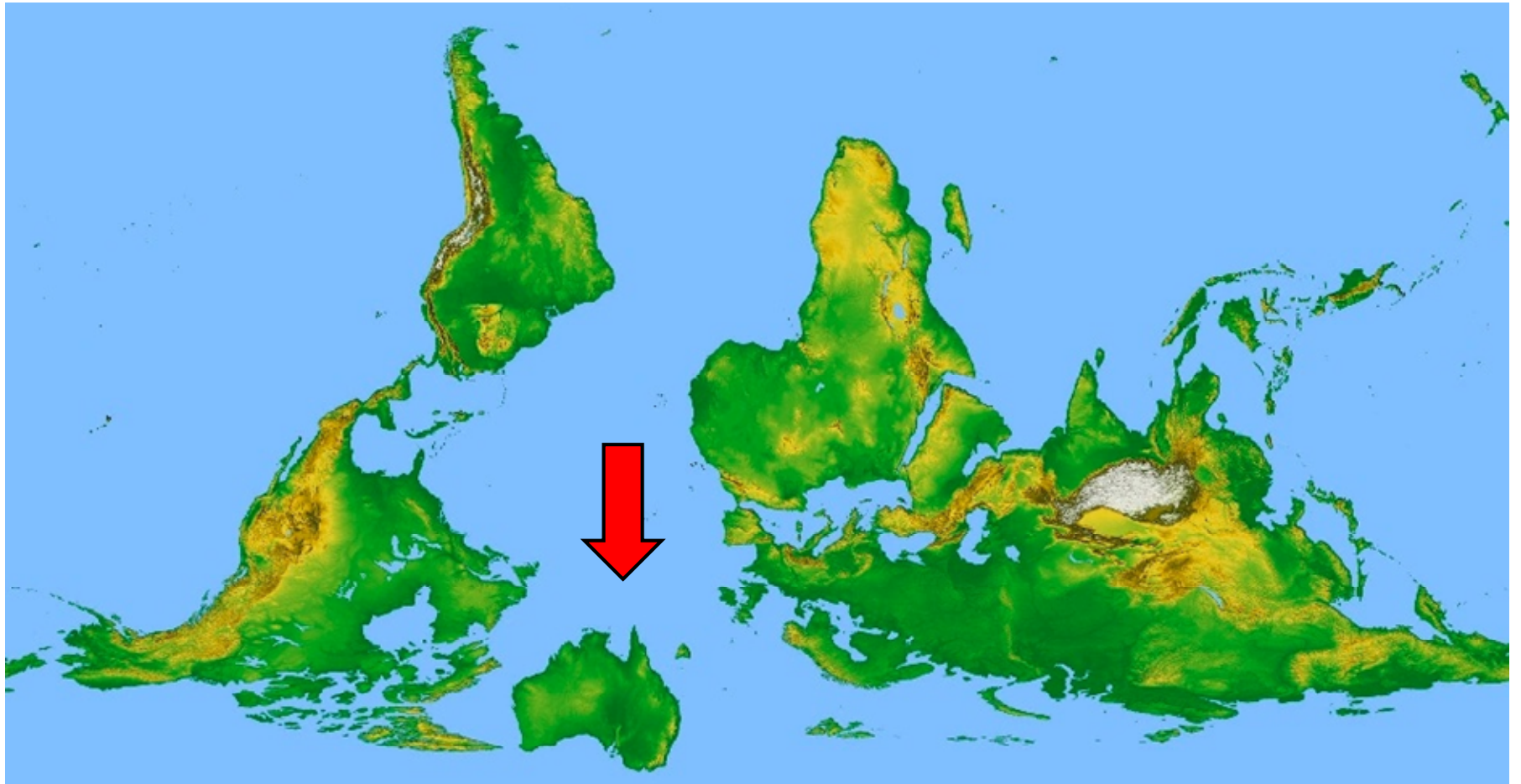
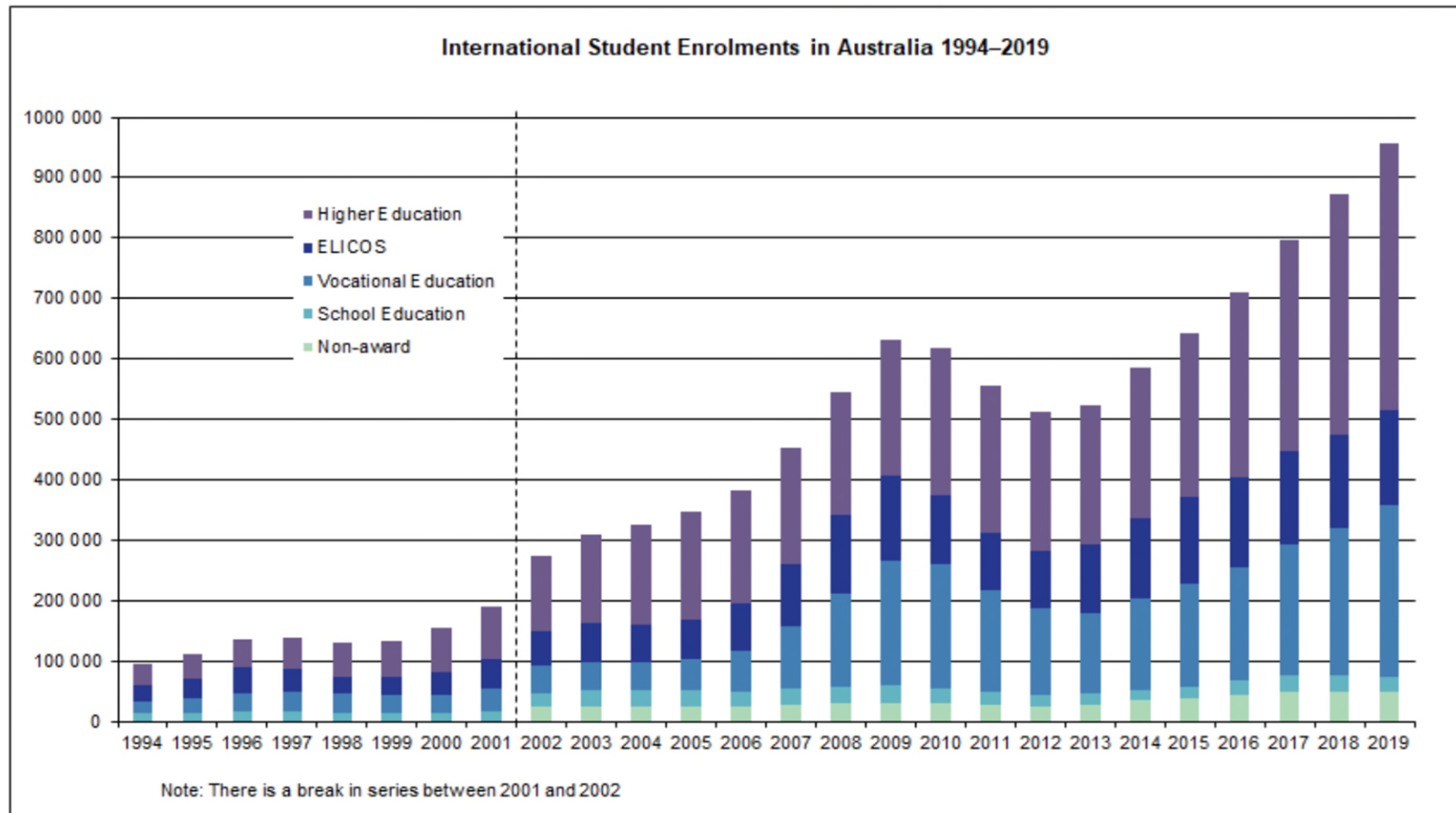


