Sixteen years of change for Australian female academics

Progress or segmentation?

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Quantitative methods and secondary data informed by critical realism and a feminist standpoint provide a contemporary snapshot of academic gender ratios in Australian universities, along with historical data, for the entire population of interest. The study is set in the context of the well-researched, worldwide gendered nature of higher education and focuses on female academics in teaching due to the teaching-research status divide and systemic changes such as managerialism that bring teaching into the limelight. Findings reveal that women's overall status continues to improve, albeit slowly. For example, parity in the teaching professoriate may not be achieved until 2033. Apparent gains are patchy in that women tend to be confined to 'bad' jobs as casual teachers and males still constitute a large majority of the academic professoriate. Overall, the increasing numbers of women mask segmentation and marginalisation. The pipeline and critical mass theories are useful explanations for this gender imbalance. The main policy recommendation is to create and privilege ongoing, teaching specialist roles.

Introduction

Universities are highly gendered institutions and this is an international phenomenon. The gender balance in Australian universities is analysed by reporting contemporary data on academic staffing numbers. National gender statistics for the last sixteen years are examined in order to establish trends and benchmarks for academic women's employment status, representation and level, particularly in teaching roles. Teaching is emphasised due to women's unique positioning in relation to this academic responsibility and the ways in which it may exacerbate their lower status. The paper is organised to first touch on the well-established, extensive literature on the gendered nature of higher education, followed by academic women's orientation to teaching, managerialism and its relationship to academic work and the Australian higher education and equity policy context. The quantitative method is informed by critical realism and a feminist standpoint. Findings are examined in the light of where women are placed in academic hierarchies and in relation to high and low status academic work. This is followed by discussion of the theoretical and policy implications.

Gender in higher education

Universities have long been acknowledged as gendered institutions by virtue of their division and organisation of labour (Allport, 1996; Benschop & Brouns, 2003; Kantola, 2008). Horizontal and vertical segregation were found in many of the countries reported in Bagilhole and White (2011) including Portugal, Ireland and Australia. Horizontal segregation is evident when women have different occupations from men. Vertical segmentation occurs where both genders are in the same occupation and men fill the higher positions (White, 2011). This gender segregation translates into women's lack of advancement and lower status, which is well documented internationally (Abbott, Sapsford & Molloy, 2005; Doherty & Manfredi, 2006; Ebner, 2007; Gopinathan, 2007; Morley, 2012; Niven, 2007; Odhiambo, 2011; Peterson, 2011; Van Den Brink, Brouns & Waslander, 2006).

Homosociability and the perception of women as 'the problem' is a common international phenomenon (O'Connor, 2011, p. 188). Like their overseas counterparts, Australian universities are still male dominated. Despite improvement over time, women academics remain under-represented at senior levels (DEEWR, 2010; Dobson, 2010; Fitzgerald & Wilkinson, 2010; Myers, 2008; Winchester, Lorenzo, Browning & Chesterman, 2006; Wyer, 2009). They earn less than males, even taking human capital into account (Umbach, 2007); are less likely to apply for promotion (Carrington & Pratt, 2003); are under-developed in terms of training provision (Wallace & Marchant, 2009) and specifically, leadership development (Tessens, White & Web, 2011); and suffer similar discrimination from males as professional (non-academic) staff (Wallace & Marchant, 2011). Since some of the research into the gender status of women academics was conducted a number of years ago, it is appropriate to revisit the issue, with fresh data. Here the numerical and status positioning of academic women is investigated with particular focus on teaching.

Women in teaching

The gender division in universities is evident in academic roles where women are more likely to be on the teaching track. Women academics do disproportionately more teaching (McKinney & Chick, 2010; Myers, 2008; Ebner, 2007; Wyer, 2009), are more positively orientated to teaching (Deem, 2003; White, 2003), identify more as teachers, invest more in developing a teaching identity, are more likely to voluntarily practice the scholarship of teaching and learning (McKinney & Chick, 2010; Myers, 2008), prepare more for teaching responsibilities (Wyer, 2009), find

it difficult to fit research in between their teaching, administration and pastoral care responsibilities (Neale & White, 2005) and spend more time on teaching issues (Probert, 2005). Workload allocation may hinder women through a range of interacting factors including heavier teaching loads (Barrett & Barrett, 2011).

Given this emphasis on teaching, examining national gender data and academic responsibilities undertaken by women will provide valuable context for the macro status of women vis-á-vis the various academic roles. These traditionally include teaching plus research for tenured positions, although flexible specialisation is evident in terms of teaching-only and research-only. In particular teaching-only casuals have proliferated in recent years (Coates, Dobson, Goedegebuure & Meek, 2009).

