The future of higher education in Australia:

The economics of education

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Education investment is not high

	Public investment as % of GDP 2003	Private investment as % of GDP 2003	Total investment as % of GDP 2003
USA	5.4	2.1	7.5
Korea	4.6	2.9	7.5
Finland	6.0	0.1	6.1
UK	5.1	1.0	6.1
Canada	4.6	1.3	5.9
Australia	4.3	1.5	5.8
Germany	4.4	0.9	5.3
Netherlands	4.6	0.4	5.0
OECD average	*5.2*	*0.7*	*5.9*

Weakness in early learning

	% of GDP spent on pre-school education 2003	Enrolment rate of 3-4 year olds (% of population) 2004
France	0.7	100
Korea	0.2	94
Germany	0.5	77
UK	0.4	77
USA	0.4	53
Finland	0.4	42
Australia	0.1	42
Netherlands	0.4	37
OECD average	*0.5*	*66*

Too many drop outs

country	proportion (%) of 25-64 year olds reached degree programs 2004	proportion (%) of 15-19 year olds enrolled in education 2004
Korea	22	97
Canada	22	91
Finland	17	89
USA	30	87
Germany	15	85
Netherlands	27	80
Australia	22	77
UK	18	70
OECD average	*19*	*77*

Comparative standards: soft in the tail

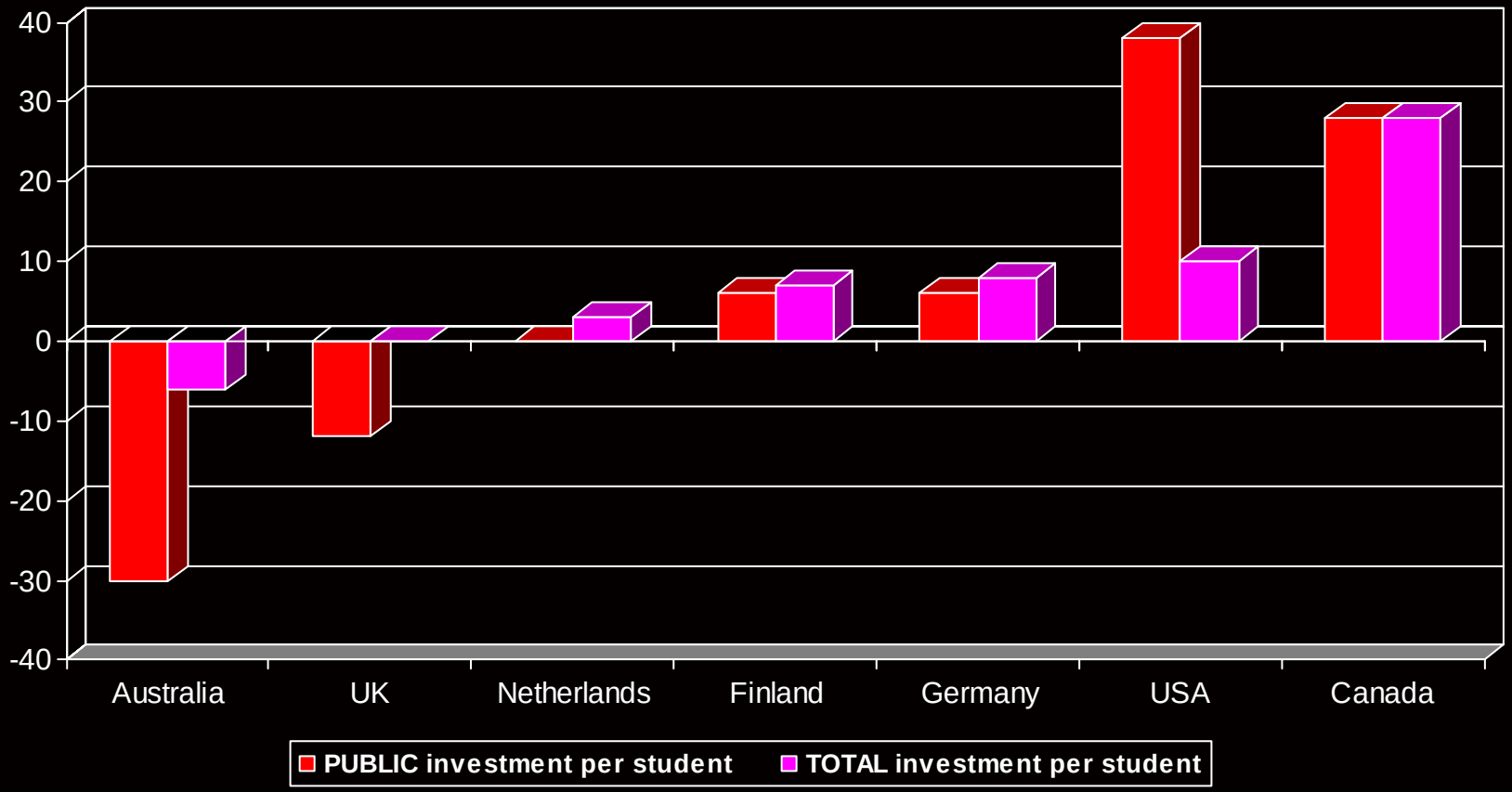
Mathematics achievement at age 15 years			
	Mean PISA score	**10th percentile**	**90th percentile**
Finland	544	438	652
Korea	542	423	659
Netherlands	538	415	657
Canada	533	419	644
Australia	524	399	645
France	511	389	628
Germany	503	363	632
USA	483	357	607
OECD average	*500*	*369*	*628*