Universities and research in Australia in the Covid-19 crisis: **Is Down Under Going Under?**

Minto Felix and Simon Marginson

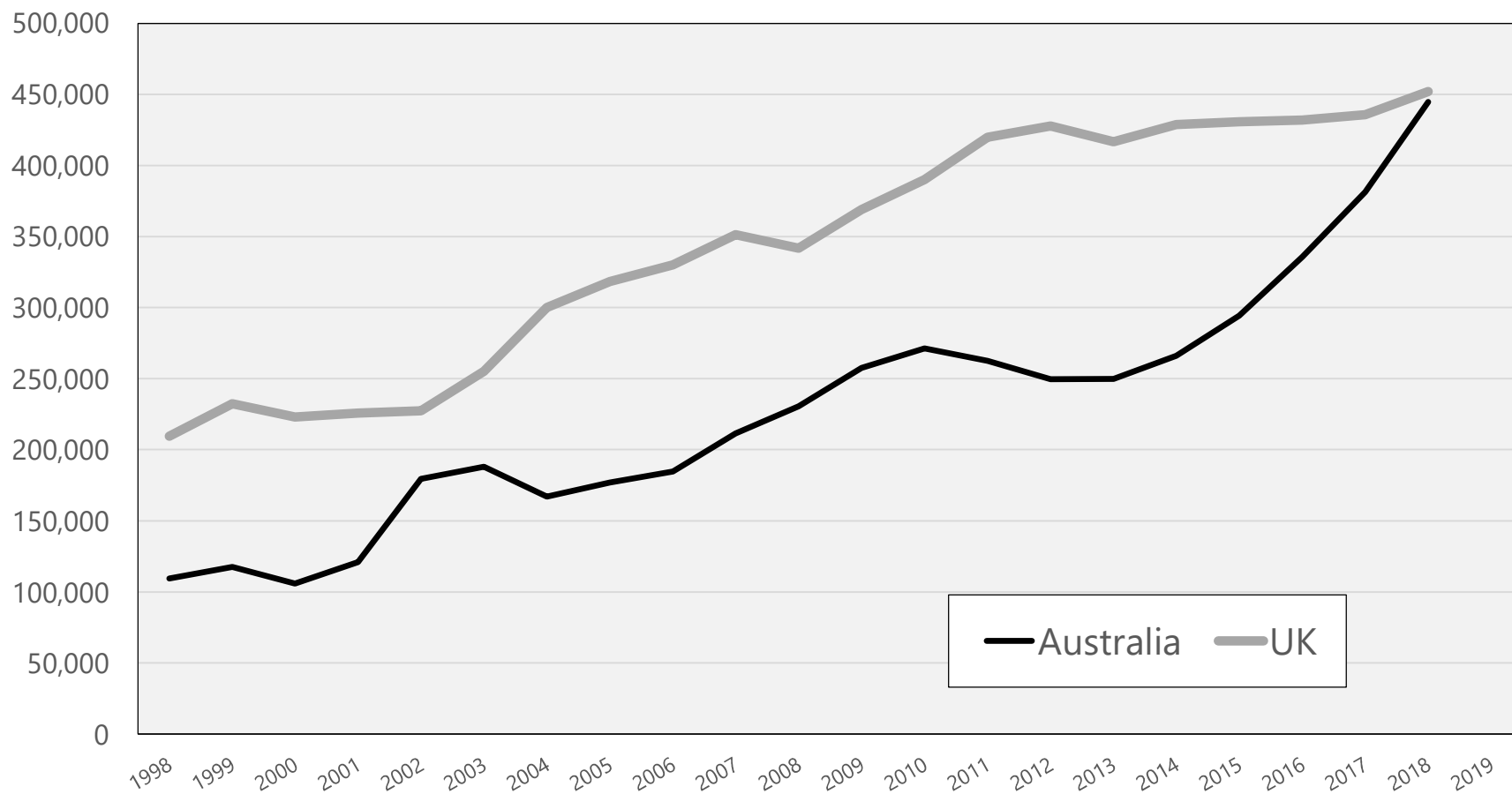


Australia has seen phenomenal longer-term growth in international students, approaching one million in all sectors in 2019, but is more vulnerable than US and UK to swings in demand (e.g. 2009-2014)



International students, higher education only, UK and Australia: 1998-2018