Women's stronger alignment with teaching is problematised in the literature due to teaching's lower status. Whether teaching and research compete or complement each other has long been debated (Mehallis, 1997). Teaching is central to universities' role and is the main source of funding (Subramaniam, 2003), yet, it is undervalued compared to research (Cretchley, 2009; Fletcher, Boden, Kent & Tinson, 2007). Promotion to the professoriate or senior management largely depends on research output (Riordan, 2011). Policy maintains the divide between low-status teaching and high-status research, which exacerbates the divide between women and men (Acker, 2008).

Gender, teaching and managerialism

New public management (NPM) is evident in the higher education sector, with the aim of achieving economic efficiency, through a managerial model that emphasises top-down control (Carvalho & de Lourdes Machado, 2011; Goransson, 2011). One consequence of the efficiency drive is the use of contract and casual staff for carrying out teaching duties. This has led to more precarious employment with segregation between the 'official/formal' career track and the 'hidden/informal' (non-career) track which carries a heavy teaching load and no allowance for research (Santiago & Carvalho, 2008, p. 211). It also leads to more focus on and measurement of research, particularly where it brings in external funding (Carvalho & Santiago, 2008). Goransson (2011) concluded that male domination exists across various forms of governance and that managerialism is not necessarily more or less conducive to women achieving top positions. Nonetheless, the effects may be more subtle and occur at lower levels such as segregation between teaching and research and the career and non-career tracks.

The Australian policy context

Varying national polices across different countries provide greater or lesser support for women in the workforce and in universities in particular. These policies address work-life balance, equal employment opportunity (EEO), affirmative action and parental leave. Australia's equal opportunity framework is less comprehensive than EU countries (White, 2011). In Australia, there have been years of legislative, social and policy change, but women still lag in seniority (Still, 2006) Universities and other institutions undertook extensive action to enhance the position of women (Chesterman & Ross-Smith, 2006) and significant improvements were achieved between 1995 and 2005 (Winchester *et al.,* 2006), however the culture promoted by the femocrats of the 1990s might be waning (O'Connor, 2011).

Regarding broad legislation and policy, Australia was somewhat later than New Zealand in implementing national polices such as EEO, but Australian universities have been at the forefront in paid parental leave compared to other organisations (White, 2011). Nonetheless, Australian women in general are less likely to work full-time with low participation rates for women with young children (KPMG 2010 in White, 2011). Initiatives include legislation (Equal Opportunity for Women in the Workplace Act, 1999), agencies charged with recognition, lobbying and reporting on that act (*Equal Opportunity for Women in the Workplace Agency ([EOWA], 2012*), new flexibility provisions in the *Fair Work Act 2009* and the Gender Equality Blueprint 2010 (White, 2011).

Since 1999, the peak body for higher education management has had an articulated commitment to gender equity. Universities Australia (UA) (formerly the Australian Vice-Chancellors' Committee) has had three action plans for bringing about greater gender equity and a more inclusive culture in universities (AVCC 1999, 2006; Universities Australia, 2010). UA's action plans and focus on universities taking responsibility for more inclusive cultural changes have been informed by the UA Executive Women's Committee. Elements of these plans relating to academic women have focussed on factors that contribute to increasing the numbers of women into senior management roles, increasing the number of women at C, D and E levels and pipelining women from PhDs into academic roles. The 2006 plan recognised an increase in the numbers of women at Academic level C but also uneven progress across the sector. Among its targets were to increase the percentage of women at level D from 16 per cent in 2004 to 25 per cent by 2010, increase the number of women at level D from 24 per cent in 2004 to 35 per cent in 2010, increase the number of women academics with PhDs, increase the number of women in senior management positions and examine the gender ratios by discipline and the gender ratios of those with PhDs by discipline. Additionally, the 2010 Strategy sets targets for increased numbers of women at senior management level and at senior academic levels across disciplines and signals data on women in research (e.g. Bell and Bentley, 2005; Dever, 2008).

It is interesting to note that women's roles in teaching are not mentioned in the three plans and career development seems predicated on attaining a PhD as the minimal qualification for advancement with attainments in research and management as frameworks for success in promotion. All three plans appear to subscribe to the pipeline theory (White, 2004). There is less overt evidence of cultural change targets, although this may be implied through increased numbers of women leading to critical mass (Kanter, 1977). However, it must be acknowledged that UA and its predecessor have invested in development programmes for academic women, individual universities have also engaged in gender equity policies and development strategies and there has been an inspiring example of a cross-institutional programme, the Australian Technology Network Women's Executive Development (ATN WEXDEV).