Investment in tertiary education

	Public investment as % of GDP 2003	Private investment as % of GDP 2003	Total investment as % of GDP 2003
USA	1.2	1.6	2.9
Korea	0.6	2.0	2.6
Canada	1.3	1.0	2.4
Finland	1.7	0.1	1.8
Australia	0.8	0.8	1.5
Netherlands	1.1	0.3	1.3
Germany	1.0	0.1	1.1
UK	0.8	0.3	1.1
OECD average	*1.1*	*0.4*	*1.4*

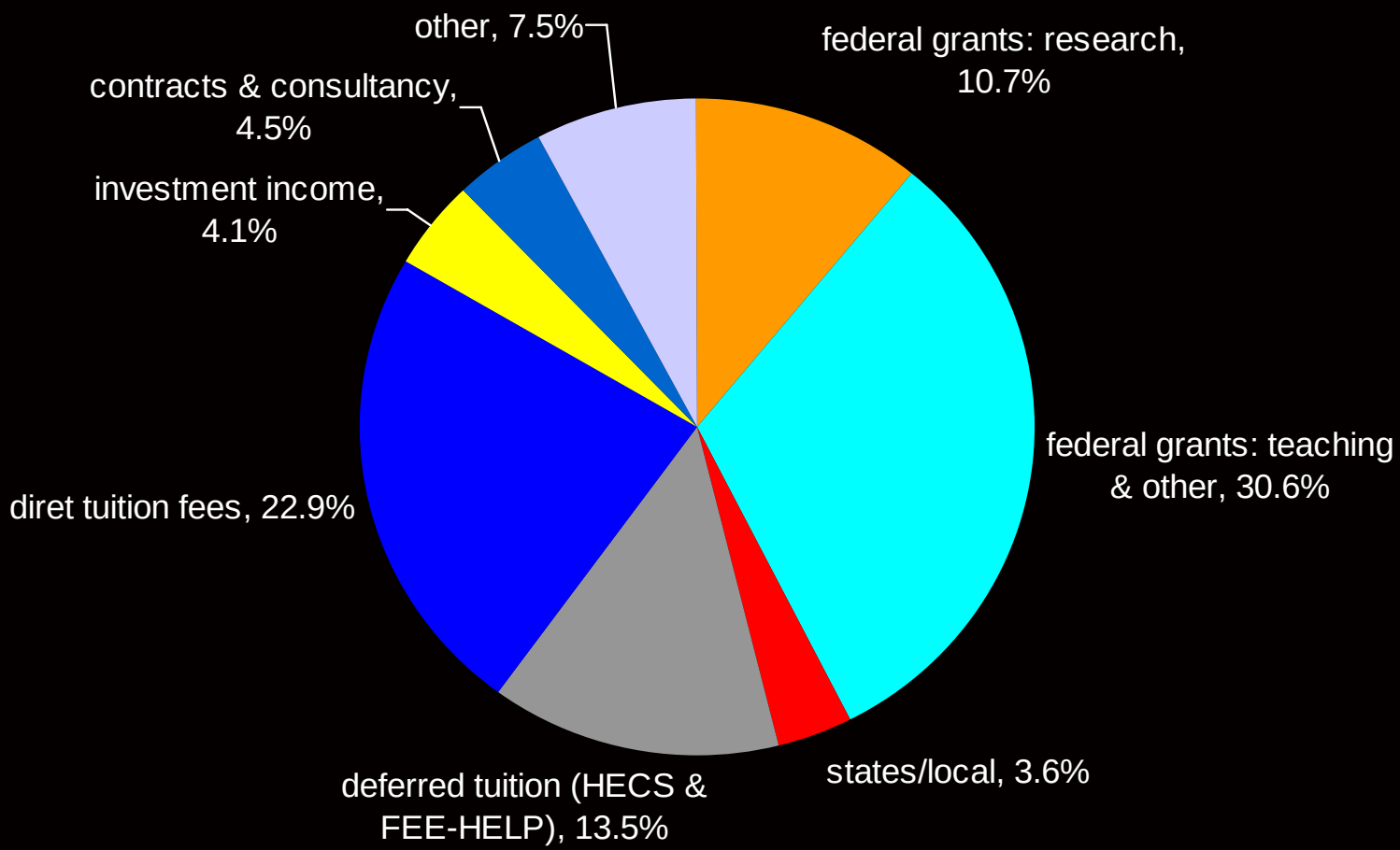
We lead the world in…

change in investment per tertiary student 1995-2003



Students fund the majority of teaching

Funding of higher education 2005



Student work cuts into study

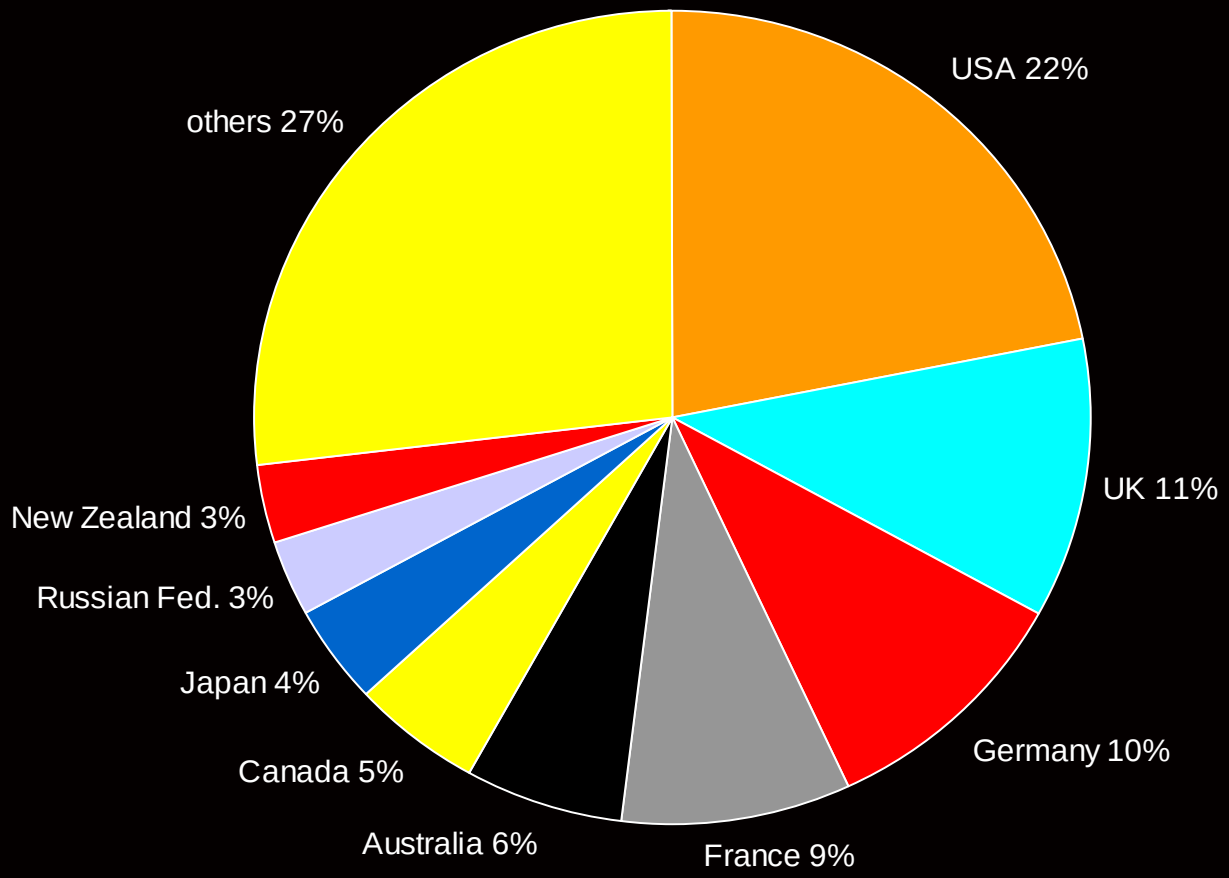
2006 AVCC survey of student finances

- Survey of 19,000 local students in all 37 public universities
- 71% of all full-time undergraduates worked during semester an average of 15 hours per week
- 40% of full-time students reported that paid work was having a detrimental effect on their studies with 22% regularly missing classes because of work commitments
- 13% regularly go without food or other necessities
- Between the 2000 and 2006 surveys, the proportion of full-time undergraduates receiving federal assistance payments dropped from 42% to 35%, earnings from work rose sharply, and the proportion of students taking out loans more than doubled

But education exports are booming

Distribution of education exports by exporting nation

In 2005-2006 Australian education exports generated $9.5 billion. Education was our fourth largest export sector after coal, iron ore and tourism



