

Recent trends in Australian tertiary agricultural science education

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DISCOVERERS WELCOME

Australian Council of Deans of Agriculture (ACDA)



Drawn from 15 Australian universities that teach agriculture

Aims include:

- o Encouraging collaboration across universities
- o Increasing enrolments in agricultural courses
- o Lobbying and representation to Government and industry
- o Point of contact for interested parties (industry, media)

Today's menu...

Overview of recent trends in relation to Australian agriculture

Enrolments and employment

The innovation environment

Some approaches to integrating technology into agricultural courses



Recent trends



Australian economy has been dominated by mining

LNP Government White papers on agricultural competitiveness, northern development

Change in funding arrangements

Industry analysis that suggests resurgence



Trends affecting agriculture...

Increasing global demand for food

Increasing affluence and change in types of food and fibre

Changes in consumer sentiments

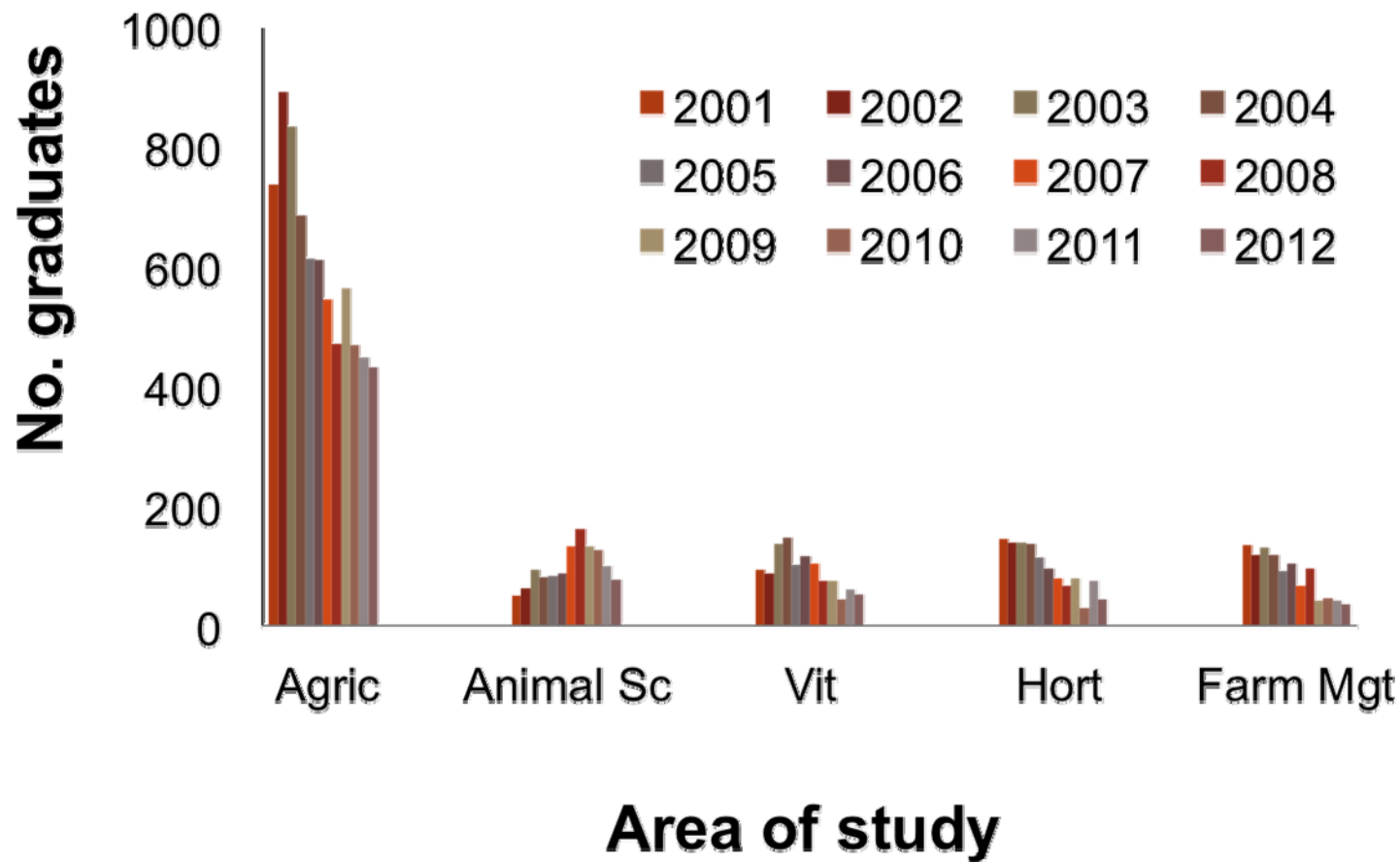
Transformative technologies

Globalization

Climate change



Numbers of tertiary agricultural graduates



Pratley (2012)

The trend may have been arrested...



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Ag graduates in short supply

Jenne Brammer
October 29, 2014, 12:38 pm

Share