We also acknowledge the statistical data provided by the Department of Industry, Innovation, Science, Research and Tertiary Education (DIISRTE) on the higher education workforce and the work done by Macquarie University and Queensland University of Technology (2011) in developing more nuanced statistical analysis regarding gender comparisons. The latter does not, however, refer to women's position in regard to the three categories we use as units of analysis in this paper.

A long-term, retrospective, quantitative, national view of how gender equity has changed over time provides ideas about how the policy context has manifested in changes to women academics' status. The central research questions are thus:

1. What is women's representation in Australian universities?
2. What is the relative position of women academics vis-á-vis teaching and research?
3. How has women's status changed regarding academic level and particularly the teaching professoriate?
4. What do the results suggest about the policy context's efficacy?
5. How might women's patterns of participation in teaching be accounted for?

Method

Critical realism, a belief that there is an independent reality, informs this study, which utilises verifiable statistical information (Denzin & Lincoln, 2005). However, the research is also informed by a feminist standpoint, putting women at the centre (Harding, 1991). From this perspective, meaning is also constructed from the results. A quantitative research design using secondary data was deployed, ensuring that results were not confounded by personal accounts or perspectives of participants (Halse, Deane, Hobson & Jones, 2007). Data was extracted from the Department of Industry, Innovation, Science, Research and Tertiary Education ([DIISRTE], 2012a) for Australian university staffing numbers, gender and roles. DIISRTE provides aggregated, de-identified information on these and other variables dating back to 1989. Only data from 1996 was included as it was most accessible and there are previous reports using earlier information (AVCC, 2005; Burton, 1997; Carrington & Pratt, 2003). The data represents the entire population of interest to 2012.

One government department has collected higher education data (although names have changed due to changes in government and ministerial reshuffles). The same standards, variables and interpretations appear to have been maintained, thus overcoming problems of secondary data such as quality and lack of control over choice of variables (Boslaugh, 2007). Generally, consistent table and appendix numbering facilitated access to the same figures for each year, from Staff (year): Selected Higher Education Statistics. The file format varied. From 1997 to 1999 it was provided as Reports and Tables in PDF, from 2000 to 2007 as Reports and Tables in Excel and from 2008 to 2012 as Full time Equivalence and Appendix 1-Actual Staff FTE in Excel. Universities rather than all higher education providers were included. Academics were distinguished from professional staff, labelled other in the DIISRTE data. The term professional is used here to designate general or non-academic staff (Sebalj, Holbrook & Bourke, 2012; Wallace & Marchant, 2011). Data usage conformed to Department of Education Employment and Workplace Relations [DEEWR] (2012) protocols, with permission from DIISRTE.

Academic levels and roles

Academic employment relationships in Australian universities vary and include ongoing, full time (tenured) positions, part time or fractional appointments which may be fixed term (e.g. three years) and casuals (sessionals) who are employed for specific tasks such as tutoring for a semester or marking. Casuals are temporary, may have irregular hours rather than full time, are not ongoing and typically are teaching-only. Tenured academics in Australia generally have both teaching and research responsibilities (labelled here as teaching-plus-research) but academic work can also be teaching-only and research-only. Numbers in each role (teaching-plus-research, teaching-only, research-only) for each year were extracted from Appendix 1.6. FTE for Full-time, Fractional Full-time and Actual Casual Staff by State, Institution, Function and Gender (DIISRTE, 2012a). Casual numbers in teaching-plus-research were negligible and not included. Totals were aggregated for each role by gender. Appendix 1.6 includes actual casuals for the previous year, enabling casual numbers to be reported with more reliability.

Australian academics (faculty) are classified in five levels of seniority from A to E, with the lowest being Associate Lecturer (A), followed by Lecturer, Senior Lecturer, Associate Professor and Professor (E), with the latter two constituting the professoriate. The DIISRTE data recorded levels as below lecturer (A), lecturer (B and C recorded separately) and above lecturer (D and E recorded together). Gender details to calculate proportions at each academic level were extracted from Table 1.7 FTE for Full-time and Fractional Full-time Staff by State, Higher Education Provider, Current Duties Classification and Gender, and aggregated by gender for each classification level. Table 1.7 does not include casuals (DIISRTE, 2012a).