The tail is wagging the dog

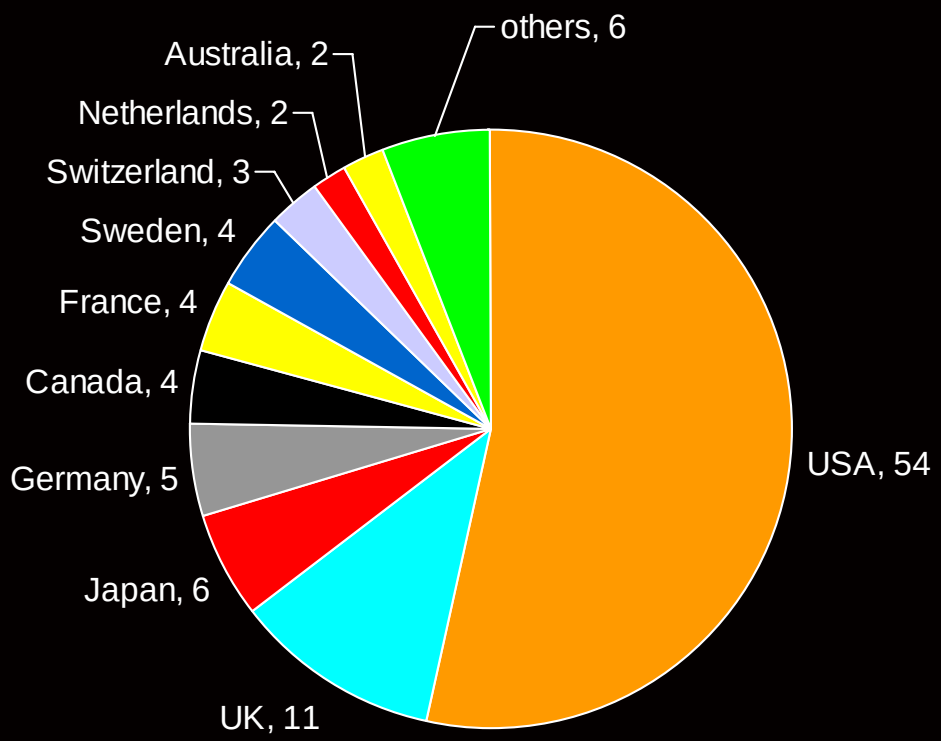
The largest exporters are locked into high dependency on foreign student fees. In all 15% of total university income is from this source.

Institution	International students 2005	International student fee revenues 2005 $s million	Proportion of total university revenues 2005
1 Monash U	17,168	174.3	19.0%
2 U Melbourne	8936	168.1	15.5%
3 U Sydney	9003	136.8	13.2%
4 Central Queensland U	13,837	132.1	45.7%
5 RMIT U	15,017	129.8	25.4%
6 U NSW	9481	124.7	16.1%
7 Curtin UT	16,092	108.2	24.5%
8 U Queensland	6330	104.1	12.0%
9 Macquarie U	9556	97.9	26.5%

We have few leading universities

The world's top 100 universities on the basis of research performance. Australia's universities in the top 100 are the Australian National U and the U of Melbourne. Data source: Shanghai Jiao Tong University Institute of Higher Education

Others: Italy, Israel, Denmark, Norway, Finland, Russia each 1.