[Australia has 38% the population of UK]



Data: UNESCO Institute of Statistics

In 2019, one third of all Australian students in higher education (almost 500,000) were international, mostly from East, Southeast and South Asia

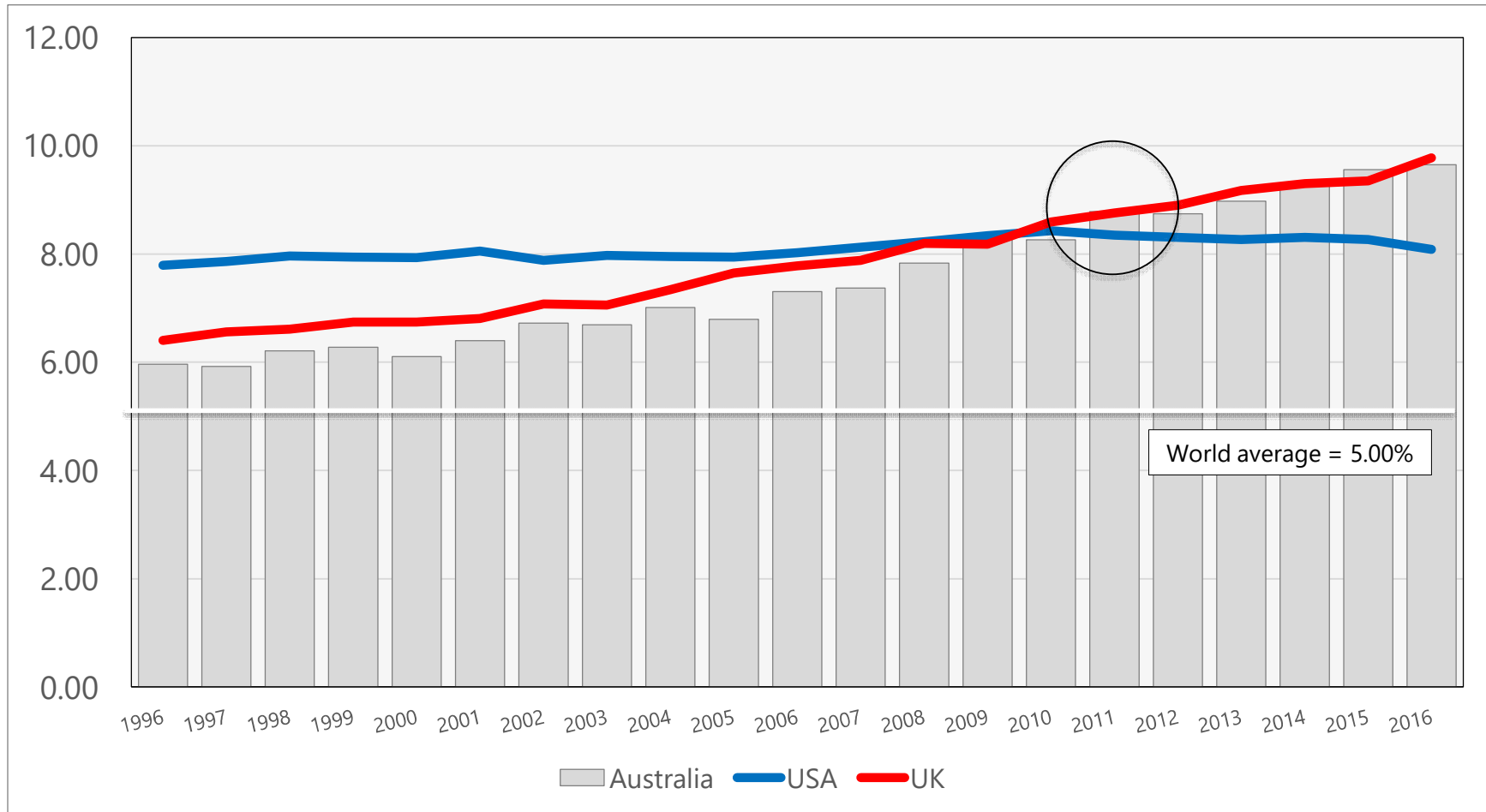
The year before in 2018, 27% of the total income of Australian higher education institutions was from international student fees