Results

To provide context and indicate the population's scope, total numbers for academic and professional staff in Australian universities rose by 38.25 per cent, from 83,099 to 114, 882, in the period 1996 to 2011 (FTE including casuals) (DIISRTE, 2012a). This was accompanied by rising student numbers, of which there were 634, 094 in 1996 (DETYA, 2001) and 1,137,511 in 2011 (in public universities) (DIISRTE, 2012b). Thus student numbers grew by around a half million (79.39 per cent) and grew more rapidly than staff numbers. Academics made up less than half of all university staff in 2011 at 47.67 per cent, whereas previously they were in the majority. Gender equity for students was achieved in 1987, in terms of gross numbers (DETYA 2001). For staff as a whole (academic and professional) it was achieved in 2001 (50.50 per cent, FTE including casuals) (DIISRTE 2012b).

To deconstruct this apparent gender equity, the following gives a fine-tuned analysis of females and males in the three main academic roles (teaching-plus-research, teaching-only and research-only). First, those academ-

ics who are concerned with teaching are examined, as teaching comes into sharper focus with massification of the system (Birrell & Edwards 2009), documented above in the 80 per cent rise in student numbers and also women's particular relationship to teaching, noted in the literature review. A further reason for focussing on teaching is that this is where significant shifts are taking place that particularly affect women. In this analysis the designation teaching academics includes those who were classified as teaching-plus-research or teaching-only, but excludes research-only. Gender proportions for teaching academics from 1996 to 2011 are shown in Figure 1 (full time equivalent [FTE] including fractional and casuals). The total number of teaching academics grew from 31,877 to 39,450 or 24 per cent. Women still represent less than half, but their proportion rose to 46 per cent, up from 35 per cent in 1996. The increase in teaching academics was largely fuelled by women.

Figure 1 showed teaching-plus-research and teaching-only. Figure 2 separates out teaching-only, which rose
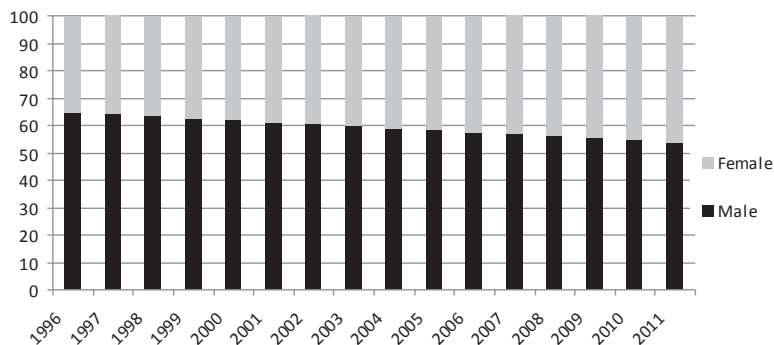

Figure 1: Percentage of female and male teaching academics
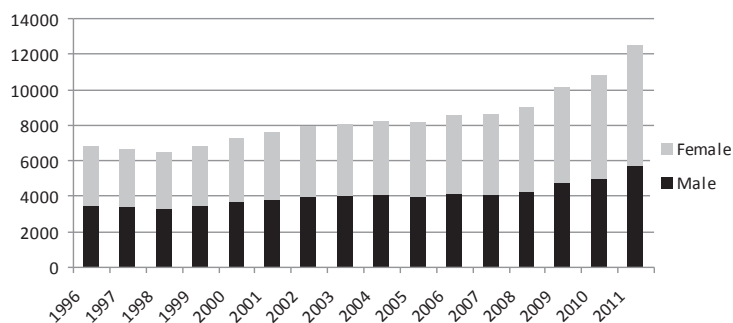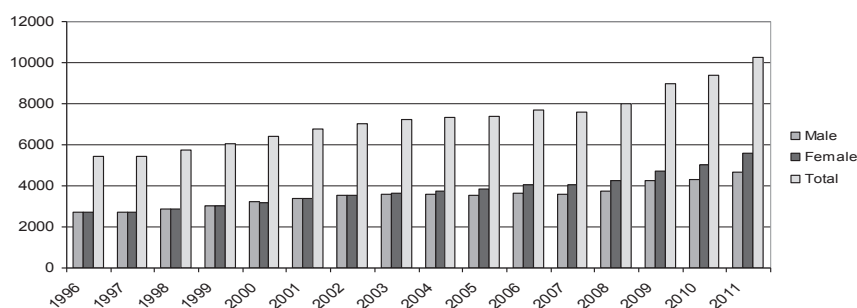

Figure 2: Numbers of male and female teaching-only

Figure 3: Number of casual teaching-only, male, female and total

steeply. The numbers almost doubled in fifteen years and escalated in the last two. As of 2011, there were 12,472 teaching-only. This constitutes nearly one-third (31.62 per cent) of the total for teaching-plus-research and teaching-only.