An advertisement for wfi (Western Farmers' Insurance) featuring a landscape image of a farm and the text "wfi Protect your future Learn more".



OUR PICKS

Perth's cheapest fuel in 18 months



Chardonnay is WA's top drop



Rottneest victim fires up champion

<https://au.news.yahoo.com/thewest/countryman/finance-and-markets/a/25378875/ag-graduates-...>



University of Adelaide agriculture courses prove popular once a...

<http://www.abc.net.au/news/2015-02-12/rural-adelaide-universit...>

Rural

University of Adelaide agriculture courses prove popular once again as offers increase for 2015

ABC Rural Brooke Neindorf

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Posted Thu 12 Feb 2015, 10:28am

South Australia's University of Adelaide says there has been a rise in students enrolled in agricultural degrees this year.

The Bachelor of Agriculture Sciences course has seen an enrolment increase of 35 per cent, going from 40 students last year to 54 this year.

The Bachelor of Viticulture and Oenology course has increased its student uptake by 66 per cent, with 53 students this year compared to 32 in 2014.

University of Adelaide agriculture, food and wine head Mike Keller said the increase in enrolments comes after a tough drought period, where students left agriculture to go into the mining industry.

"The consequence of that is that we were not for many years producing enough graduates to fulfil the demand in employment," Mr Keller said.

"On students who go into agriculture today are going to be quite well"



