

When Research Works for Women

Project Report

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Cover:

Melinda Harper,
Untitled 1993,
oil on canvas
61.0 x 51.0 cm

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What women say about doing research

I think that probably the passion comes first and then I devise a strategy to implement that passion.

I'm now involved with a whole group of people that I never knew before and it's just fantastic because their work is so different from what I do. . .

I think we sometimes make too much of the interruption of children and sure, they interrupt you, but they also provide you with an incredible balance and perspective on life.

But I find that the science never leaves me. I've got a notepad and pen in my car and I'm writing continually on the way home. . .

I don't want people to judge me as a successful woman – I want to be judged as a successful researcher regardless.

There are other measures of success in that I also feel successful in the sense of having been able to launch other people's careers or have a role to play in nurturing the next generation of researchers.

I cannot do research stop start, I need the time. You can't say I'm going to do it Monday morning and then I'll do a bit on Wednesday afternoon and then I might have all day Friday. I can't do it that way. I sort of need blocks of guaranteed time

I had a very productive postdoc where I got some big papers out and the whole advantage of that is that that sets you up for getting a position back here.

Various people have mentored me at various stages of my career, both men and women, the networks that I've put together have been very important.

I have learnt to be highly organised and highly efficient.

And so that is where I can just feed the research that I'm doing straight into the classroom and I just, I love it, the students love it, there's a lot of currency in what I do and it goes straight into the classroom and it's a really popular unit.

But the things that really made a difference were I think contacts, just getting to know people.

I took full advantage of what was available, I made sure that I got papers prepared for conferences, I went to overseas conference every year, the local conference whenever there was one and they supported me in that respect.

Getting the ARC grant was the biggest boon to my career ... I think that sometimes you should hang out for these things.

Something that is very strongly talked about within our department is that you go for your internal funding first to show that you can get a bit of track record.

I get really edgy if I can't get time to have research. The only time I'm really calm is when I'm actually sitting down doing my own reading and doing my creative stuff. I mean I really, really enjoy it.

I mean the kind of thing I'm delighted with is the idea that I can look back on my career at the end of it and say, well, you know, I didn't just build a better widget, I made some people's lives better.

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Executive Summary

This report brings together findings from a qualitative study of a group of Monash University's top women researchers. While the study specifically focused on women's research experiences, the recommendations arising from the findings point to ways in which the research environment at Monash University could be improved to the benefit of all staff engaged in research. The report identifies:

- factors that are critical to the building of strong research track records
- areas where the university's policy or practice might be improved to enhance the research capability of staff
- key recommendations for action based on these findings
- a set of strategies other researchers might utilise to improve their research productivity

Among the factors that were found to be critical to women's research performance were: the degrees of passion and excitement they felt for their research work; having good international connections and research networks; having effective mentors and supervisors; participating in collaborative or team research; developing effective grant seeking skills; supervising postgraduates; having a close teaching and research nexus; having the capacity to concentrate research and teaching time; high levels of flexibility in the workplace; regular access to Outside Studies Program leave; improved maternity leave provisions and family friendly work units; moderate involvement in administration and having the capacity to seek help together with an effective working style.

Areas of policy or practice where potential for improvement was identified included: the fragmentation of research time; the area of work/life balance; the research and career planning dimensions of the current Performance Management Scheme; substantial administrative loads for top performing researchers; the area of communication of policy (especially in relation to promotion); job security for research-only staff on grant money; isolation of research-only staff, career development and advising; administrative support and the provision of research facilities; and elements of gender discrimination.

Advice and strategies offered to other researchers to improve research productivity included: understand why you want to be a researcher; research what interests you; establish a track record early; have a clear plan about what is to be achieved; develop a profile both within and outside the University; utilise the opportunities presented; collaborate with others; make time and space for research activities; know when good enough is good enough and don't lose sight of the important things in life.

Recommendations

Workload Models

- Review faculty/school/unit workload models to ensure that the models in place provide adequate recognition of research activities, including publications, grant monies and HDR supervision.

ACTION: Deans and Heads of Schools/Departments

- Develop transparent workload formula calculations which reflect expectations according to level so that there is an appropriate distribution of teaching, research and administration amongst staff in departments and schools.

ACTION: Deans and Heads of Schools/Departments

Teaching and Research

- Include in Faculty reviews of curriculum the investigation of options to maximise the teaching and research nexus.

