This latest issue is the usual fascinating potpourri of content that shows the diversity and quality of what we do and who we are, and especially the diversity of the issues confronting us.

Importantly our “Food for Thought” column takes another look at the problems created for our member universities by the recently released Household, Income and Labour Dynamics Survey in Australia.

Editor of Campus Morning Mail Stephen Matchett writes our “From the Outside Looking In” column, and delivers a really interesting perspective on deregulation as “the proxy to set the direction of Australian Government for a generation”. Essential reading.

As we near the end of a Canberra winter (hopefully) I find I am always surprised by the number of people who think that when Federal Parliament isn’t sitting for the long winter break, advocacy groups such as the Go8 move into semi-retirement mode, winter hibernation.

It never happens, trust me!

The Go8 has been concentrating on “what now”? What is Plan B when the deregulation legislation, as I write, looks - as it has done for many months now - totally dead in the Senate water. This of course leaves us limping forward with a broken funding model and significant, very real, future funding issues.

This Plan B work has been punctuated by a seemingly endless line of requests for Parliamentary submissions and a very enjoyable and productive, albeit too short, visit to Beijing. There the Go8’s Deans of Business brought together 80 of their successful Chinese alumni for a dinner attended by Australia’s Ambassador Ms Frances Adamson.
'After all, this coming election, when you cut to the chase, we all need to remember we have to deal with two major parties who have both seen fit to cut Higher Education funding

It is an appealing and positive prospect to consider. The interest of those schools in seeking us out, is also a reminder of why being able to claim high quality in our teaching and from our research cannot be compromised.
DESIGNER EUCALYPTS DESTINED FOR OVERSEAS MARKET

Beautiful flowering designer eucalypts produced in a University of Adelaide research program could be lining the streets of the US and Europe within a few years.

Based at the University’s Waite campus, the Ornamental Eucalypt Development Program (OEDP) has received $250,000 in funding from the Australian Government under its Entrepreneurs’ Programme, delivered by AusIndustry, and another $250,000 from four industry partners.

The funding will enable the Australian release of the first two selected eucalypts in 2016, continued monitoring of a trial in Spain and the establishment of four trial sites in the US, a key export market.

The researchers, led by University of Adelaide Post-doctoral Fellow Dr Kate Delaporte and Dr Justin Rigden, Commercial Development Manager, have developed a novel way of propagating new varieties of eucalypts from the OEDP that is fast, reliable and enables consistent production of plants with a particular flower colour, size and form.

“These are the first such hybrid ornamental eucalypt trees which can be propagated in this way by growing clones of the trees in tissue culture,” says Dr Rigden. “The use of tissue culture enables the rapid and reliable production of thousands of plants in a relatively short space of time. It also enables cost-effective shipping in large quantities from the sterile growth media.

“Ornamental eucalypt varieties currently on the market are produced through grafting which can be a less reliable and slower process, limiting the quality and production numbers within Australia and the potential for developing export markets because of quarantine restrictions on plant material which has grown in soil.”

The industry partners are Yuruga Nursery, Humphris Nursery, Australian Horticultural Services and, in the US, Ball Ornamentals.

The researchers say the eucalypts have great potential in the large markets of the US and Mediterranean Europe, as well as in southern Australia as street trees.

In addition to being very decorative (they have been selected for their attractive flowers, buds, leaves and plant habit), the eucalypts offer significant savings through reduced water use and lower maintenance requirements. In Australia they also act as important habitats for native birds and insects.

Established in 1996, the OEDP has been supported by AusIndustry, BioSA, Horticulture Innovation Australia, the Rural Industries Research and Development Corporation and the Playford Trust. Further information can be found at http://agwine.adelaide.edu.au/research/plant-physiology/horticulture/eucalypt/

The University’s commercialisation company, Adelaide Research & Innovation Pty Ltd (ARIL), is also supporting the commercial development of the OEDP. For more information, visit www.adelaideresearch.com.au.
THE EYES, IT SEEMS, HAVE IT

"The new theory is at odds with the dominant school of thought."