In 2021, the expected number of students is 125,000 including online

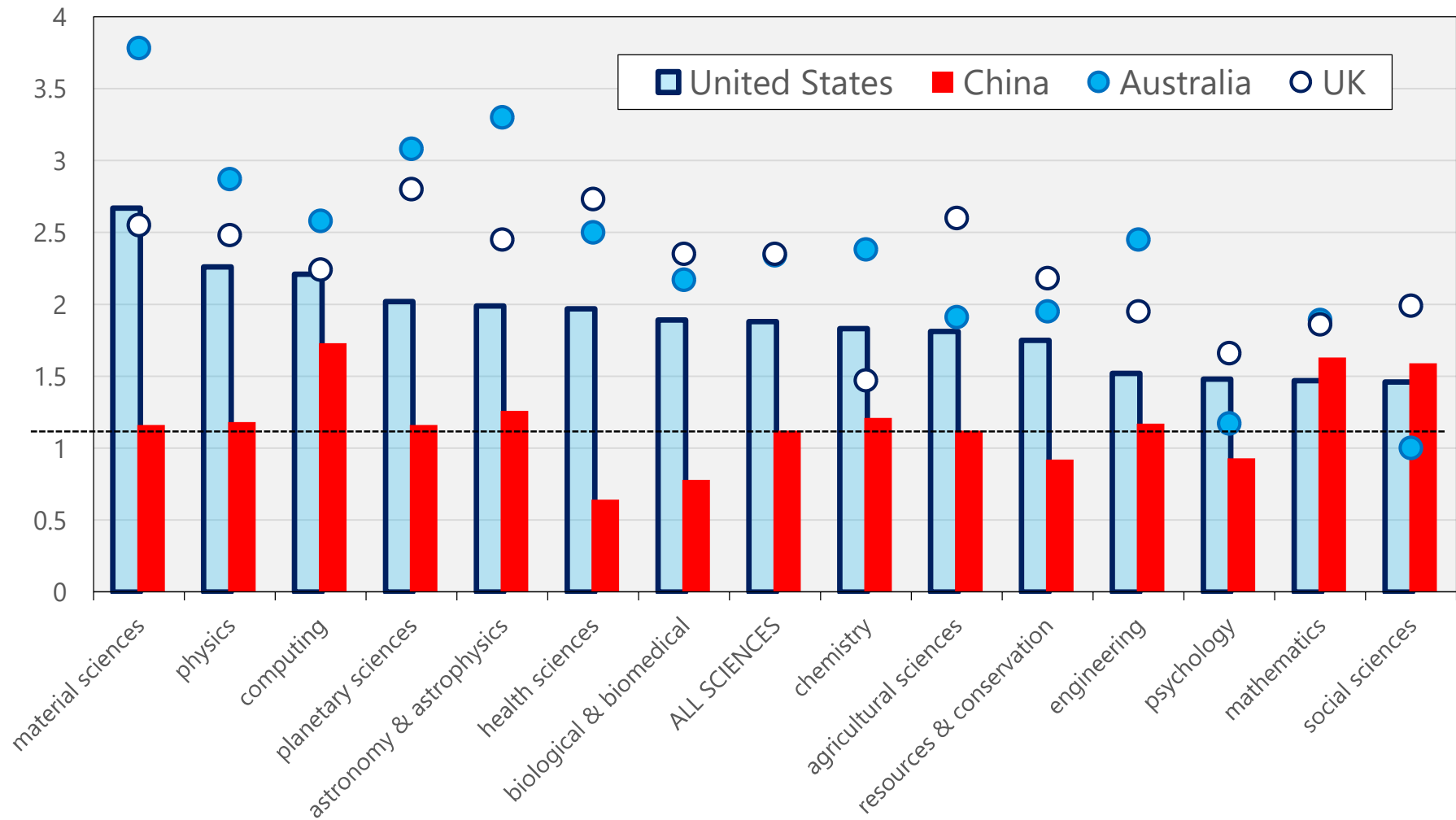
Countries	2015-16	2016-17	2017-18	2018-19	2019-20	% change on 2018-19
China (excludes SARs and Taiwan)	7,010	9,019	11,078	12,234	10,494	-14.2%
India	2,733	3,162	3,808	5,534	6,596	19.2%
Nepal	816	1,053	1,636	2,641	2,973	12.6%
Vietnam	1,195	1,219	1,301	1,377	1,404	2.0%
Malaysia	1,067	1,274	1,387	1,389	1,257	-9.5%
Brazil	605	696	870	1,017	991	-2.6%
Indonesia	748	804	865	943	988	4.8%
Korea, Republic of (South)	930	954	967	988	930	-5.9%
Philippines	407	403	405	575	872	51.7%
Colombia	363	431	558	724	856	18.2%
Rest of the world	8,271	9,108	9,717	10,402	10,188	-2.1%
Total (\$m)	24,145	28,123	32,592	37,824	37,549	-0.7%

What a 'failed business model' achieved :

Proportion of science papers in top 5% of their disciplinary field on the basis of citations, Scopus: by 2011 Australia reached UK & US



Proportion (%) of papers in top 1% of field, US, UK, China, Australia: 2016 *(world average = 1.0%)*



The Role of Research in Global Rankings

Rankings	Ratio of Publication-related indicators %	Databases
Leiden Ranking (Netherlands)	100.0	Clarivate Analytics' Web of Science
Best Global Universities (US)	72.5	Clarivate Analytics' Web of Science
Shanghai Jiaotong Academic Rankings of World Universities (China)	70.0	Clarivate Analytics' Web of Science
Times Higher Education World University Rankings (UK)	38.5	Elsevier's Scopus
QS World University Rankings (UK)	20.0	Elsevier's Scopus

Source: The methodology pages on above rankings' websites, updated on 21-January-2021.

