The motivations, values and future plans of Australian academics

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Published online: 13 July 2012 © Springer Science+Business Media B.V. 2012

Abstract The Australian academic profession is more differentiated than is acknowledged in national and institutional policies and academic roles are more diverse than many academics themselves may recognise. However, the evolution of the nature and purposes of the profession and its implicit diversification have been incremental and largely unplanned. A consequence of this piecemeal approach is the attitudes and pressures on academic staff uncovered by this study, including a widespread intent to leave the Australian higher education sector for other work, or work in overseas universities. The study is based on a large-scale survey of over 5,500 academics across 19 Australian universities, and explores the attitudes, motivators and career plans of the present academic workforce in Australia.

Keywords Academic workforce · Work conditions · Sectoral planning

Introduction

In Australian higher education, diversification of institutional missions, an aging academic workforce, cost pressures, and greater numbers of students from educationally disadvantaged backgrounds have led to a fracturing of the traditional work roles of the academic. Increased casualisation is perhaps the most obvious example of how a relatively homogenous profession has become more diverse. Yet increased casualisation is just one example of recent changes in professional practice. Other shifts at the institutional level include a growing divergence in the level of academic positions, policy drivers that reward applied over pure research, and a focus on university education as a practical preparation for the workforce. The outcome of these profound shifts in higher education has been the end of the 'traditional' norm of an academic work life comprised of scholarly research, research informed teaching, and contribution to the university through participation in management.

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There is no doubt that this norm has long been outmoded, yet our conceptions of the structure of academic work have not shifted to meet new realities.

This paper reports the findings of a large-scale survey of Australian academics, documenting their current work roles, attitudes and career objectives. The paper discusses the most novel and important of the project's findings, including that, on top of expected retirements, about one quarter of the academic workforce intend to move out of Australian higher education during the next 10 years; an intention most frequently expressed by younger academics and strongly correlated with concerns about job security. A widespread dissatisfaction with the management and funding of higher education indicates a malaise within the profession—however this is offset, to some extent, by an almost unanimous passion for the scholarly aspects of academic work.

Review of the literature and trends in the national statistics

The Australian government collects a range of statistical data about university staff (both academic and professional). Here we discuss trends revealed in these national statistics, with reference to the broader literature on the Australian academic workforce.

Casualisation of academic labour

Perhaps the most significant change in the Australian academic workforce over the past 20 years has been the increase in the amount of teaching work undertaken by sessional staff. During the 1990s, the proportion of academic staffing with a teaching component which was sessional more than doubled, from 10 % of full-time equivalent (FTE) staff load to just over 21 % (DEEWR selected statistics, various years). Yet these shifts in the composition of FTE staff load paint only part of the picture. Estimating the number of casual staff in Australian universities, in terms of individual people, is notoriously difficult as universities report casual staffing levels to DEEWR in FTE only, and even these are based on estimates. Junor (2004) and more recently Coates and Goedegebuure (2010) have estimated that around 40 % of Australian academic staff are casual employees. This compares to an average of around 25 % in the overall Australian workforce (Junor 2004; Australian Bureau of Statistics (ABS) 2009). However, new research using the superannuation records of university staff indicates that there are currently around 67,000 academics employed on a casual basis, comprising 60 % of the academic workforce (May 2011, forthcoming).

The demographic gap in the academic profession

The expected increase in student participation will occur at a time when the demographic bulge of academics who entered the profession in the 1970 s reaches retirement age, a problem that has been well documented (Hugo and Morriss 2010; Hugo 2005a, b, c, 2008; Skills Australia 2010; Edwards 2010; Edwards and Smith 2008, 2010; Coates et al. 2009; Hughes and Rubenstien 2006). The Group of Eight (the organisation that represents Australia's eight leading research universities) estimates that a further 16,400 staff will be needed to replace those who will retire over the next 20 years, on top of those required for increased student participation. This means that in total over 40,000 extra staff is required by 2030 (Group of Eight 2010). Australia is not alone in facing the challenges posed by an ageing academic workforce. Similar patterns in the age profile of the academic workforce

Changes in the age profile of the (Full Time and Fractional Full Time) Australian academic workforce are presented in Fig. 1, which shows the shift of the 40–50 year old age group into the 50+ range over the 2000–2008 period, while the percentage contribution of the younger age groups has remained stable.