New thinking about how we perceive shapes, lines and movement suggests this information is first deciphered in the retina of the eye, rather than within the brain’s visual cortex as previously thought.

Learning more about the circuitry of the sensory systems is essential to making medical advancements in the treatment of conditions such as dyslexia and schizophrenia or even to develop the next generation of bionic eyes.

A new paper in Trends in Neurosciences, authored by University of Melbourne neuroscientist Professor Trichur Vidyasagar at the Department of Optometry and Vision Sciences and Professor Ulf Eysel from Ruhr-University-Bochum in Germany suggests we process orientation and movement of objects in the same way we process their colours.

The vast majority of information about the world around us is processed in the visual cortex of the brain, but it has long been known that colour is a different case.

Colour perception is initially processed in the eye itself by three types of receptors within the cone cells of the retina that are sensitive to blue, green and red.

Information sent from the cone cells is measured by the brain’s primary visual cortex as a ratio of the activity of the three cone types. Every perceived colour has thus, a unique ‘ratio’.

“Our sensory world of colour is first painted by only three primary pigments rather than drawn with hundreds of different coloured pencils, which is a very efficient way of processing” Prof. Vidyasagar explains.

“But we have found that the way colour is processed may not be unique to colour perception, but may also apply to perception of most sensory stimuli.

“When we observe that the orientation of a line or an edge is vertical, horizontal or oblique, or that one object is larger or darker than another, or how fast an object is moving, our nervous system uses the same simplifying and combining principles as it does when perceiving colours.

“The mechanisms for registering, for example, a line’s orientation, are already in the retina in a coarse form. And just like colour, the visual cortex is only required to sharpen these signals.”

The new theory is at odds with the dominant school of thought that sensitivity to lines and edges is first developed only in the brain’s cortex.
FOOD FOR THOUGHT

Thoughts on the HILDA survey

By Dave Kennedy PhD

The curse of HILDA - no benefit in pay for some sandstone uni graduates who are not self-employed, with apologies to all self-employed uni graduates, with further apologies to all readers due to omitted variable bias, which is likely to result in biased parameter estimates!

It is with a degree of amusement that I read (yet again) how students apparently receive no earnings advantage in graduating from a sandstone university compared with other universities (’No benefit in pay’ for sandstone uni graduates, SMH, 16 July 2015, p. 3).

There I was thinking this and other related human capital “questions” had been settled some time ago. With empirical evidence spanning multiple countries no less...

Is it any surprise that a number of folks have taken umbrage with the fact that the dependent variable [DV] in the HILDA Survey (weekly earnings) omits all Australians who are self-employed - yielding a very partial DV.

Really? Given that the self-employed make up a mere 14 – 15% of the employed, why quibble? Instead, and for the sake of accuracy, this could be easily rectified by simply changing the headline to “No benefit in pay’ for sandstone uni graduates who are not self-employed, with apologies to general practitioners, dentists, solicitors, engineers, architects, investment bankers, consultants, etc.”

Of course, others may take exception to the fact that some of the sandstone universities apparently did enjoy a sandstone pay premium (you have got to love footnotes) But this can be easy fixed too: “No benefit in pay for some sandstone uni graduates who are not self-employed, with apologies to...”

As to the nit pickers who may be concerned about the omission of a number of relevant niceties that a number of academicians like to peruse just for the fun of it (things like a correlation matrix, reliability evidence of the measures, validity evidence of the measures, etc.), they should just chill. These niceties are reserved solely for peer-reviewed scientific journal publications. Correct? Good point. But what about placing this information in the appendix? The alternative is “just take our word for it”.

To put it another way, why take the long-winded chief medical examiner approach (think “Ducky” on NCIS) and list ALL of the things that ailed this dead subject.

Rather, let’s advocate Special Agent Leroy Jethro Gibbs’ approach and cut to the chase, or the #1 reason why this subject is well and truly deceased – omitted variables.