Women's share of teaching-only rose from 48.98 per cent to 54.22 per cent in 2011, with parity at 50.52 per cent in 2004. The increase in teaching-only is further constituted by a large proportion of casuals, whose numbers nearly doubled from 5,435 in 1996 to 10,244 in 2011, as shown in Figure 3. This casual total represents 82.13

per cent of all teaching-only. In summary, the number of teaching academics has increased, largely through swelling in teaching-only numbers (rather than teaching-plus-research), many of which are casual. Within these trends, women make up a greater proportion, but only in teaching-only, casual do they constitute more than half.

Turning back to women's overall representation in teaching, an average increase of 0.71 per cent per year in female teaching academics is demonstrated in Figure 1. Projecting from this trend, it would be around the year 2020 (seven years) before women constitute half of
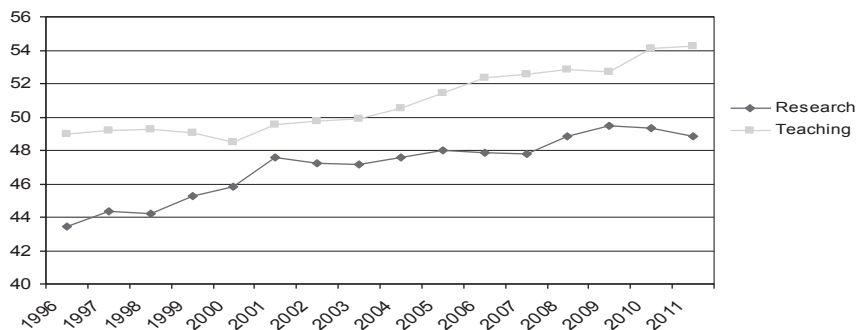
Figure 4: Percentage females in teaching-only and research-only

level. Women in the professoriate (Level D and E) increased steadily over the sixteen years, doubling from 14.00 per cent in 1997 to 29.20 per cent in 2012. This represents an average increase of approximately 1 per cent per year. If this trend continues it would be 21 years (2033) before women reach numerical parity in the teaching professoriate. It is likely that separating the two levels of the professoriate would show more women at the lower level D rather than E (Strachan *et al.*, 2012).

university teaching academics. On the other hand, given the rapidly mounting teaching-only results in Figure 2, numerical parity may be realised sooner, but would then be achieved by women in teaching-only, casual positions, not teaching-plus-research.

In contrast to results for teaching presented thus far, there are also research-only academics. The DIISRTE data did not indicate whether research-only positions were ongoing or short term, however, the numbers almost doubled from 8,246 to 15,308 from 1996 to 2011. The proportion of women was consistently under half but overall rose from 43 per cent to 49 per cent. The most recent numbers suggest that the upward trajectory reversed from 2009, as shown in Figure 4.

From Figure 5, women's representation at the lowest level (Level A) has not changed from around half over the period, whereas all of the higher levels increased, consistently in parallel. This suggests that women and men enter academe and occupy the lowest level in roughly equal proportions, but beyond this they do not advance at the same rate, with women still under-represented at senior levels. However, the next level up (Lecturer or Level B) achieved parity for the first time in 2009 at 50.04 percent and continued to increase slightly.

Women's status in the academic hierarchy

Turning next to the question of women's hierarchical status, results for academic classification levels are shown in Figure 5 (teaching-plus-research and teaching-only fractional and full time, excluding casuals). The figure plots the percentage of women compared to men at each academic

Discussion

To answer the five research questions: first a picture emerged of gender parity at student level in the late 1980s, across all university staff early in the new century, shortly followed by parity for women academics but confined to teaching-only roles. This occurred in 2004 and only because of a rapid increase in female casuals. Thus
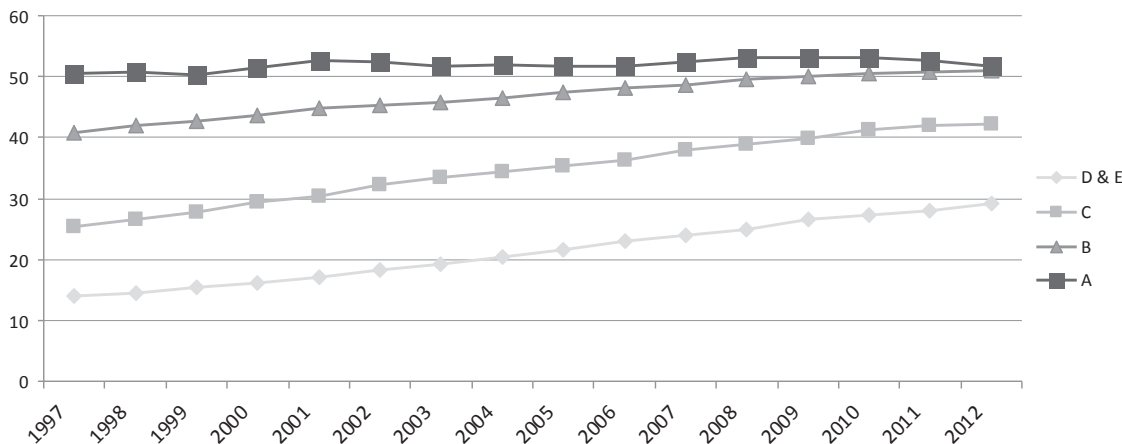