ACTION: Associate Deans (Teaching) and Associate Deans (Research)

- Audit the different practices university-wide and sector-wide with respect to the concentrating of research and teaching time in order to establish a set of models that could be implemented on a wider basis.

ACTION: Associate Deans (Teaching)

Performance Management Scheme

- Modify the Career Development Plan section of the Performance Management Scheme for academic staff to identify the stage at which a staff member is on the promotion cycle. This will then necessitate discussion of their career directions and steps towards promotion. The Career Development Plan should contain the staff member's Research Program Plan and dovetail with the Research, Scholarship and Creative Activities component of the Engagement Profile.

ACTION: Divisional Director, Human Resources and Manager, Staff Development Unit

- Investigate relationship between the Performance Management Scheme and Staff Workload Schemes to ensure that the relationship is meaningful and that there are no competing directives within these two schemes.

ACTION: Divisional Director, Human Resources and Deans

Support for early career researchers

- Establish early career researcher networks (which include postdoctoral researchers and other staff on research fellowships) at faculty level to provide peer mentoring opportunities and reduce the likelihood of isolation.

ACTION: Associate Deans (Research)

- Ensure all early career researchers receive relevant professional development and career planning from appropriate staff such as performance supervisors or heads of units/schools.

ACTION: Associate Deans (Research) in conjunction with Departmental or School level Research Coordinators

- Provide early career researchers with a range of professional development programs (how to attract funds, publish and promote research) to support their research capacities.

ACTION: Director, Research Office

- Review access to research travel and conference funds for early career researchers to enhance their abilities to establish international connections.

ACTION: Associate Deans (Research)

- Include in induction programs for academic staff (including research-only staff) clear information on the university's research objectives, its research and research training plan, research targets and research support services.

ACTION: Divisional Director, Human Resources

- Review availability and types of internal funds to ensure a range of small and large funds are available to early career-researchers so that they have an opportunity to develop or strengthen a research track record.

ACTION: Associate Deans (Research)

- Encourage senior academic staff applying for large external grants to include more junior staff, particularly women, on their research teams.

ACTION: Associate Deans (Research) and Director, Research Office

Research-Only Staff

- Investigate ways to support research-only staff to continue critical research programs that are subject to rolling fixed term funding.

ACTION: Deputy Vice-Chancellor (Research)

- Incorporate into the university's academic promotion procedures a process for promoting research-only staff on grant funding.

ACTION: Senior Deputy Vice-Chancellor

- Investigate status of maternity leave provisions for research-only staff on grant funding to clarify and, if necessary, develop opportunities to bring maternity leave benefits into line with other staff at Monash University.

ACTION: Divisional Director, Human Resources

Work Life Balance

- Investigate the application of work life policies in relation to academic staff and develop ways to tailor these to fit the specific needs and circumstances of academic staff.

ACTION: Divisional Director, Student and Community Services

- Promote the university's Work Life Strategy and its potential benefits more widely.

ACTION: Divisional Director, Student and Community Services

- Include work life considerations and information about the implementation of flexible work options in Head of Department/Manager training.

ACTION: Divisional Director, Student and Community Services

Communication of Policy

- Enhance communication of key university policies and procedures to ensure that academic staff in faculties have access to information affecting their employment.

ACTION: Divisional Director, Human Resources and Deans

Recognising Women in Research

- Include the achievements of women researchers in any material promoting faculty research activities.

ACTION: Associate Deans (Research) and Faculty marketing staff

- Include in any 'research week' celebrations a focus on the achievements of women in research.

ACTION: Deputy Vice-Chancellor (Research), Director, Research Office and Director, Equity and Diversity Centre

- Develop publications, such as a website or booklet, that profile women (at all levels) in research at Monash University to highlight the achievements of women and provide role models for other women.

ACTION: Deputy Vice-Chancellor (Research), Director, Research Office, Director, Equity and Diversity Centre, University Marketing and Public Affairs

Ongoing Support for Women Researchers

- Continue offering the Advancing Women in Research seminars and the University-Wide Mentoring Scheme for Women.

ACTION: Director, Equity and Diversity Centre

- Review utilisation of the Online Senior Women's Register and promote more widely with a view to it becoming a key resource for women at all levels seeking career development mentoring and support.