Remember omitted variable bias? Most social science methodologists will tell you (because they were once taught so) that if you omit one or more [in this case, sadly, many more] relevant...
explanatory variables, you will inevitably get biased (as in seriously biased) parameter estimates. Which in turns renders all of the statistical findings meaningless.

But, wait, you say! The HILDA Survey results could not include all of the relevant explanatory variables because they did not collect respondent information on all relevant explanatory variables. And you would be correct. It appears that they didn’t. Such is the challenge of attempting to fashion a comprehensive explanatory model from a data set generated to serve a different purpose.

But what about the argument that “this is an econometric analysis” conducted by econometricians, not by career success researchers (organisational psychologists etc).

Again I believe you would be correct. Could it be that the analyst who authored this section of the Report was not a career success researcher and didn’t even realise that s/he omitted a number of variables generally accepted in the empirical literature to predict annual pay? Variables like educational degree quality, educational degree prestige, educational degree type, a whole host of personality variables, etc.

Now, let me be clear – I have the deepest respect for the HILDA Survey and all that it entails. It has many aspects to applaud. But really, did the academy need this self-inflicted pain? Should the universities have to wear it?

On behalf of all Australian university students, alumni, academics and support staff, and all self-respecting users of statistics, I extend my condolences. The truth (and I still don’t know what it is) was clearly murdered and buried that day and this tragedy could have been averted.

But I am not sure that the analyst is all at fault. Students learn what they are taught...

“It is with a degree of amusement that I read (yet again) how students apparently receive no earnings advantage in graduating from a sandstone university”

Dave Kennedy is head of igeonepercent.org, a not for profit initiative that advocates philanthropic giving at all levels of society. He has an MBA and MSc(Massachusetts) as well as an MPS and a PhD(Cornell). At one point in his career he was an Associate Professor at the University of Sydney.
FROM THE OUTSIDE LOOKING IN

Chasing the deregulatory rabbit
Stephen Matchett

“And while Australians have embraced the market economy many, my guess is a big majority, have never accepted it could apply in health and education.”

Deregulation – a proxy for a struggle to set the direction of Australian Government for a generation

Christopher Pyne may yet pull a deregulatory rabbit out of a Senatorial hat but, if he doesn’t, the debate over a competitive market in undergraduate education isn’t necessarily over. As education elder Kwong Lee Dow predicted last year, if it is to happen, deregulation will likely take a few goes.

But Professor Lee Dow will only be right if advocates of reform study the communications craft of Professor Ian Chubb, our soon to retire Chief Scientist.

For the moment the numbers are against advocates of reform. They face a grand coalition of the education unions, the Greens, Senate cross-benchers plus the Labor Left, and probably a majority of university staff, who implacably oppose more of a market in all forms of post school study.

And the supporters of higher education

as a core government function have the public’s ear.

This has the makings of a very big blue indeed, a fight for far more than the price undergraduates pay for a place. Education, and training – do not ignore, as university policy makers generally do, training – have become a proxy for a struggle to set the direction of Australian government for a generation.

Minister Pyne’s plan was, in Paul Kelly’s famous phrase, to end the certainty of government control. The Pyne proposal is, in many ways, the latest of the long line of deregulatory reforms beginning in the 80s. From the floating of the dollar through ending state control of everything from dairy farming to rationed home loans, there are many precedents for getting government out of education.

However the Minister’s opponents are part of a much older Australian tradition, the all-providing state which sets the price and regulates availability of public services. And while Australians have embraced the market
Economy many, my guess is a big majority, have never accepted it could apply in health and education.

Perhaps this is why Mr Pyne tried to carry the unified national system, also known as Fortress Dawkins by coup de main, before the supporters of the price-regulated system noticed that the walls of public money were breached.

If he had pulled it off, the Minister would be hailed as a political genius now – with opeds about the way he had rejuvenated reform and created a free market in education by ending the assumption that all universities are equally excellent, just in different ways.