Note that research performance has a further, indirect effect through its impact on the surveys used by Times Higher and QS

Australia's position in global rankings:

Shanghai ARWU top 10 countries, 2020

	top 100 universities	top 500 universities	top 500 universities per million people
United States	45	137	0.41
United Kingdom	8	36	0.53
Australia	7	23	0.92
China (mainland only)	6	71	0.05
France	5	17	0.25
Switzerland	5	8	0.92
Germany	4	30	0.36
Canada	4	19	0.50
Netherlands	4	12	0.71
Japan	3	14	0.11

Universities in Shanghai ARWU top 500, 2020

position	universities
1-100	Melbourne (35), Queensland (54), ANU (67), UNSW (74), Sydney (74), Monash (85), Western Australia (85)
101-200	Adelaide (151-200)
201-300	Curtin, Deakin, Macquarie, Swinburne, Tasmania, UT Sydney, Wollongong,
301-400	Griffith, James Cook, La Trobe, Queensland UT, RMIT, Newcastle, Western Sydney
401-500	Flinders

A further 10 Australian universities are ranked between 501 and 1000, so that 33 are ranked altogether. The ARWU is an exclusively research-based ranking

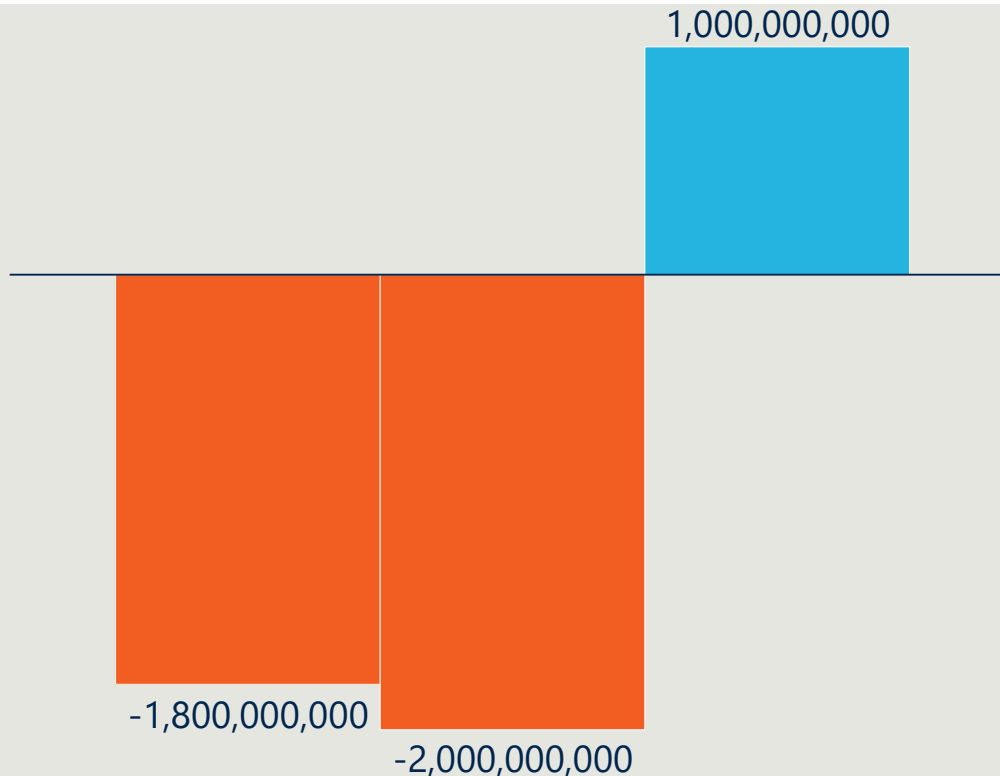
A virtuous circle? How 'soft money' funded much of Australia's system of basic science in universities



COVID-19 has dealt a serious blow to the research capacity and capability of the Australian university system, exacerbated by a lack of government support.

- Australia's management of the pandemic has been characterised by strict border closures (from the world and internally) and state-mandated quarantining arrangements. This has seen modest impacts in relation to fatalities.
- International students were encouraged to return home by the Prime Minister at the outset of the pandemic.
- As of February 3, 2021, Australian universities lost at least 17,300 jobs as a result of the pandemic and an estimated \$1.8 billion in revenue compared to 2019. This is set to continue this year due to continuing border closures and therefore, reduced international students in the system.
- While the loss of capacity in universities so far has been through a combination of reducing teaching, professional services and research staff, and through rationalising services and non-salary expenditure, **the impact on research will be felt for years to come.**
- In 2020, while other sectors in the economy were able to access government support through the Job Keeper scheme if they could demonstrate a decrease in income on the previous year, public universities were made exempt from this funding.
 - The Government changed the rules three times (changing threshold, changing categories, and so on) to disbar universities.
 - Meanwhile, highly profitable gambling companies were able to take advantage of Job Keeper wage support.