ACTION: Director, Equity and Diversity Centre

- Investigate ways of supporting women returning from maternity leave to re-establish their research activities and programs.

ACTION: Divisional Director, Human Resources

Outside Studies Program (OSP)

- Investigate ways to provide clearer information on the nature of the OSP scheme and criteria for successfully applying.

ACTION: Deputy Vice-Chancellor (Research)

- Incorporate information on OSP policy and procedures into academic staff induction programs and material.

ACTION: Divisional Director, Human Resources and Deans

Administrative Workloads

- Ensure administrative roles and duties are distributed equitably across staff and that such duties are reflected appropriately in workload formulae.

ACTION: Deans and Heads of Schools

- Encourage women to discuss administrative workloads and their relationship to research output with Performance Management Supervisors

ACTION: Performance Management Supervisors

- Investigate optimal administrative structures to ensure that academic staff are relieved of administrative and clerical work that is best undertaken by support staff with appropriate skills.

ACTION: Deans and Faculty Managers

- Investigate whether forms of research support in place of, or in addition to, teaching relief should be offered to senior staff undertaking significant administrative loads.

ACTION: Deans and Heads of Schools.

1. Women and research: what the literature tells us

There is a large and growing body of Australian and international research on women and higher education that enables us to contextualise this project on women and research. Despite significant changes in the Australian higher education sector in recent decades which have seen increasing numbers of women entering academic employment, women remain under-represented in senior academic ranks (Levels D and E). Given that research performance is often a central factor in promotion to senior levels, the relationship between gender and research activity is of critical importance. Studies show that women are still less likely to head research teams, apply for research grants and often have lower publication rates than their male counterparts. Women in the early stages of their academic careers and those resuming their careers after a break remain particularly vulnerable to lagging in research output relative to their male peers (Asmar, 1999). It is perhaps not surprising, then, to find Murphy (1995) arguing that measures are needed to address women's profiles in research more than in any other area of university activity.

Studies of gender and research in Australia and overseas attribute women's lower research performance to a range of factors. Schneider (1998) for example, argues that women are expected to do more teaching, advising and administrative work which impedes their full participation in research. Similarly, Chrisler (1998) states that women have higher teaching loads and do more pastoral care of students while men focus on research output. Women's choice of discipline area is also seen as a key factor, with female academics being concentrated in areas less likely to attract external funding or which do not lend themselves to traditional models of research (Kirkpatrick, 1997). Women's tendency to have less secure employment, less access to academic networks and less confidence are also seen as contributing factors (Cox et al, 1995; Dean et al, 1996; Valian, 1985; Chrisler 1998). Work life pressures are seen to have a dramatic impact on women's research capabilities with Probert (2005) arguing that research is the only thing that can be put off in a schedule filled with teaching, research, administration and children.

Many of the studies above attribute the difference in research performance to a long-standing division of academic labour that is based on gender. Bagilhole and White (2003) argue that the differentiation of academic roles based on gender has women concentrating on teaching and administration which allows men to concentrate on research and publishing – activities that receive the highest rewards in terms of status, promotion and financial reward. Moore (2003a and 2003b) challenges the gender neutrality of the prevailing model of the 'ideal worker' or 'good academic', arguing that such constructions tend to institutionalise male experiential norms. Women are caught in a difficult position of trying to 'perform' like men while negotiating traditional gender stereotypes relating to the division of labour. Similarly, Park (1996) argues that universities resemble traditional patriarchal families where men are the 'bread winners' and women carry out the routine, unacknowledged background maintenance work. She further argues that instead of encouraging women to act like men to increase their research productivity (that is, do less teaching and pastoral care), we should instead be problematising the gendered division of labour and the way it influences promotion and employment criteria.

Current data on the conditions that favour high research performance in women point to a diverse range of personal, professional and institutional factors. Taylor and Martin (1987) suggest that a minimum commitment of ten hours a week for scholarly work is required if productivity is to be maintained. Acacio et al (1996) found that high levels of personal engagement with the research area, a vibrant research environment, appropriate research infrastructure, enjoyment of the research process itself, quality feedback, and public recognition of achievements all rated highly among the Australian women researchers they

studied. Indeed, a number of researchers have linked passionate interest in their research topics and congenial methodologies to improved research productivity (Gallos, 1996; King, 1996). Landry, Traore and Godin (1996) suggest that working in collaboration may also increase research productivity, and not necessarily just for those in the sciences or in fields where collaboration is the dominant mode of working. Numerous studies have pointed to the benefits arising from structured programs focusing on building women's research capacities (Devos, 2001; Godden, 1996) and from formal and informal mentoring (Groombridge and Worden, 2003; Higgs, 2003). The capacity for women to organise their lives around their research and writing and to 'make productivity a way of life' was identified by Chrisler (1998) as a further critical factor, although she found herself questioning how many women could actually achieve this in practice. Finally, countering the claim that teaching may distract from or undermine women's research performance, the interaction between teaching and research has been identified as vital and likely to lead to excellence in both (Curthoys, 1995).