The concentration of older age groups in the academic workforce evident in Fig. 1 has also led to imbalances in the strata of professional classifications within the sector. As older workers are more likely to hold higher level positions, the classification levels of D (Associate Professor) and E (Professor), located above Senior Lecturer or Level C, are the only classification group to have increased their percentage share within the workforce over the period from 1996; moving from having the smallest percentage share of the four classification levels, to the second highest over that period (Fig. 2).

These trends in employment conditions have occurred as a response to the well documented increases in student participation which have taken place since the 1970s. The *Review of the National Innovation System* (Cutler 2008), the *Review of Higher Education* (Bradley et al. 2008), and the *Inquiry into Research Training and Research Workforce issues in Australian Universities / Building Australia's Research Capacity* undertaken by the House of Representatives Standing Committee on Industry, Science and Innovation (Parliament of the Commonwealth of Australia 2008) all point toward further increases in participation in coming years, particularly by students from educationally disadvantaged backgrounds. The Group of Eight (2010) has calculated that, assuming no change in staff/ student ratios and casual/non-casual ratios over the next 20 years, an additional 26,600 full-time teaching staff will be required to meet growth in participation.

Studies of academic work roles

In Australia there have been a number of survey-based research projects looking at the work roles of academics (McInnis (CSHE) 1999; Anderson et al. 2002; Winefield et al. 2003; Winefield et al. 2008; Coates et al. 2009), as well as the present study. The Changing Academic Profession (CAP) survey, conducted in 2007 and reported in Coates et al. (2009) is perhaps the most relevant to the present study, as it is the most recent. CAP was an



Fig. 1 Trends in age of academic staff (%), 2000–2008. Source DEEWR selected statistics



Fig. 2 Trends in proportions of academic staff by classification (%), 1996–2008. *Source* DEEWR selected statistics

international study of the fulltime and fractional fulltime academic profession (it did not include casual academic staff) involving 20 countries and coordinated through a project team located at the University of Kassel. The Australian instrument was distributed across 20 Australian universities and yielded 1,370 responses at a response rate of 25 % (Coates et al. 2008). The study found that on average Australian academics are less satisfied with their work than their international colleagues, and less satisfied with their work than other professionals in Australia. The study also found that Australian academics have a much greater propensity for employment change than their international colleagues—whether by moving professions or by moving countries. In relation to both other academics around the world, and other professionals in Australia, they have among the lowest levels of satisfaction with institutional management and support, have one of the lowest rates of employment on a permanent contract, and work among the longest number of hours per week.

There is a high degree of congruence between the four main studies conducted in recent years (McInnis (CSHE) 1999; Winefield et al. 2003; Anderson et al. 2002; Coates et al. 2009). These studies paint the Australian academic workforce as heavily casualised, top-heavy in its age and classification profile, and highly mobile. The trends revealed in the national statistics confirm these characterizations. A valuable contribution of the present study is the insight it provides into how these shifts have affected the aspiration, plans, motivations and levels of satisfaction of the Australian academic workforce in 2010.

The present study: background and method

The study was based on an online survey across 20 universities that received 5,525 responses from academics, including sessional and casual staff: a response rate of approximately 16 %. The questionnaire sought to document academics' current work roles, attitudes and career objectives. This study builds on earlier work by the CSHE, in particular the 1999 CSHE study of academic work (McInnis 1999).

In all, 2,458 continuing staff, 1,818 limited term contract staff and 622 sessional staff responded to the survey (627 other respondents did not indicate their contract type). It is difficult to report the degree to which the sample of sessional staff is representative of the population for little is known about the characteristics, or even size, of the sessional staff population at Australian universities. This project goes some way toward addressing the paucity of information on sessional staff. The demographic characteristics of the fulltime and fractional fulltime (FT and FFT) staff in the sample showed a very close fit to that of the population of the sampled institutions as reported to DEEWR for its 2009a, b, c statistics collection, particularly in terms of level of employment, age distribution and work function (see Fig. 3). Female respondents outweighed male respondents in the sample, as is generally the case for surveys by questionnaire.