Figure 5: Percentage of females compared to males by academic level

there is numerical feminisation (Leathwood and Read, 2009) for overall student and staff numbers, both of which exceed fifty per cent females. This represents a 'mass' but whether it is a 'critical mass' remains to be seen. In terms of more contemporary progress, in teaching-plus-research women are still under-represented. Research-only roles approached parity in 2011, but a persistent upward trend was less evident here than in all other results. In academic roles that include research (particularly the career track, ongoing, teaching-plus-research) numerical parity has yet to be achieved.

The results reveal overall increased numbers of females, however it is patchy and slow. Labour is still divided along gender lines and parity in the professoriate could be twenty one years away. There is evidence that the pipeline continues to 'leak'. It may still be just a matter of time (Benschop & Brouns, 2003; Chesterman & Ross-Smith, 2006), but a lengthier one than first envisaged. On the other hand it may be more accurate to refer to the pipeline fallacy (Allen & Castleman, 2001), since the slow rate of change may still reflect current discriminatory practices and systems. Change is slow but inexorable as it reflects wider managerialist trends including: massification; tightening budgets; higher numbers overall; teaching quality focus and more of professional staff, women academics, teaching-only positions and casuals. The situation is improving but the figures raise concerns for those seeking full equity. The results confirm Morley's (2006) argument that women are winners and losers because they have been 'allowed in' to academe but are still confined to lower levels and now, as the results reveal, located in insecure or 'bad' jobs, not on the career track. Horizontal segregation is evident in women in teaching-only roles and vertical segregation in men occupying higher levels. Thus it could be argued that managerialism (and other forces) have produced a two-track, gendered workforce. The results also support May, Strachan, Broadbent and Peetz (2011) who studied casuals in Australian universities using superannuation data, providing a different perspective from the FTE data utilised here. They also report significant gender segregation in the casual workforce and estimate that each FTE may represent five to seven individuals. Thus the actual number of women in casual teaching-only reported here is severely under-represented and the human impact much more significant.

To answer the next research question about women's position regarding teaching and research, they are clustered in the lower academic levels, form part of a large and increasing mass of teaching-only and are a significant element of the escalating casualisation of teaching. The relative position of women vis-a-vis teaching and research is that they are over-represented in teaching. There were different patterns for teaching-only and research-only. If gender was not a consideration, the patterns would be the same and thus the results reinforce the gendered division of labour (Benschop & Brouns, 2003).

Third, there has been some improvement in gender status measured on representation at academic level, with women's proportion of the teaching professoriate doubling, but still well below half. The trend is consistently upward and can be extrapolated to predict gender equity in another generation. Fourth, the results imply that the Australian policy context has been at least partially efficacious, however improvement is inordinately slow. There are danger signs in terms of populating the sector with women in roles and employment arrangements that are less than attractive. In terms of the fifth and final research question, fully accounting for female academic patterns of participation is beyond the scope of this research but two key theories carry weight, as discussed next.

Implications for theory

Three main theories about gender issues are useful for discussing the results. One common concept is the pipeline. In higher education it is based on the assumption that as more women complete first degrees, more will continue to post-graduate studies, academic careers and advancement into the professoriate and senior management (Bell & Bryman, 2005; White, 2004). The pipeline effect is partially supported here with women continuing to enter the pipeline at the lowest level and their representation at higher levels continues to improve. However, although many women are entering the system, not all of them are in the pipeline. Ongoing teaching-plus-research roles are required for success and higher status, yet many of the women are teaching-only casuals. At present, it seems inconceivable that an Australian university would appoint a vice-chancellor whose career had been teaching-only, therefore increasing female numbers in teaching-only or non-ongoing positions will not create the requisite pipeline for ultimate success. The male career trajectory is still the typical path into senior management (Bagilhole & White, 2011).