The *When Research Works for Women* project took a new and different approach to the question of women and research at Monash. Rather than identifying the challenges that women face in doing research, it focused on those factors contributing to successful research careers. The project utilised qualitative interviews to investigate the 'researcher biographies' of a select group of the university's leading women researchers. From these 'researcher biographies' we learnt about patterns of research training, the choices researchers make along the way and what different research careers and career stages look like. As many of the women interviewed have research training responsibilities, we also looked at the ways in which they go about shaping the careers of future researchers in their fields. Finally, we gathered information and insights that other women can use to develop and strengthen their own research profiles.

2. Methodology

2.1 Aim

The aim of the *When Research Works for Women* project was to investigate the specific pathways, strategies, circumstances and research environments of successful female researchers at Monash University to learn what has enabled these women to build strong research profiles. Two key outcomes of this research are:

- A series of recommendations for new policy and support structures that would enable the maximum number of women staff to contribute more effectively to Monash's aspirations to be among the leading Australian universities for research performance; and
- The provision of models and strategies for other women to adopt to assist with increasing their research productivity.

2.2 Participants

An initial list of 60 strong and/or outstanding female researchers was compiled with the assistance of the Monash Research Office, Associate Deans (Research), the Women's Leadership and Advancement Scheme, the project's Advisory Group and from information available on the university's website. This list reflected the diversity of research experiences and research environments at Monash University.

From this list, 30 interviewees were chosen to ensure that the final study cohort included women from every Australian campus of the university, from each faculty, every academic level from A to E and a balance of research only and teaching and research academics.

Length of time at Monash ranged from one year to more than thirty years.

All participants were active researchers and many were national or international leaders in their respective fields.

2.3 Method

Potential interviewees were initially invited by email to participate in an interview. An explanatory statement which included information about the aims of the project, what it would involve and a guarantee of anonymity was included in this original invitation.

Upon agreement, an interview time was set and an interview location agreed upon.

A total of 27 women were interviewed and we received one detailed email response from a senior female researcher.

The interviews were conducted between 6 May and 17 June 2005.

Dr Zoë Morrison conducted 17 of the interviews and Dr Maryanne Dever conducted 10 interviews.

Semi-structured interviews were used.

Interviews were of 1 to 1½ hours duration.

Interviews were taped, transcribed and then coded according to emerging themes.

No names were recorded on the transcripts and the record of participants was kept separate from the transcripts.

3. Women and research at Monash University

The last major investigation of women and research at Monash was undertaken in 1997 for what was then the Equal Opportunity and Employment Equity Unit (see White, 1997). That report, which focused particularly on staff at levels A and B, identified a range of issues including the challenges facing women from pre-merger institutions getting started in research and career development structures for early career researchers with significant teaching and administration loads. Among the recommendations were better university-wide induction for academic staff, the introduction of mentoring schemes, and the provision of workshops on research skills and research support for women. Initiatives such as the Advancing Women in Research seminars, launched in 2003, and the university-wide mentoring scheme for women have been introduced to address these issues.

Current statistics¹ on research grant application and success rates provide some evidence of women's continuing under-representation in the research activities of Monash University.

Table 1: Monash Internal Grants Awardees 1999-2004 by gender

Grant	Gender	1999	2000	2001	2002	2003	2004	Total	%
Logan Fellowship	Male	5	4	4				13	
	Female	1	1	1				3	18.75
MRF New Research Areas	Male					8	6	14	
	Female					0	4	4	22.2
MRF Project Grants	Male					16	5	21	
	Female					1	4	5	19.23
Monash Fellowships	Male					1	4	5	
	Female					0	1	1	16.66

Table 1 shows that in respect to Monash University internal grant schemes, women accounted for 3 out of 16 Logan Fellowships awarded across 1999-2001 (18.75%). Women accounted for only 4 of the 18 MRF New Research Areas awarded in 2003 and 2004 (22.2%) and only 5 of the 26 MRF Project Grants (19.23%) in 2003 and 2004. For the Monash Fellowships, women accounted for only 1 of the 6 fellowships awarded between 2003 and 2004.