But the state of the Senate and the way the electorate heeded warnings of “American-style $100,000 degrees” made it a drawbridge too far.

And for now the fortress is supremely secure.

Just as many, many Australians who pay for private health insurance, and visit GPs who charge what the market will bear, hate the idea of increasing Medicare costs, so they are immensely uncomfortable with the prospect of young people graduating with big study debts.

And most Australians’ knowledge of for-profit training comes from accurate media stories about the badly designed deregulation of training allowing shonks and spivs to enrol people in private provider courses that they lacked the ability to complete, or capacity to pay for.

In combination, warnings of high costs and low quality have drowned out the case for change among voters who worry about their children’s future. (That the $100,000 campaign has not cut through with students has more to do with youthful optimism about their future earnings than any belief in the market.)

And so advocates of reform face the brutal truth the Minister hoped to rebut. While good policy is always good politics, in the end it takes less ages than aeons of time, as measured by political lifecycles that run Sunrise to Lateline, to get from one to the other.

This is not to dismiss the extraordinary service of the policy shapers and debaters who have made the case for reform in the press and to parliament for years – they just have to keep it up.

Perhaps a change of emphasis might be in order, less about how hard universities are doing it now, and more about the amazing things they will accomplish for all Australians if given a financial chance.

But overall the challenge is to keep making the case for change. The need to reform higher education is a textbook example of the first law of political communication: that when you have made a case so often that prospect of another speech makes you physically ill, the mass of people whose support you need are just starting to hear the argument.

And if anybody is interested in inspiration for the task they should look to Chief Scientist Ian Chubb. The way Professor Chubb has hammered away at the importance of STEM education and made the case for the Government’s applied research agenda is a model of art.

He has given interviews, delivered speeches and written papers to make the Government’s case that Australia must focus research funding on specific areas of strength and that university and industry must work together much more closely.

Where there are criticisms it is mainly muted. This is because of the reasoned and respectful, consistent and insistent way the Chief Scientist has made the case.

Granted, not all Senators are as engaged in the student funding debate as research DVCs are in research impact metrics, but the principle remains the same – make the case in terms that are important to the audience and keep making it, for as long as it takes.

The bad news is that there are ample signs that funding reform that sets up a sustainable basis for research without universities ransacking funding for undergraduate places will take an indeterminate time to explain.

The good news is that astute opponents of deregulation, such as Nick Xenophon, acknowledge that the existing system is unsustainable. With the need established it is merely a matter of time to find and explain a financially feasible, educationally desirable and politically palatable solution. Probably quite a lot of time.
VC VIEWS

The issue of adequately funded research

Professor Ian Young
AUSTRALIAN NATIONAL UNIVERSITY VICE CHANCELLOR

“A core element of the present review of research funding is a focus on how to better encourage collaboration between universities and industry. I believe we would all support such enhanced activity as an important element in building a robust Australian economy. In doing so, however, it is important to remember that high-level applied research is underpinned by world-class basic research. Major industrialized nations such as the United States and Germany have built major high-technology industries. These industries have been underpinned by some of the world’s best universities funded to carry out world class basic research. These nations also tend to concentrate their research spend to support demonstrably high quality research and to build critical mass. As the government reviews our research funding system it will be critical that we support basic research at an appropriate level and that we get greater research concentration than at present. This will be critical in building the high-technology industries of the future for Australia.”

Professor Paul Johnson
UNIVERSITY OF WESTERN AUSTRALIA VICE CHANCELLOR

“When research is not adequately funded, it has to be cross-subsidised by other income-generating activities. Every grant that we win, every fellowship that we host, and every major piece of research infrastructure that we run, has to be cross-subsidised by income generated from students, mostly undergraduates. Ideally students should be taught in a research-rich environment by active researchers. Failure to adequately fund research means that teaching investment is cut and these students are often taught by sessional staff or other students, driving an ever-increasing gap between the creation of new knowledge and the transmission of this knowledge to the next generation.”