A second theoretical concept is critical mass, which is the number of individuals representing a minority needed to change organisational culture (Morley, 1994). A third of women in numerically male-dominated workplaces can create better balance and change organisational dynamics to foster genuine inclusion of women (Kanter, 1977). Given that women in the Australian professoriate

reached thirty per cent in 2012, perhaps this critical mass will change the dynamics and accelerate the progress of women. However, if women are dispersed with little chance to communicate they do not constitute the critical mass that can lead to change (Etkowitz, Kemelgor & Uzi, 2000). Many of the women entering the system are in teaching-only, casual roles. They are on the periphery and have few opportunities to communicate and partake in universities' collegial or social life (NTEU 2012; Strachan *et al.* 2012) and thus may not form a critical mass. There may also be an opposing, negative reaction against the 'invasion' of women (Raman *et al.,* 1996). Perhaps these countervailing forces explain the results, in that there are more women in universities but they tend to be excluded from the pipeline and may not be able to form a critical mass. Therefore it seems less likely that the sheer rise of female, casual teaching staff evident in this research will effect significant change.

These two theories, the pipeline and the critical mass, focus on the numbers, however another explanation that could be taken into account looks at processes behind these numbers. Discrimination against women in higher education takes place in complicated and subtle ways with the micropolitics of power and its effects evident on a day-to-day basis. Women are treated differently in social relations and their professional and intellectual capital are devalued and misrecognised (Morley, 2006). Further, the sociocultural contexts themselves produce gender differences rather than them being 'natural' characteristics of women. The dominant group maintains control over resources (Ely & Padovic, 2007). It may well be these processes that see women confined to the casual or contract teaching-only roles, where control over resources, in this case 'good jobs', is maintained.

Implications for policy and practice

There are several implications for policy and practice. Universities should persist with equity strategies and policies, as improvements are being achieved. On the other hand, senior management in universities must be aware of the negative equity implications of appointing large numbers of women in teaching-only, casual roles. These staffing decisions are made at lower organisational levels in a fragmented fashion, yet they have a significant, cumulative, negative impact on women. The issue needs to be addressed from a sector-wide perspective to ensure the mounting marginalisation of women is arrested.

This accords with Barrett and Barrett (2011, p. 153) who also argue that 'although not usually seen as a strategic matter, this low level activity is actually cumulatively pivotal to staff promotion prospects'. Union campaigns to reduce casualisation, although not specifically aimed at women, would have desirable gender impacts. The tendency towards teaching-only, or unbalanced, academic portfolios, hinders women's career advancement due to less time for research and lower research outputs (Barrett & Barrett, 2011). This of course assumes that research is and should remain the key criterion for promotion. One solution is to exhort and enable more women to do more research. Another solution would be to privilege teaching.

To counter marginalisation of women in teaching-only, casual positions, new ongoing, full-time or fractional, teaching specialist positions should be created to replace half of the casual numbers. These new positions could have their own professional career track through the levels, with new qualifications and training as teachers (perhaps rather than doctoral qualifications) and combine skills in educational design, learning technology and teaching practices. This opportunity could also be open to teaching-allied professional staff. Other arguments for this recommendation include efficient workforce utilisation compared to the conventional two semesters per year model, the demands for digital learning offered more frequently and more flexibly, the preferences of some casuals for ongoing employment (May *et al.,* 2011; Strachan *et al.*, 2012), massification of the sector, the impact of casualisation on teaching quality (Coates *et al.*, 2009; May *et al.*, 2011) and professional staff's interest in and commitment to teaching (Wallace & Marchant, 2011). Finally, as May *et al.* (2011) suggest, harnessing the large number of casual jobs and transforming them into ongoing positions could solve the biggest challenge facing universities: the ageing workforce and loss of experienced, senior academics.

These arguments could be criticised as perpetuating the managerialist ideology that has changed the nature of universities and resulted in the two-track division in the first place. Nonetheless, the nature of universities is transforming and will continue to do so (Bokor, 2012). Privileging the role of teaching specialist would be part of a paradigm shift in terms of what constitutes an academic

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and the qualifications, roles and responsibilities that are necessary. The argument that teaching-specialist positions should be created may be worrying for feminist scholars and attract resistance. It changes the fundamental nature of traditional universities and blurs boundaries between academic and professional staff. In reality these shifts are already manifesting. Newer universities do not necessarily operate on traditional lines, higher education now consists of many non-university providers who are teaching-only institutions and in the online space, academics are 'subject matter experts', who work with professionals as educational designers and teaching technology specialists to co-create, manage and deliver courses.