Findings are reported as proportions with 95 % confidence intervals following the method for proportions developed by Newcomb and Altman (2000). The 95 % confidence intervals acknowledge the chance (at 5 %) that the population value is not contained in the interval. Statistical significance can be read directly from the 95 % confidence intervals such that when 95 % confidence intervals (on independent group data) overlap by less than one quarter of the average of their total widths, the difference between the two estimates is statistically significant at p < 0.05 (Cumming and Finch 2005).

Findings

Attractors to academic work

The findings show that of the possible factors attracting people to academic work, those most valued centre almost solely on scholarly, intellectual activities. The opportunity for intellectually stimulating work (95.9 %), passion for a field of study (93.8 %) and the opportunity to contribute to new knowledge (91.1 %) are the aspects of academic work most likely to have drawn academics to the sector (Table 1).

Academics' commitment to the scholarly aspects of their work was also apparent in the qualitative aspects of the survey. Academics were asked to provide written responses to the statement, "The most satisfying aspect of my academic work or career is...?" Of the over 4,200 comments provided, most were focused on the pleasure of teaching and seeing students and research candidates experience moments of clarity and understanding in their learning, and on making breakthroughs in research problems. Interaction with a community



Fig. 3 Comparison of characteristics the FT&FFT sample to corresponding population at participating institutions in DEEWR 2008

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	Percentage	n	95 % CI
Opportunities for intellectually stimulating work	95.9	5,270 of 5,495	95.3–96.4
Genuine passion for a field of study	93.8	5,154 of 5,496	93.1–94.4
Opportunity to contribute to new knowledge	91.1	4,990 of 5,478	90.3-91.8
Autonomy and control over working life	85.8	4,714 of 5,495	84.8-86.7
Opportunities to research, write and publish	81.3	4,461 of 5,490	80.2-82.3
Chance to work in a collegial environment	72.7	3,978 of 5,473	71.5-73.8
Passion for teaching	65.1	3,568 of 5,479	63.8-66.4
Opportunities to supervise research students	59.3	3,239 of 5,463	58.0-60.6
Chance to do basic, blue sky research	58.9	3,207 of 5,448	57.6-60.2
Opportunities for community engagement	58.3	3,194 of 5,476	57.0-59.6
Good or satisfactory income	57.5	3,150 of 5,481	56.2-58.8
Job security	57.2	3,128 of 5,467	55.9–58.5
Opportunities to travel	48.9	2,675 of 5,473	47.6-50.2
Status of the profession in the public eye	33.7	1,845 of 5,473	32.5-35.0

Table 1 Proportion agreeing or strongly agreeing that the aspect of work indicated drew them to the profession (95 % CIs)

of scholars and achieving highly in their field were also common responses. A selection of comments which typify the written responses to this question were:

The best moments of teaching, when I feel like it is an aspect of my teaching that has made the difference for a student and the best moments of scholarly writing, when you feel like you have made a breakthrough...

Creating new researchers with high level skills and confidence and discovering new knowledge through PhD supervision.

Autonomy and the thrill of novel research findings.

Experiences of teaching

Academics with a teaching role were often concerned about a perceived lack of basic academic skills among students, and expressed concern that this problem was becoming worse. Only half believed that good teaching was valued at their institutions (Table 2).