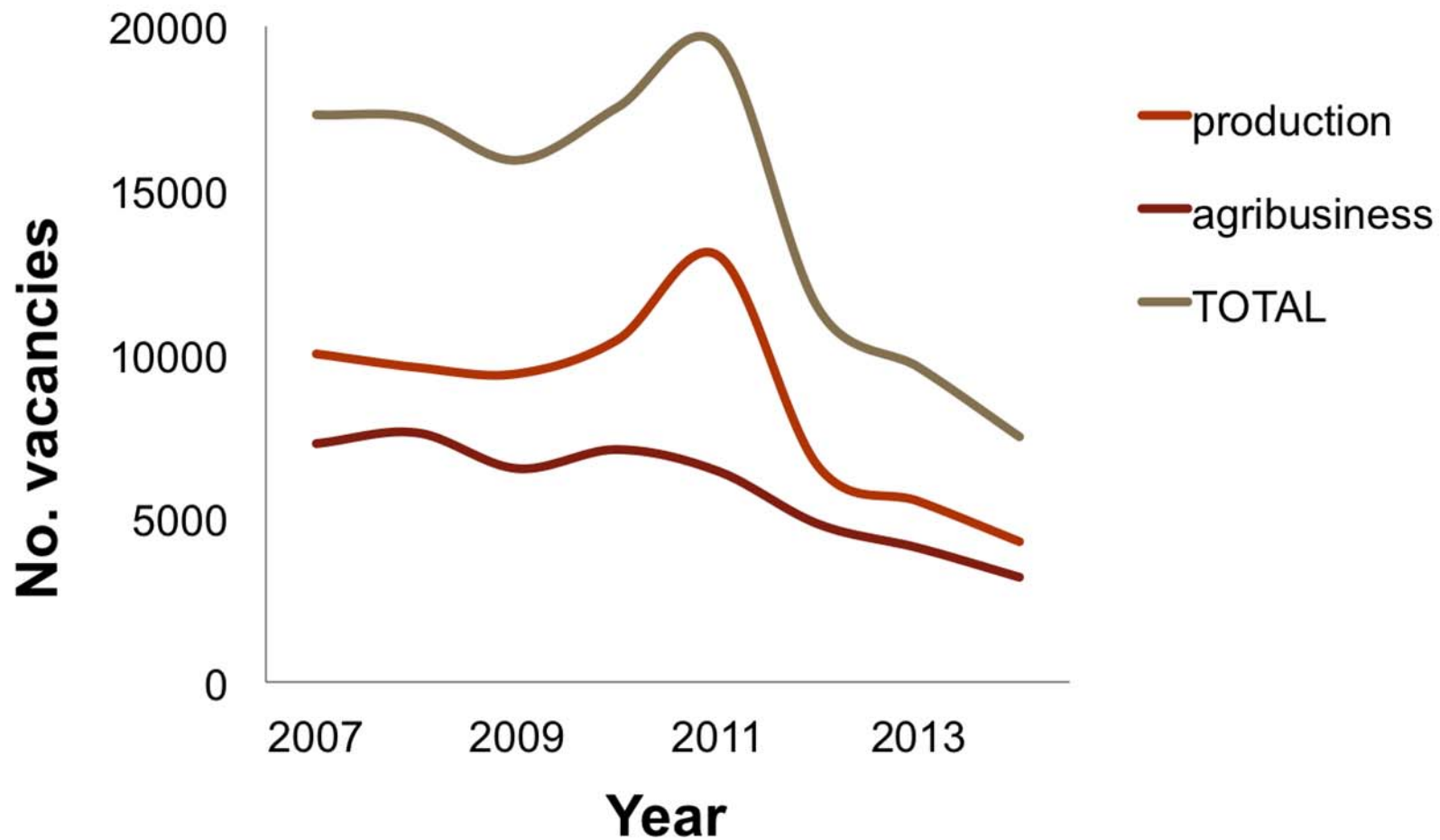
PHOTO: Adelaide University winemaking student Alyson Tannenbaum. (Laura Poole)

MAP: Port Lincoln 5606

Job market trends...