Thus the suggestions offered here are aimed at making accommodations to managerialism and other forces that will potentially improve the situation of female (and male) teaching-only casuals within this context. Further, it is argued that recognising the role of professional staff in teaching would benefit women, even if authors who subscribe to the traditional division between academic and non-academic staff (Carvalho & de Lourdes Machado, 2011; Goransson, 2011) would prefer to keep this status divide intact. This argument would seem hard to sustain on feminist grounds. Goransson (2011) discusses two specialised career tracks in universities: (scientific) research and management. The third should be teaching.

Limitations and further research

As with all studies, there are limitations and opportunities for further research, of which nine are identified here. First, the results only address overall numerical progress not the more subtle cultural process. Investigating the nuances of other social indicators (Eckstein, 2012) should follow. Women in casual, teaching-only roles could be interviewed to ascertain perceived advantages and disadvantages. Recent NTEU (2012) research with casuals throws some light on this question but the qualitative data does not specifically focus on gender. Power and gender identity in teaching-only roles need to be examined. In terms of the micropolitics, further research could investigate, with in-depth, qualitative analysis, both the staff who make these appointments (typically heads of departments possibly on recommendations from tenured academics) and the women who accept these appointments. How do gender identities and organisational processes interact to fill more teaching-only casual positions with females? What features of universities combine with women's identities to construct them as casual teachers? Comparisons between different universities in terms of processes

for appointing teaching-only casuals, as opposed to the across-the-board numbers reported here, might answer these questions.

Second, the results are limited to staffing in universities, not other higher education providers. It seems likely that due to their teaching focus these other providers may have a higher concentration of females in teaching. On the other hand, since they do not do research and teaching is the 'main game', it may be that males dominate. Examining these other institutions could add to understanding of women's status in the whole sector. Third, the results for status by academic level do not include research-only staff as the focus was on teaching. Including research-only would address the overall teaching and research gender balance. It is likely that doing so would render the results even less favourable for women, given men's domination of research. Fourth, the results for the professoriate should be disaggregated between the two levels, as combining them conceals the lower proportion of women who are full professors.

Fifth, extending this research beyond Australia would add valuable international perspectives and indicate whether the trends are national or universal. Sixth, the professoriate is the traditional senior level in universities and fulfils an iconic function. Nonetheless, it would be timely to re-examine the number of academic women in management positions not just academic levels *per se*. Seventh, changes in the numbers and roles of women in the professional stream, over the same period, should be researched, to create a more complete picture and honour calls to remove apartheid between academic and professional staff.

Eighth, although not uniform across Australia, academic workloads within traditional teaching-plus-research tend to be classified as teaching-focussed, research-focussed or balanced and are a matter for individual universities to decide. These arrangements differ from the teaching-plus-research, teaching-only or research-only divisions in the data used here. Analysing workload allocation models and gender differences within teaching-plus-research could be useful to examine further whether the gender divide also exists within the traditional academic role responsibilities. Ninth and finally, it would be worthwhile revisiting and replicating this research in five, ten and twenty years to ascertain if the trends identified continue to full parity across the academic roles and levels, or even to the point where women represent the majority of teaching-plus-research roles and the professoriate. Since this research makes specific, time-based predictions they can be subsequently checked. It may be that the critical mass acceler-

ates change or that resistance and micropolitics ensure that the current male hegemony prevails.

Conclusion

The research is justified as an update on the status of women in Australian universities. In terms of gross numbers, progress was evident for students, staff overall and teaching-only academics. Women are advancing in the professoriate and it is possible that true gender equity may be achieved in another generation. Gender numbers have improved but mainly by recruiting women into easy-to-fill, casual, teaching-only roles, thus creating an appearance of equity without the ongoing actions needed to create sustainable change. The policy context appears to be working, but the slow rate of change in the pipeline, critical mass and career track suggests other mechanisms at play.

The main implications for theory were that both the pipeline and critical mass usefully account for some of the results as well as explaining implications for women who are not in the pipeline, the leaking pipeline and the inability of casual teaching-only women to form a critical mass. Micropolitics and the interaction between organisation systems and gender identity may also be at play. The main policy recommendation is to create ongoing, full time or fractional career-track, teaching specialist roles for academics and professionals. This is fraught with challenges in terms of both entrenching the subordinate status of women and questioning the inherent nature of universities as research-based institutions. Nonetheless, today's managerialist pragmatics, including massification and quality concerns, justify such an idea.

In summary, that females make up half of university students and overall staff numbers implies that equity has been achieved, but this more fine-tuned, nuanced examination shows that the raw numbers mask ongoing, systematic under-representation of academic women in the desirable career-track roles and higher status levels. The gendered nature of higher education and the traditional division of labour are still evident. The latter is becoming more pronounced with the concentration of women in teaching-only, insecure roles. There has been considerable progress but also further segmentation and marginalisation.

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