Professor Peter Høj
UNIVERSITY OF QUEENSLAND VICE CHANCELLOR

“Now is the time to restart the university funding debate with a new perspective. We need to abandon the mirage that research funding can be fixed through the prism of student fees. Governments that eschew purposeful research funding strategies are governments that load students at research-intensive universities with an unfair share of what ought to be a national investment.”

“A sound research funding stream for our universities is crucial for social progress and economic prosperity. Our leading research focused universities generate new ideas and discoveries which directly drive the innovation pipeline, leading to economic benefit, whilst also attracting many thousands of overseas students to Australia’s...”
international education offering, which is a major contributor to economic prosperity.

Further pressure on research funding could damage the research base, cutting off the pipeline of discovery which is so crucial for translation to impact and economic benefit, harm our international reputation and lead to a reduction in overseas students, with serious consequences for the national economy.”

Dr Michael Spence
UNIVERSITY OF SYDNEY
VICE CHANCELLOR

“Right now at the University of Sydney we have researchers working on challenges ranging from the development of anxiety in children with asthma to how we might one day be able to predict and prevent genocide.

We all know that Australia’s future is about innovation. What many don’t know is that universities lose money with every research grant we get because nowhere near the real costs are covered.

We believe game-changing discoveries and inventions depend on bringing the right people together in an environment that gives them room to innovate and universities provide this environment better than any other.”

Professor Margaret Gardner
MONASH UNIVERSITY
PRESIDENT AND VICE CHANCELLOR

A great government is one that lays the foundation for the long-term wealth and happiness of the society it represents.

In an increasingly complex, mobile and urbanised society in a globalised and volatile economy in a fragile environment, we need significant government investment in research.

We need this investment to meet the demands of our economy and society, to fuel our innovation system and add to our graduate’s capabilities to build new futures.

To succumb to the short term cut over the long term good pretends the world will stand still and wait for us. It won’t.

Professor Ian Jacobs
UNSW
VICE CHANCELLOR

“Support for basic research is essential to build the skills and platforms for applied translational work. We need both.”

Professor Glyn Davis
UNIVERSITY OF MELBOURNE
VICE CHANCELLOR

“Key research priority now is better partnerships with industry in research with commercialisable outcomes. Universities are sensitised to this, but the tax environment for R&D in Australia needs change if more businesses are to be brought to the table.”

Professor Warren Bebbington
UNIVERSITY OF ADELAIDE VICE CHANCELLOR

“A key research priority now is better partnerships with industry in research with commercialisable outcomes. Universities are sensitised to this, but the tax environment for R&D in Australia needs change if more businesses are to be brought to the table.”
UNSW JOINS FUTURELEARN MOOC PLATFORM

UNSW has become FutureLearn’s newest member in the Asia-Pacific and one of five new global partners of the leading massive open online courses (MOOC) social learning platform.

FutureLearn joins Coursera and OpenLearning as the University’s MOOC partners.

UNSW’s first FutureLearn course, ‘Maths for Humans: Linear, Quadratic & Inverse Relations’, is now available now for registration to commence in October 2015. Upcoming free courses include WWI: Lessons and Legacy of the Great War, Environmental Humanities: Remaking Nature and Military Ethics: An Introduction.

Professor Iain Martin, Deputy Vice-Chancellor (Academic), said: “We are delighted to be partnering with FutureLearn in the provision of MOOCs on their highly adaptable and innovative platform. The opportunity this provides not only extends the reach of UNSW globally, but will also spin back real benefits to our existing students and links strongly to the University’s developing strategic plan.”

The FutureLearn course experience centres on social interaction, whereby people learn by engaging in conversations around the learning material. FutureLearn is wholly owned by The Open University (UK), which has over 40 years of expertise in distance and online learning. Close to two million learners from more than 190 countries have registered since the first courses began in October 2013, generating almost four million course registrations.