Table 2	Proportion of	of respondents a	and agreeing	and disagreeing	with specified	statements (9	95 %	CIs)
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	Disagree (percentage)	95 % CI	Agree (percentage)	95 % CI
The changing expectations of students are a concern for me $(n = 4,579)$	14.0	13.0–15.0	67.2	65.8–68.5
I spend more time than I would like teaching basic skills due to students deficiencies $(n = 4,250)$	18.8	17.7–20.0	60.4	58.9–61.8
Good teaching is valued in my university $(n = 4,666)$	24.6	23.4–25.8	54.2	52.8–55.6

	Disagree (percentage)	95 % CI	Agree (percentage)	95 % CI
I have freedom to pursue my own research interests ($n = 4,772$)	19.5	18.4–20.7	61.5	60.1–62.9
I'm confident I can publish in good journals $(n = 4,739)$	21.4	20.3-22.6	59.0	57.6–60.4
I have adequate opportunities to do basic, blue- sky research ($n = 4,369$)	42.5	41.0-43.9	30.3	29.0–31.7
I'm confident I can get research grants $(n = 4,637)$	49.1	47.6–50.5	28.4	27.1–29.7
I have enough time for research $(n = 4,783)$	62.1	60.7-63.4	22.1	21.0-23.3
There is sufficient time available for my scholarly writing $(n = 4,680)$	60.5	59.1–61.9	20.3	19.2–21.5
Levels of grant funding are adequate $(n = 4,531)$	65.5	64.1–66.9	12.4	11.5–13.4

Table 3 Proportion of respondents and agreeing and disagreeing with specified statements (95 % CIs)

Experiences of the research environment

Academics with a research role were most likely to be concerned about the paucity of available research funding, and a lack of time to undertake, and write up, their research (Table 3).

The general experience of academic work

While the findings around teaching and research, above, did not vary greatly between career stage, on other matters there was a high degree of variation between the experiences of early, mid and late career academics. Around half of mid and late career academics reported: an unmanageable workload; a poor work/life balance; having to undertake an unreasonable amount of administrative work; and suffering considerable job related stress. Early career academics' concerns where with job security and level of income. Interestingly, the later the career-stage of the participant, the more likely they were to believe it was not a good time for a young person to aspire to an academic career (Table 4).

Short-term and long-term career plans

Nearly three-quarters of academics (73.5 %) indicated an intent to continue in their current role and position in the short term. However, substantial proportions of academics indicated longer term intentions (for the next 5–10 years) to move to another higher education institution (28.9 %); to move to an overseas institution (24.6 %); to leave the higher education sector all together (25.9 %); or to retire (20.5 %). On top of expected retirements, over one quarter of the academic workforce appears to have serious intentions to move out of Australian higher education during the next 10 years (Table 5).

A number of cross-analyses were undertaken to better understand the characteristics of those intending to depart the Australian higher education sector. By far the strongest factor associated with the intention to move to an overseas institution, or to leave higher education all together, was age. Younger academics are far more likely than older academics to be planning to move out of work in Australian universities. These findings were both

Career stage	Disagree (percentage)	95 % CI	Agree (percentage)	95 % CI		
My overall workload is reasonable and manageable $(n = 5,017)$						
Early	36.9	34.6-39.1	39.5	37.3-41.8		
Mid	57.3	55.1-59.5	24.5	22.6-26.5		
Late	56.1	52.7-59.5	27.8	24.8-30.9		
Total	48.0	46.6-49.3	31.7	30.4-33.0		
Overall, I have a	good work/life balance (n	= 5,018)				
Early	34.7	32.5-37.0	44.7	42.4-47.0		
Mid	49.8	47.6-52.0	27.2	25.3-29.2		
Late	48.7	45.4-52.1	30.2	27.2-33.4		
Total	42.8	41.4-44.1	35.2	33.9-36.5		
I undertaken an i	unreasonable amount of adm	ninistrative work	(n = 4,735)			
Early	36.9	34.6-39.2	37.1	34.8-39.5		
Mid	24.6	22.7-26.6	53.4	51.1-55.6		
Late	25.3	22.4-28.5	53.2	49.7-56.6		
Total	29.9	28.6-31.2	46.5	45.1-48.0		
I have good job s	security (n = $4,867$)					
Early	57.9	55.6-60.2	25.7	23.7-27.8		
Mid	36.1	34.0-38.3	47.4	45.2-49.7		
Late	23.6	20.8-26.7	61.1	57.6-64.4		
Total	42.9	41.5-44.3	40.5	39.1-41.9		
My job is a source	ce of considerable personal	stress $(n = 4,919)$	9)			
Early	38.2	35.9-40.5	38.2	36.0-40.6		
Mid	26.9	25.0-28.9	49.5	47.3-51.7		
Late	27.9	25.0-31.1	47.8	44.4-51.2		
Total	31.5	30.2-32.8	44.6	43.2-46.0		
I am satisfied wit	th my level of income $(n = 4)$	4,924)				
Early	40.6	38.3-42.9	34.6	32.5-36.9		
Mid	34.8	32.7-36.9	40.4	38.3-42.7		
Late	28.4	25.4-31.6	51.2	47.8-54.6		
Total	35.9	34.6-37.3	39.9	38.6-41.3		
This is not a good time for any young person to aspire to an academic career in my discipline ($n = 4,826$)						
Early	40.0	37.7-42.3	38.9	36.6-41.2		
Mid	29.6	27.5-31.7	49.5	47.2–51.7		
Late	27.7	24.7-30.9	56.3	52.9-59.7		
Total	33.3	32.0-34.7	46.4	44.9–47.8		