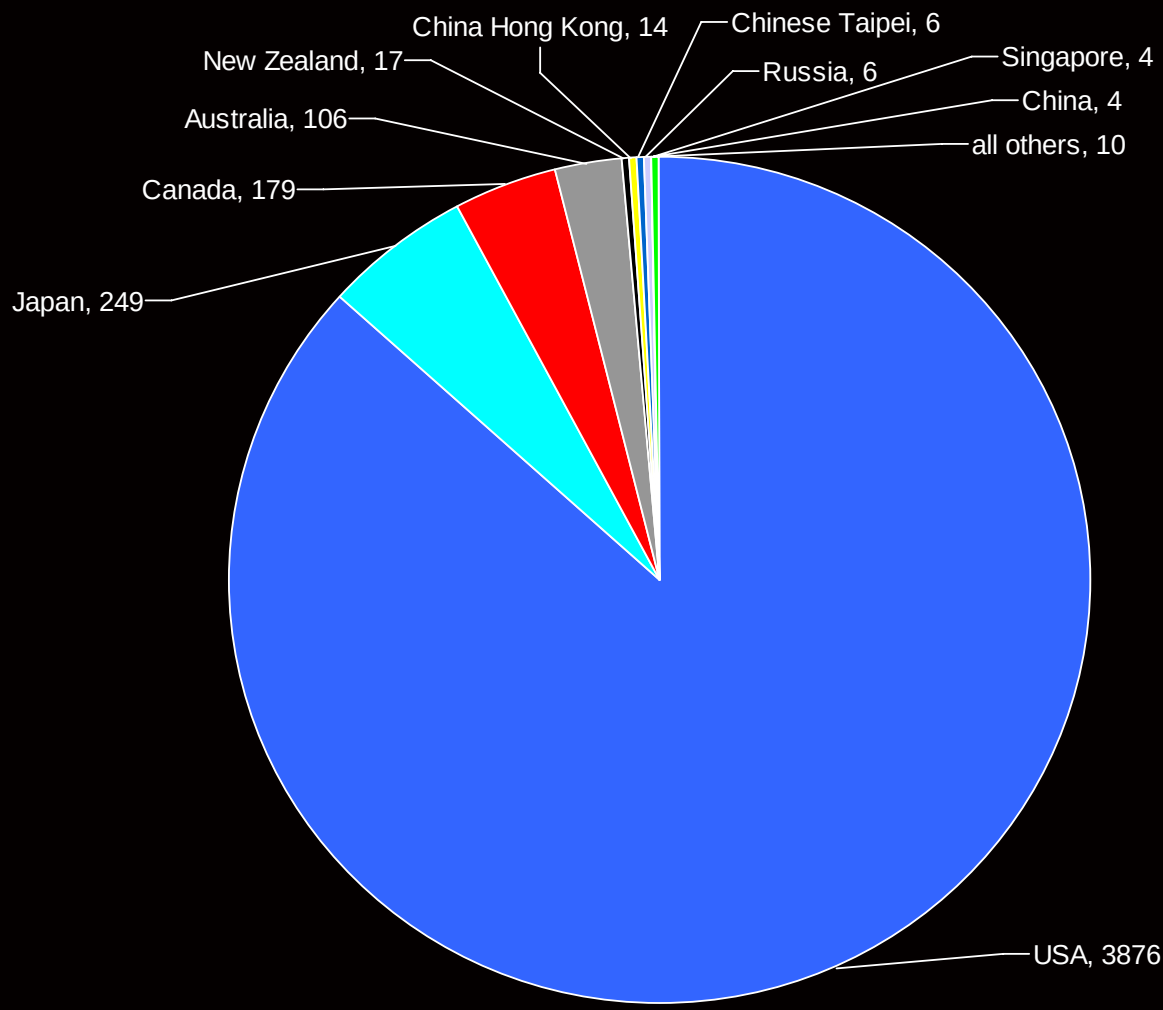
Where are all the HiCi researchers?

Researchers with citations in the top 250-300 in their field. Source: Thomson-ISI

USA	3876
UK	443
Japan	249
Germany	242
Canada	174
France	157
Australia	106

Switzerland	102
Netherlands	92
Italy	79
Sweden	58
China	*18*
India	*11*
Singapore	*4*

HiCi researchers in the Asia-Pacific



Rising Asia-Pacific science powers

Fastest growth in number of scientific papers 1988-2001 (Thomson-ISI data)9896

	number of scientific papers in: 1988	2001	multiplication factor 1988-2001 **(1988 = 1.0)**
Korea	771	11,037	14.3
Turkey	507	4098	8.1
Singapore	410	2603	6.3
Taiwan	1414	8082	5.7
Portugal	429	2142	5.0
China	4619	20,978	4.5
Brazil	1766	7205	4.1
Australia	9896	14,788	1.5

The federal/State relations shmozzle

	legal after HCA 2006	**public funding** states incl. territories	**policy leadership**	**policy issues**
Public early learning	states	states	isn't much	severe under funding, poor provision & quality
Private early learning	federal *was states*	mixed	isn't much	poor quality & inadequate regulation
Public schools	states	largely state	states	quality in poorer districts
Private schools	??? *was states*	largely federal	federal	inadequate regulation
TAFE	federal?? *was states*	primarily state	states	severe under funding, relevance, poor quality
Private training	federal *was states*	mixed	mixed	inadequate regulation including export quality
Universities and research	federal? *was states*	federal	federal	under funding, export quality under regulated
Private Higher Ed	federal? *was states*	federal	federal	Inadequate regulation including export quality

Thank you for the opportunity to speak with you

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