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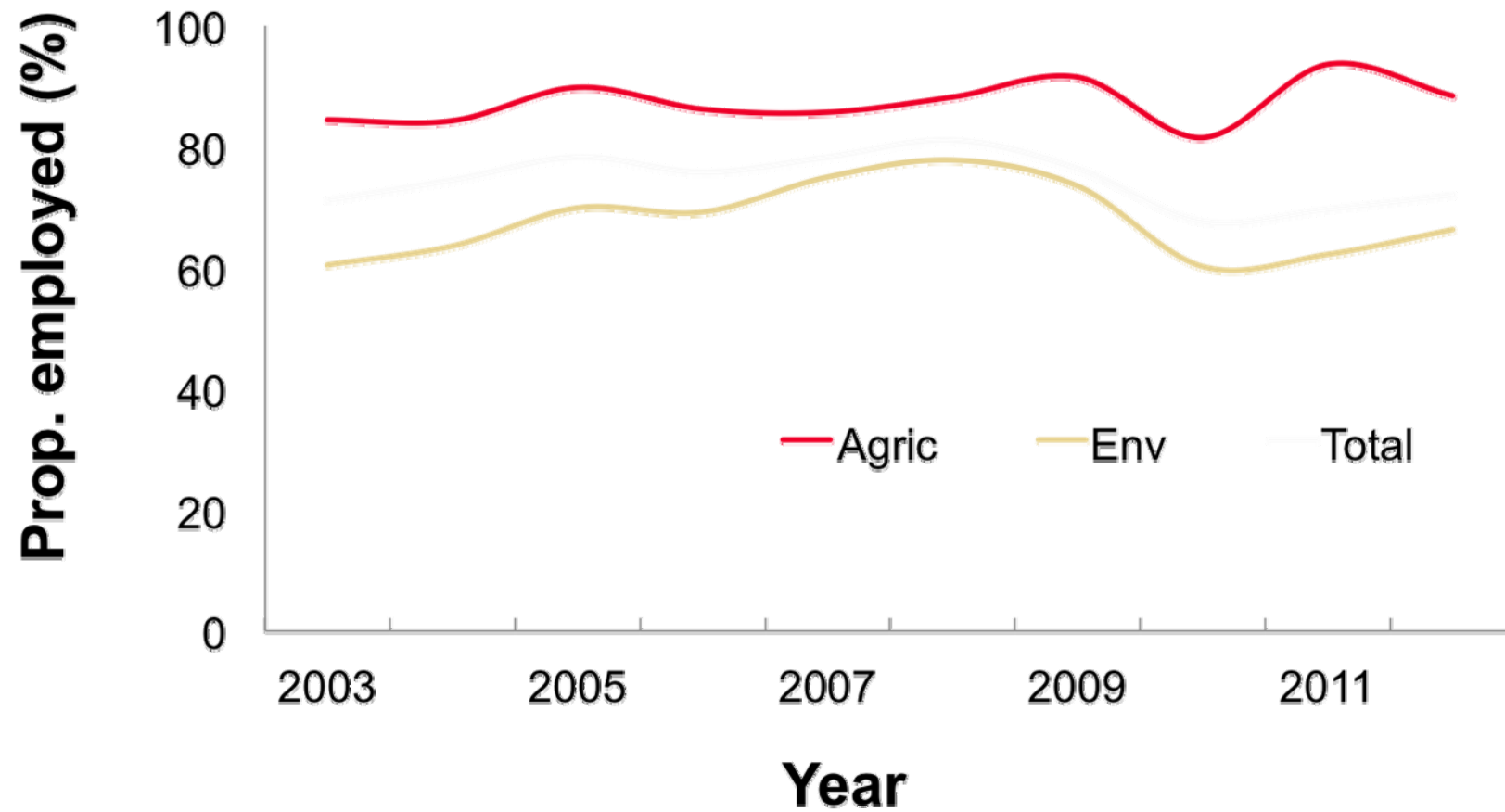
Pratley (2012)

A problem of coding and reporting...



Source	2001	2010	Decline (%)
Undergraduate (UG) completions (FoE 05) (2 digit code)	2991	2207	26
Undergraduate (UG) agriculture completions (6 digit code)	886	413	53

Graduate employment



Pratley (2015)

Ag grads start on lawyer salaries

ASHLEY WALMSLEY
29 Jun, 2015 04:00 AM



We need to remake our image, remake the image of our industries

University of Queensland dean of agriculture Professor Neal Menzies says agriculture needs to remake its image to attract tertiary students. Higher starting salaries could help this.

FROM

<http://www.theland.com.au/news/agriculture/agribusiness/gen>

But not everyone is convinced...