To mitigate the loss of research capacity, the Government provided a one-off injection of \$1bn for 2020-21.

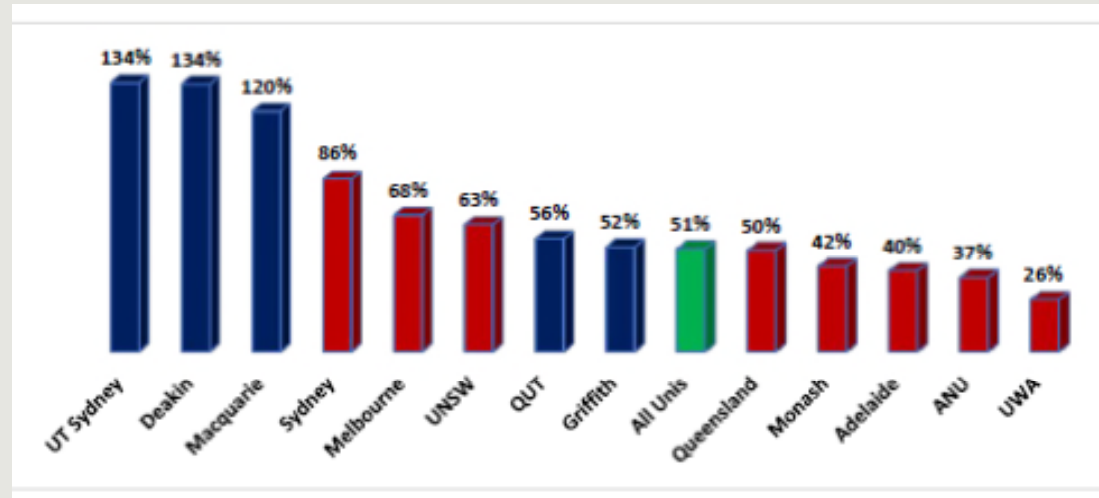


In 2020, Australian universities loss in income was \$1.8bn and in 2021, they are expected to lose a further \$2bn. They received \$1bn in government support for research as a one-off measure.

- As estimated in October 2020, among the research-intensive Group of Eight universities alone, over 10,000 researcher job losses were predicted.
- Of this 10,000 cohort, 4,000 of these researchers were fixed-term staff whose contracts were to end between 2020 and March 2021.
- At its COVID-response budget in November, the Government committed an additional, one-off \$1bn for research funding through the Research Support Program.
- However, there remains a significant shortfall in research funding, and sustainable alternatives need to be urgently developed if Australia is to sustain its world-leading research performance. This appears unlikely.

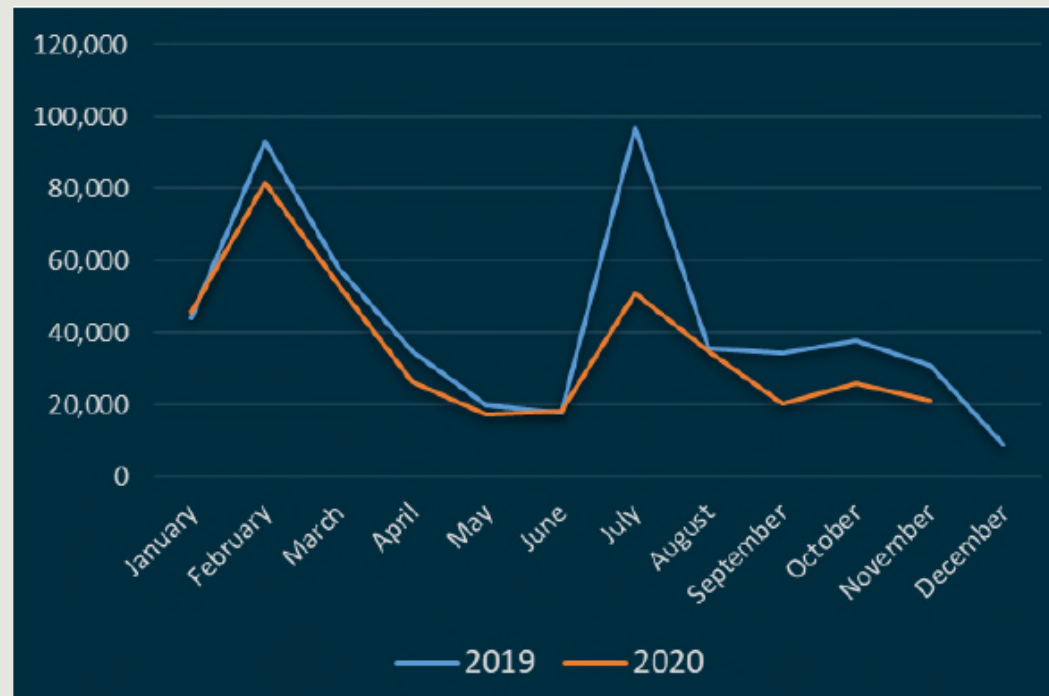
The discretionary income available to universities from international students will reduce from 51% to less than 30% of external funding. This is a unique concern for Australia.