Table 2: Monash NHMRC Grant Awardees (Chief Investigators) 2004 by gender

Grant Type	Female	Male	Total	%Female
Scholarship	28	8	36	77.8
Training Award	17	13	30	56.7
Career Development Award	4	5	9	44.4
Research Fellowship	3	21	24	12.5
NHMRC Project Grant	17	69	86	19.7
Programs	0	6	6	0.0
SRDC	0	3	3	0.0

¹ Data supplied by the Monash Research Office in July 2005.

Table 2 shows that in 2004, 77.8% of NHMRC Scholarship recipients and 56.7% of NHMRC Training Award recipients were female. Women received nearly half of all NHMRC Career Development Grants (4 out of 9 or 44.4%) in 2004 but accounted for only 3 of 24 NHMRC Research Fellowships (12.5%). Women accounted for only 17 of 86 awardees for NHMRC Project grants (19.7%) and no NHMRC Program awards or SRDC awards went to women at Monash in 2004.

Table 3: ARC 2004 Discovery Project Grant Applications (Chief Investigators) by gender

Faculty	Female	Male	Total	% Female
Art and Design	0	0	0	0
Arts	19	25	44	43.2
Business and Economics	6	11	17	35.3
Education	3	3	6	50.0
Engineering	4	38	42	9.5
Information Technology	2	15	17	11.8
Law	3	3	6	50.0
Medicine	7	22	29	24.1
Pharmacy	1	6	7	14.3
Science	8	39	47	17.0
Total	53	162	215	24.6

Table 4: ARC 2004 Successful Discovery Project Grants (Chief Investigators) by gender

Faculty	Female	Male	Total	% Female
Art and Design	0	0	0	0
Arts	5	16	21	23.8
Business and Economics	2	5	7	28.6
Education	3	2	5	60.0
Engineering	1	11	12	8.3
Information Technology	0	1	1	0.0
Law	2	0	2	100
Medicine	4	1	5	80.0
Pharmacy	1	1	2	50.0
Science	1	13	14	17.1
Total	19	50	69	27.5

Grants to commence in 2005

Tables 3 and 4 show ARC Discovery Grant application and success rates by gender for 2004 respectively. University-wide, women appeared as chief investigators on 24.6% of

applications for ARC Discovery Grants in 2004, although higher application rates for female chief investigators were recorded for specific faculties such as Arts (43.2%), Education (50.0%) and Law (50%).

University-wide, 27.5% of successful ARC Discovery Grants went to female chief investigators in 2004. Higher success rates for female chief investigators were recorded for the faculties of Education (60.0%), Law (100%), Medicine (80.0%) and Pharmacy (50%).

Table 5: ARC 2004 Successful Linkage Project (Round 1 and 2) (Chief Investigators) by Gender

Faculty	Round 1				Round 2			
	Female	Male	Total	%F	Female	Male	Total	%F
MUARC	0	1	1	0	0	0	0	0
Arts	1	1	2	50.0	2	1	3	66.7
Business and Economics	0	2	2	0	0	1	1	0
Education	0	0	0	0	0	1	1	0
Engineering	0	3	3	0	0	3	3	0
Information Technology	2	1	3	66.7	0	2	2	0
Law	0	1	1	0	1	0	1	100.0
Medicine	0	2	2	0	1	2	3	33.3
Pharmacy	0	0	0	0	0	3	3	0
Science	0	0	0	0	0	2	2	0
Total	3	11	14	21.4	4	15	19	21.0

Table 5 provides a gender breakdown for successful ARC Linkage Project Grants (Rounds 1 and 2) for 2004. University-wide, women accounted for 21% of successful ARC Linkage Project grants in both Round 1 and Round 2. Success rates by faculty show that in both Round 1 and 2 women in the Faculty of Arts represented at least half of the successful recipients. In Round 1, two thirds of recipients in the Faculty of Information Technology were female and in Round 2, the only recipient in the Faculty of Law was female.