Table 4 Proportion of respondents and agreeing and disagreeing with specified statements (95 % CIs)

large and statistically significant. Figure 4, shows that close to 40 % of academics under 30 plan to leave Australian higher education in the next 5–10 years, with 13–18 % indicating an intention to leave in the immediate future. Around one third of staff aged 30–39 intend to leave in the next 5–10 years; 8–11 % in the short term.

The study investigated differences between those intending to leave and those intending to stay in relation to levels of satisfaction and other opinions. The main

	Short term plans			Long term plans		
	Percentage (of 4814)	n	95 % CI	Percentage (of 4814)	n	95 % CI
Retire	4.3	205	3.7-4.9	20.5	988	19.4–21.7
Management position in own or other higher education/research institution	4.5	218	4.0-5.2	11.6	560	10.8–12.6
An academic position in another country	6.9	333	6.2–7.7	24.6	1,184	23.4–25.8
Work outside higher education/ research institutes	10.0	483	9.2–10.9	25.9	1,248	24.7–27.2
An academic position in another higher education/research institute within Australia	11.8	567	10.9–12.7	28.9	1,390	27.6–30.2
Seek promotion within current institution	33.2	1,599	31.9–34.6	34.0	1,639	32.7–35.4
Continue in current role and position	73.6	3,542	72.3–74.8	14.7	717	13.7–15.7

Table 5 Proportion of respondents and agreeing and disagreeing with specified statements (95 % CIs)



Fig. 4 Long and short-term career plans of academics, by age group (error bars are 95 % CIs)

difference between the two groups ('leavers' and 'stayers') that stood out above all others was a greater likelihood of dissatisfaction with income and with job security: 49.9 % of 'leavers' indicated that they do not have good job security, compared with 39.7 % of other academics; and 42.4 % indicated that they are not satisfied with their level of income, compared with 33.6 % of academics who are not planning to move overseas (see Fig. 5).



Fig. 5 Proportion of academics planning to move to an overseas university who strongly disagreed with the propositions, "I am satisfied with my level of income," and "I have good job security." *Error bars* are 95 % CIs

Who are Australia's sessional academics?

An important contribution of the study was shedding more light on Australia's sessional academic workforce. This group has been under-studied in the past, as was suggested earlier in the account of the previous research. Exact figures on the numbers of sessional (or casual) academics employed by universities are not kept by DEEWR, and definitive population characteristics of sessional and casual academics are therefore unavailable. The demographic characteristics for survey participants who work in a sessional or casual capacity, tabulated below, are therefore both valuable and somewhat problematic. They provide a rare snapshot of the sessional academic workforce, though we do not have reliable population-level data against which to benchmark the findings.¹

Almost two-thirds of the sessional academics surveyed were female, and just over twothirds were born in Australia. While most were at Level A (64.6 %) many were at more senior levels. Almost two-thirds (63.9 percent) were in teaching only positions. There was a large spread of age groups, with more than half over the age of 40. Only 48.9 % were currently studying: far less than fits the often prevalent assumption that most sessional academics are doctoral students. More than a quarter had been in their position for over 5 years (Table 6).