- Analysis by Marshman and Larkins (2020) showed that universities spent \$12.2 billion on research in 2018, of which \$6bn was funded through discretionary income by universities.
- As a sector wide average, international student income contributed 51% of this discretionary income. ~\$3.1bn
- The loss of international student revenue is estimated to decline to less than 30% of discretionary income, which is **equivalent to a decrease of \$6.4 and \$7.6 billion from 2020-24.**
- This amounts to 11% of the research workforce.
- As compared with other science leaders, Australia is unique in that a **most significant component of its research capacity is funded through international student income.** In the absence of government and industry support, this is at peril.



While there has been a decline in commencing international students, China continues to represent a large share of the international student cohort.

- Commencements in the July-November 2020 period were 152,965, compared with 234,880 in the same period of 2019, a **decline of 35 per cent**.
- Of the 22 per cent (28,615) that could be confirmed as outside Australia, the majority were from China (22,468).
- Of the new commencements, the total was 25,184 and China again dominates with a 51 per cent share, followed by India (11 per cent), Nepal (4 per cent) and South Korea (2.5 per cent). Indonesia (2 per cent) rounds out the top 5.
- Australian universities have focused on the delivery of online education to engage international students. Where possible, universities have also prioritised pathway programs and using staging posts in offshore locations.



Meanwhile, the introduction of the Job Ready Bill has created new inequalities while redressing others. It further reduces the discretionary funding available for research.

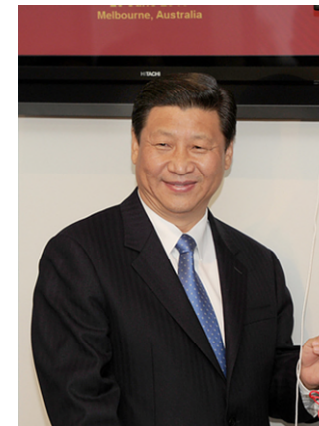
- In response to COVID-19 and given an expected rise in 18–24-year-olds, the Government is seeking to increase domestic student places by an additional 100,000 places by 2030 within a fixed funding envelope.
- This will be achieved by charging a much wider range of fees. Students will be “incentivised” to pursue courses in the “national interest” in areas such as STEM. On the other hand, some humanities courses have increased by 113 per cent and law and commerce units by 28 per cent.
- Overall, these reforms shift a greater burden of cost onto the student. The overall government contribution to higher education per student will reduce from 58 per cent to 52 per cent.
- This will disproportionately affect female students, those from Indigenous backgrounds as well as those from low socioeconomic contexts, who participate in large numbers in humanities and social science studies.
- Notwithstanding the significant deficiencies in this legislation, the Bill also aims to increase participation from students in regional and remote backgrounds through measures such as the Tertiary Access Payment (a new scholarship) and has created a new fund for industries and universities to work together on linkage projects.
- It is a significant reshaping of the domestic funding model with unclear and disjointed aims. It also reduces the cross-subsidisation capacity of universities to spend money on research.

Funding shortfalls and policy uncertainties are frustrated by recent geopolitical tensions, with ramifications for Australia universities' research autonomy.

- Despite some of the strictest guidelines and regulatory requirements surrounding international research collaborations, frosty Aus – China relations in the wake of the pandemic and fueled by certain sections of the Australian media, has led to several unhelpful interventions from Government on international research activity.
- This includes:
 - The introduction of the Foreign Relations Bill – *affording greater powers to Government to overturn research agreements.*
 - Protecting critical infrastructure and systems of national significance – *extending the reach of Government through the extension of the Security of Critical Infrastructure Act*
 - Parliamentary inquiry into national security risks affecting higher education and research
 - Adoption of the Model Code into Academic Freedom – *despite evidence of robust freedom of speech policies, protocols and the absence of evidence in relation to free-speech crisis.*
- The more curious challenge relates to university and researcher autonomy to engage in research collaborations free from government and media interference.

GUIDELINES TO COUNTER FOREIGN INTERFERENCE IN THE AUSTRALIAN UNIVERSITY SECTOR

University Foreign Interference Taskforce
November 2019



China's great science swindle

INVESTIGATION
SILVER SHARDON
KYLAR LOUGHRAN

DIGITAL EXTRAS

Overseas research owned by the state

Integrated Energy Storage Solutions

A photograph of three men in suits standing together. The man on the left is wearing glasses and a dark suit. The man in the middle is wearing a dark suit and a red tie. The man on the right is wearing a dark suit and a light blue shirt. They are standing in front of a white background with some text.

Sustained geopolitical tensions may deteriorate the strength of global research activity.

- While the Australian Government has embarked on its interventions with Australian universities and researchers, rhetoric from the Chinese Ministry of Education has also raised concerns.
- As recent as Feb 4 2021, the Chinese Ministry of Education reportedly told students to make a **“full risk assessment”** about studying in Australia. Reasons cited include reports of racism, anti-Chinese attacks and concerns about the coronavirus pandemic.
- These messages have been reinforced by the state owned Global Times, which has published a series of articles over 2020-21 portraying Australia in a negative light.
- Strained relations in international education must also be considered in light of other trade-based issues:
 - China announcing tariffs on Australian-grown barley
 - China suspending beef exports
 - China announcing an investigation to investigate allegations of Australia price dumping wine.
- Ongoing and escalating tensions may impact research activity negatively.