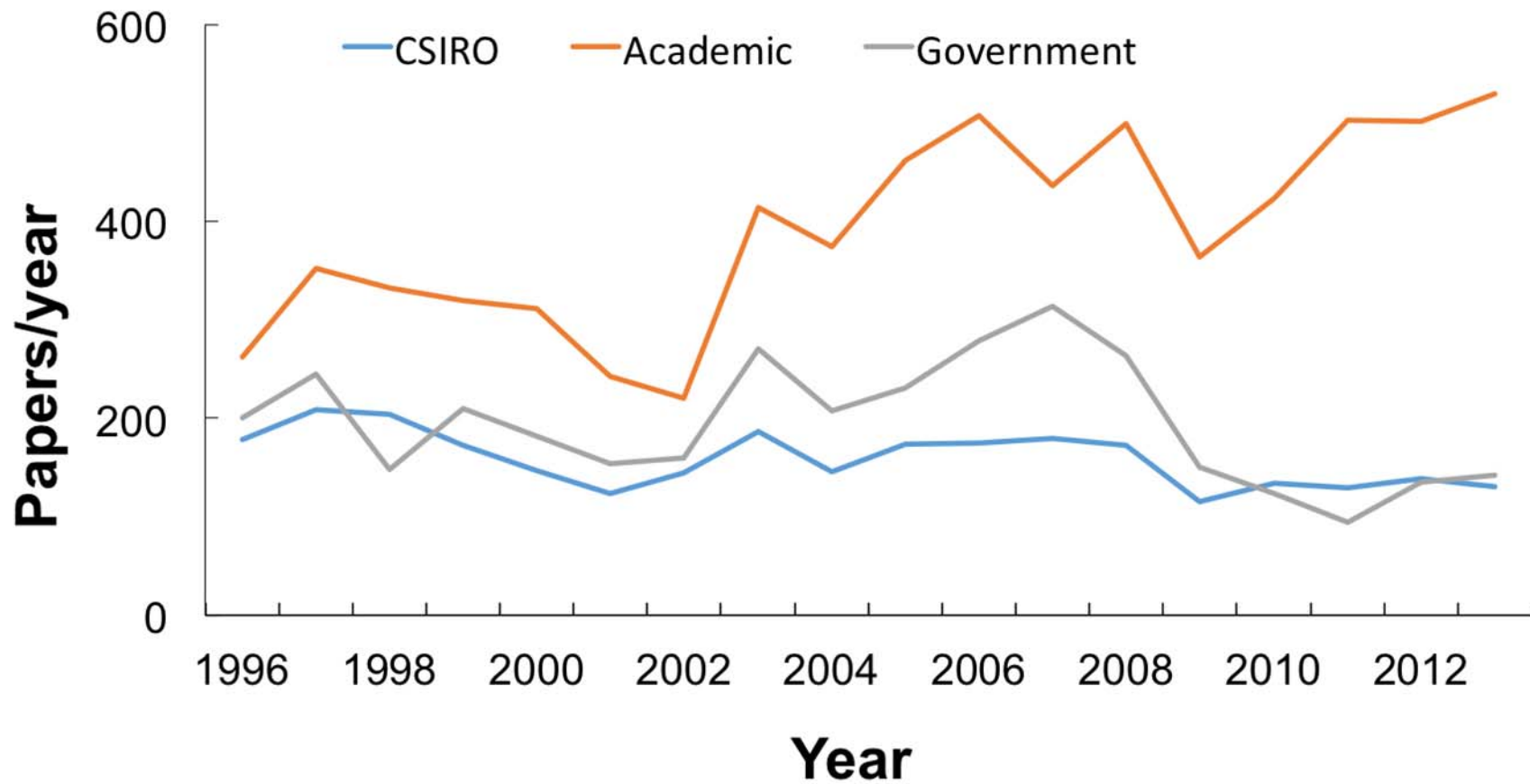
I've been reading this rather interesting statement about the annual differential of "less than 800 graduates for more than 4000 jobs" for four or five years now. Interestingly, its only ever uttered by people or organisations with a vested interest in talking up enrolments in tertiary ag education. If there was such a differential, surely then each weekly rural newspaper, or online employment service must be overloaded with tertiary qualified jobs in the ag sector. The reality however is vastly different!

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[Matt](#)

29/06/2015 11:37:12 AM

Contribution of universities is changing...



ACDA (unpublished)

Technology and agriculture



On-line delivery of material is ubiquitous; some universities concentrate on distance/external students

Academic staff are active researchers; thus students exposed to various technologies

New approaches to deliver material



Examples of technology



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4D Farms: University of Melbourne

www.youtube.com/watch?v=kw1SK4qTiR0

research.vet.unimelb.edu.au/cattleandsheep/4dfarm.html

Precision agriculture Research Group (U. New England)

www.une.edu.au/current-students/resources/academic-schools/school-of-science-and-technology/research/precision-agriculture/education-and-extension

Conclusions

Steady decline in agricultural enrolments appears to have been arrested

Apparent surplus of jobs vs graduates

Change in contribution of universities; new considerations

Increasing use of technology as a learning tool



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Effects of Forest Carbon Mitigation on Soil and Water

Guangzhou, China

October 18-20, 2015

**Part of IUFRO Task Force on Forests,
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