The most common forms of work undertaken by sessional academics were tutoring (79.9 %; 95 % CI = 76.6–82.9) and lecturing (55.0 %; 95 % CI = 51.1–58.9), and a substantial proportion also have a teaching coordination role (19.1 %; 95 % CI = 16.2–22.4).

The primary theme repeated throughout the open comment sections by sessional academics was the desire for more secure employment conditions. These claims are supported by the nature of participants' employment arrangements, with 64.0 % indicating that their sessional work was comprised of a reasonably regular series of short term contracts. The study did not indicate *why* these effectively 'continuing' academics are not offered more stable, long-term contracts. Only 18 % reported their work to be irregular or sporadic oneoff contracts, while another 18 % reported their work being on an occasional hourly basis. A typical comment about sessional work conditions was:

¹ Confidence intervals, and similarly evaluations of statistical significance, presuppose a random sample with a normal distribution. Due to the difficulties in administering the survey to sessional staff, outlined above, we cannot be confident that the sessional sample is truly random. These data should be treated as indicative only and interpreted with caution.

Table 6 Characteristics of surveyed sessional academics (95 %

CIs, N = 622)

	Percentage	95 % CI
Sex		
Female	63.7	59.7-67.5
Male	36.3	32.5-40.3
ATSI		
Yes	1.3	0.7–2.6
Place born		
Australia	67.0	63.2–70.6
Overseas	33.0	29.4-36.8
Age group		
20–29	22.2	19.1–25.7
30–39	20.9	17.8-24.3
40-49	24.7	21.5-28.4
50-59	20.9	17.8-24.3
60+	11.2	8.9-14.0
Highest qualification		
Bachelor	23.5	20.2-27.0
Masters	35.5	31.8-39.4
Other postgraduate	18.1	15.2-21.4
PhD	22.9	19.8–26.5
Currently studying		
No	51.1	47.1–55.1
Yes	48.9	44.9-52.9
Course		
Bachelor	3.5 ^a	1.9–6.4
Masters	13.5 ^a	10.0-18.0
Other postgraduate	10.6 ^a	7.6–14.8
PhD	72.3 ^a	66.8-77.2
Position		
Teaching only	63.9	59.9–67.7
Teaching and research	26.4	23.0-30.2
Research only	7.1	5.3-9.5
Postdoctoral	2.1	1.2-3.6
Years in position		
<1 year	13.6	11.0–16.8
1 year-23 months	24.2	20.8-28.0
2 years-35 months	15.3	12.5-18.6
3 years-47 months	13.6	11.0–16.8
4 years-59 months	6.5	4.7-8.9
5–9 years	17.1	14.2-20.5
10+ years	9.7	7.5–12.5
Level		
Level A	64.6	59.9–69.0
Level B	27.2	23.2-31.7
Level C	4.1	2.6-6.5
D and above	4.1	2.6-6.5

 $^{\rm a}$ Proportions for qualification currently studying is of the group studying only. N = 282

I received three commendations for excellence in teaching in my time, but there were no opportunities for me to move beyond casual work. I was lurching from contract to contract and filling out time sheets. I had better working conditions at my first job at Hungry Jacks.

When asked why they are working in a sessional capacity, many indicated that they work in a sessional capacity because no ongoing academic positions are available to them (21.3 %; 95 % CI = 18.2–24.7), or to prepare for an academic career (18 %; 95 % CI = 15.2–21.2). One in five (20.1 %; 95 % CI = 17.1–23.5) said that they use sessional work as a source of income while studying. Again, these findings contradict many prevalent assumptions about sessional academics being young HDR students supplementing scholarship income (the career plans of Higher Degree Research candidates are explored in Edwards et al. (2010).