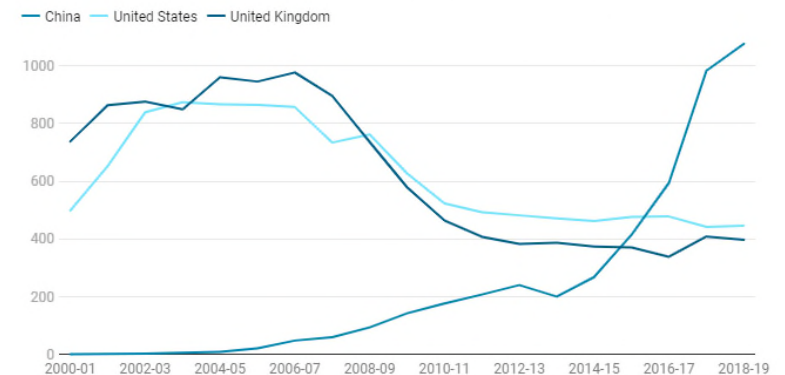
Experts call for education alert over Australia amid mounting racist attacks

By Xu Keyue

Published: Feb 04, 2021 10:10 PM

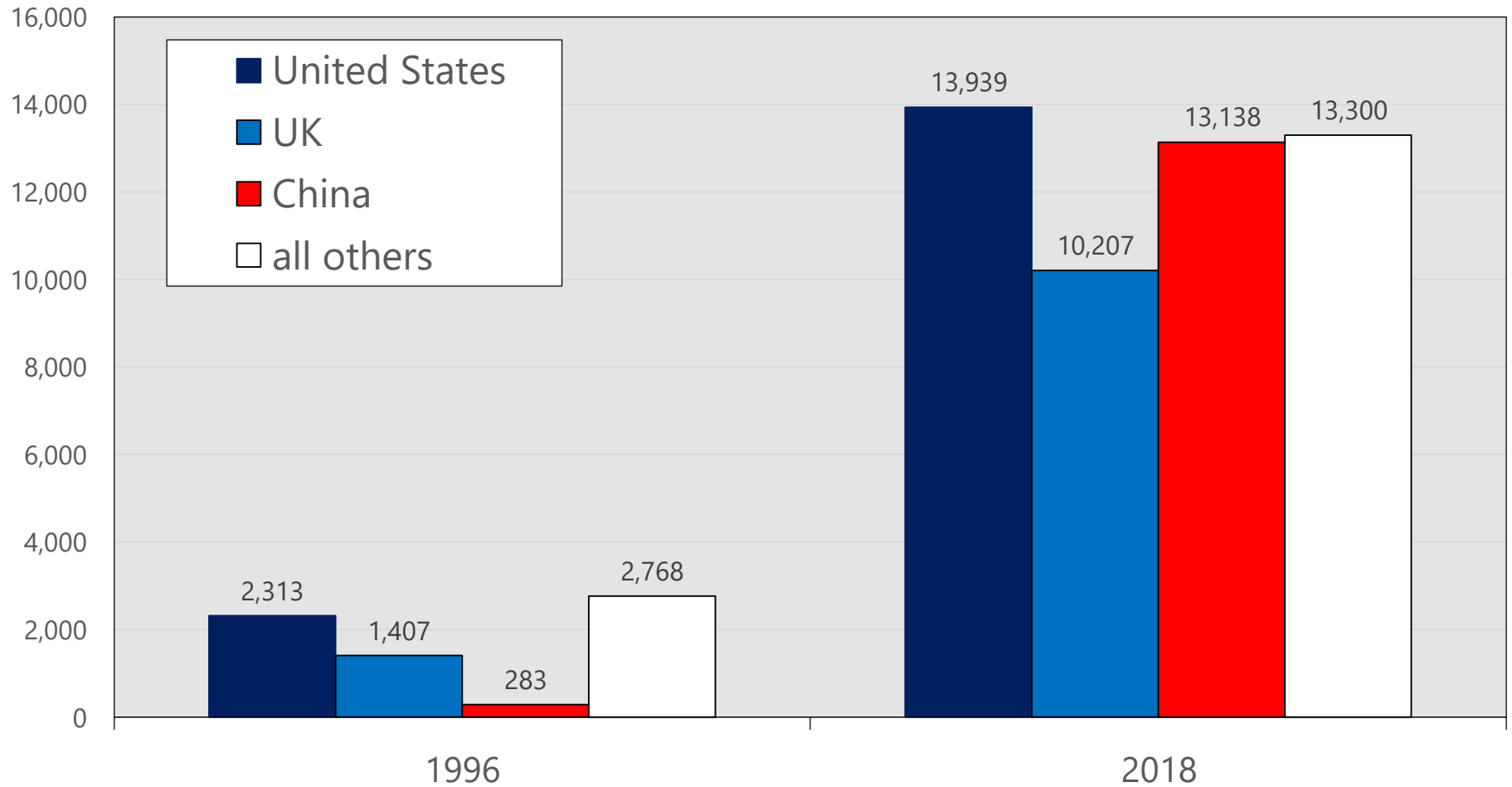


Value of Australian wine exports (\$m) in major markets



Source: ABARES • Get the data

Australian scientists' co-authored papers 1996 and 2018: (total 6771 in 1996, 50,584 in 2018)



References – can include up here