Academics' thoughts on replenishing, developing and maintaining the workforce

Respondents were asked to offer their views regarding how universities could replenish, develop and maintain the academic workforce. About a third of responses referred to the obvious solution of increasing funding to universities in order to employ more academic staff, decrease workloads, increase salaries and offer better job security. Around 5 % of the respondents indicated that the matter is too complex and difficult to address. The remaining comments focussed on issues concerning institutional recognition and support for the diverse work roles and career development needs of academic staff.

Many of the academics' comments clearly reflected the diversity of academic work roles and responsibilities, and also the lopsidedness and overload that often comes with these complex work portfolios. Comments such as "we can't all be expected to do everything" reveal the frustration that many academics feel about aligning their academic roles within a one-size-fits-all model of academic work. It was clear that very few academics believed that they could adequately balance the teaching/research/administration roles to the level that seems to be expected within their universities. Typical comments included:

Even though there is a spoken acknowledgement that all three (teaching, research, and service) are important, every academic knows there is a hierarchy, with research sitting at the top... I think academic institutions forget that we need a blended balance of strong teachers and strong researchers in order to make the university viable and profitable–and we can't expect that we'll get both out of one person who has any sort of work-life balance!

By far the strongest critical comments were reserved for management of universities. Academics indicated that over-managerialism in universities has resulted in low morale within the academic workforce. There is a perception that universities have lost sight of the main game—with many academics expressing their frustration that increased time spent on administrative tasks driven by the accountability and auditing purposes of management, means that they have less time available for their academic work. Typical comments include:

Much of what I value most about academic work-that is, working with ideas, generating new knowledge, and pursuing lines of inquiry for which my scholarly background best equips me-is continually undermined by the techno-bureaucratic nonsense of 'quality' audits and the farcical pretence that perpetual competition, ranking and measuring somehow produces improvements. In order to redress this, many academics suggested that universities could restructure work practices, so that professional staff can undertake more administrative duties, where appropriate, allowing more time for academics to focus on their academic work. This could be interpreted as a call to shift professional staff load from the top of the classification scale, to more mid-level support.

Discussion

This study reveals significant challenges for the organisation and management of the Australian academic workforce. Three issues stand out. First, anticipated retirements, career changes and possible overseas departures suggest a major shortfall in supply may be imminent if sufficient new staff are not employed. Second, an extended period of casualisation of academic employment (in research, short and medium term contracts prevail; in teaching, sessional work is the norm) has created a gap in the development provided for younger, and to some extent mid-career, academics. Third, many academics in mainstream teaching and research positions are overwhelmed by their workloads and the range of their responsibilities, and are concerned that the opportunities for creativity, innovation and originality are being eroded. These three issues have significant implications for the continued quality and relevance of teaching and research in Australian higher education.

It is likely that the performance capacity of the academic profession, as it is presently structured, is nearing (or has reached) its limits. A systematic response is therefore needed to the unmanaged growth in the expectations on academic staff—in terms of rising students numbers, increased administrative- and accountability-related work, and increasing pressure to produce measurable outputs (publications, grants, etc.)—and the accompanying unplanned diversification of academic work roles. Such a response should explicitly acknowledge that a transitional stage has been reached in the creation of a more heterogeneous profession, and establish the processes for building new recruitment, appointment and promotion policies.

There is an evident tension running through the findings and commentary we report here: there is an urgent need to recognise and legitimise the ubiquity of 'non-traditional' modes of academic work, yet much of the dissatisfaction with these new modes of work stems from the absence of traits closely aligned to traditional roles. To some extent, this is because the way academic work is valued is based on outmoded notions. However, there are deeper issues at play. Consider the characteristics of traditional, tenured positions: autonomy; a balance of research, teaching and service; job security (perhaps a job for life), and clear and largely linear career pathways. New modes of academic work are often less autonomous (subjects taught are more likely to be offered due to student demand or business plans than the interests of the course coordinator, and research tends to follow funding); they are likely to be exclusively based in teaching or research, and to contain little scope for service. They are certainly not jobs for life, are unlikely to follow clear career pathways, and may be comprised of punctuated periods in different work roles and even different institutions. Addressing the levels of dissatisfaction experienced by academics in non-traditional roles requires more than denormalising the idea of 'traditional' academic work or simply giving more legitimacy to other forms of work (although this is important). Some of the non-traditional modes of work are at best unfair and at worst exploitative. At the same time, it ought to be possible to design jobs that fit more heterogeneous roles and work profiles, more diverse sources of funding, and more complex social demands, and yet that are intellectually satisfying, self-managed and creative.

Most importantly, new modes of academic work should still provide ongoing job security (even if not a job for life); while for their part, academic staff should be able to envisage and navigate satisfying career pathways even if these are non-linear. The contemporary Australian university environment has evolved to make service to society, rather than simply the accumulation of knowledge, its primary function. Traditional conceptions of academic work cannot be the norm in this environment. But this does not mean the higher education system should abandon those aspects of traditional modes of work that retain an enduring value.

Conclusion

In a higher educational sector characterised by increasing levels of institutional diversity, institutional responses to the present situation can be expected to differ considerably, and policy at the national level needs to allow for institutional differences: a uniform approach is undesirable and unlikely. While it is beyond the scope of the present paper to prescribe a remedy to the pressures described above, we offer a number of principles that might underlie responses by institutions and by government.

Firstly, a more sophisticated distribution of academic work roles is needed. The present norms of teaching and research positions (often tenured), teaching-only positions (often sessional) and research only positions (often fixed term), are overly rigid, and do not provide adequate scope for career development for teaching-specialist and research-specialist staff. In particular, appropriate career pathways and promotion opportunities for teaching-specialist academic work should be ubiquitous across the sector. Ensuring that excellence in teaching is defined and recognised as a viable path to progressing through a successful career will be an essential element in achieving an effective differentiation of academic work roles.

That said, the primacy of the research-teaching nexus in the work of universities should be maintained, for it is integral to maintaining the quality and meaning of higher education. In practical terms, the present settings often throw research and teaching into direct competition for academics' time: productivity and effectiveness in one area is achieved at the expense of the other, at least in part. A less simplistic consideration of the nexus, which focuses on the interplay between teaching and research at the department level, rather than in the work of the individual academic, is a practical approach in the present, mass higher education setting.

While a certain level of casualisation is both necessary and desirable for efficiencies and effectiveness (including for providing opportunities for HDR candidates and adjunct staff), the prevalence of casual and short-term contracts has undermined the sustainability of the academic profession. To ensure that projected growth in student participation, and the retirement of older staff, do not result in staff shortages, institutions should explore strategies for shifting casual and short-term staff load to long-term and ongoing contracts. As the main impediment to the provision of more secure positions appears to be uncertainty around finance and planning at the work-unit level, institutional employment policies might ensure that a greater proportion of this cost/risk is carried at the institution level. Further, a better understanding of the volume and character of the work undertaken by

casual/sessional and short-term contract academics is needed. Data of this kind might be collected through DEEWR's statistical reporting processes, while acknowledging the additional administrative burden this would create for institutions—a burden which is itself a growing problem.

Reducing this administrative burden requires ongoing and over-arching monitoring of accountability and auditing processes by government, and a structured approach to business process reform of reporting by institutions. At the institutional level, there is a need for the development of a new and specialised kind of professional staff. At present, academic staff undertake many tasks that are in essence administrative, and peripheral to core academic duties around teaching and research, such as reporting activities for audits and performance measurements (of publications, grant histories, etc.); preparation of grant applications; and subject coordination tasks (such as data entry for grading and other administration). Such tasks often require expertise in academic management, but need not be undertaken by academics themselves. These duties might better be undertaken by a new kind of specialist professional staff, freeing academic staff to focus on their own core duties.

Finally, institutions should be cautious about replicating national funding formulae at the academic unit level. Internal funding allocation to academic units often mirrors allocative mechanisms at the national level, for this is a rational institutional strategy. Monitoring the effect of national funding allocation formulae on unit-level staffing decisions needs to become a greater priority in the assessment and development of national policy.

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