In terms of research leadership at Monash University, in 2004 women occupied 42 (17%) of the 247 appointments at professorial level and 58 (20%) of the 247 appointments at associate professor/reader level. In 2005, 3 out of 10 Associate Deans (Research) are women and women also hold 2 out of 10 posts of Associate Dean (Graduate Studies), as well as the position of Deputy Vice-Chancellor (Research).

4. The findings: what is working for women researchers?

4.1 The passion and the strategy

The single most compelling finding from our interviews was the extent to which participants' research performance was a product of their passionate engagement with ideas and knowledge, something many traced back to their undergraduate or postgraduate studies when they got 'hooked' on research. While none underestimated the role of ability, hard work, and years of training in the development of their successful track records, passion, excitement and curiosity were repeatedly cited as critical to their endeavours. Whether the women talking about the 'beauty of finding new solutions' or what it was about their work that gave them 'the high', nearly all spoke of 'something internal...that drives you to do [research]'. One woman researcher gave the following explanation:

Some of the people who I work with in my field are sensational and that kind of intellectual milieu is fantastic and I love that. I love the graduate students that we bring in to it, I love all the possibilities, I love being able to move from, if you like, pure theory into policy analysis and application. I love being able to do those transitions...

Another senior woman stated:

I had to write a reference for somebody the other day and they asked me whether this particular person had passion and commitment and I wrote in the testimonial that, you know, anybody who works in science and works the hours and does what we have to do has to be passionate and committed, because you know you'd be doing far more glamorous jobs and making far more money if you were doing something else.

In short, for the majority of women interviewed their high performance in research was generated by their passion and commitment to the work and this was generally reported to be a far more significant motivating factor than organisational imperatives such as directives to increase productivity or secure more external funds. Several women were quite clear that without that passionate connection they wouldn't achieve the same level of application:

Now all my work is about passion, whether it be my research or my teaching or whatever, that's all it is, because otherwise I can't get out of bed in the morning. I'm just not calibrated in a way that would allow me to get up if I didn't really feel strongly about it. And I did once write a report that I didn't actually care about and it was like pulling teeth.

I think from now on I would be applying [for grants] for projects that I had a strong research interest in. That would be what would motivate me to apply.

All were realistic about the importance of developing a research program and track record that would see them well-positioned with respect to external funding opportunities, but most tried to avoid taking on projects or working in areas simply because the funds were there if they had no real engagement with the research involved. It was critical, therefore, that they found ways to bring passion and strategy together, because as one researcher noted, 'you always have on your mind also what's going to work here in terms of publications and funding'.

Another participant talked of how 'the passion comes first and then I devise a strategy to implement that passion', while another described how in her research 'strategy and passion has been the same for a long time...They are now inseparable'. This meant, in short, they had to become adept at turning their passionate interests into opportunities.

The experience of these women researchers suggests that developing ways for academic staff more generally to maintain or re-establish their initial passionate connections to research ought to be considered alongside performance targets and/or strategic directives for generating enhanced research performance.

4.2 International connections

International connections were important for successful women researchers at Monash. In fact, almost all the women we interviewed had some sort of network of colleagues working in their field overseas. Often this came through having worked in overseas universities, but this was not a necessity. One particularly successful early career researcher we spoke to had decided not to work overseas, but had established international connections through her supervisor and through travelling extensively herself. Overall, successful women researchers simply acknowledge that academe is an international job. To be very good, you usually have to have international connections, which you maintain and use well. Often this might mean travelling regularly to make and sustain research relationships. Travel grants were often central to this, although some women we interviewed were so determined to forge international connections that they had funded extensive travel on their own. One senior researcher described to us how at an earlier stage in her career she had funded an overseas lecture tour 'on her credit card', because of the importance she ascribed to these connections.

Younger career researchers were helped in making international connections through the assistance and mentoring of successful senior academics. Supervisors encouraged them to make trips, and directed them on whom to approach, or introduced them to people when they were at conferences or visiting. 'I make sure they know what's going on, I make sure they meet people who are coming through and sit down and have time alone with them', one successful senior researcher said. 'International interaction is vital for a successful research career in my area at any rate. I encourage my group; I try and send my group overseas at least once during their three years. It's vital I think'.

Attending conferences overseas was a major factor for many in fostering international connections. On the other hand, some researchers thought that conferences alone were not enough, and that personally visiting someone in a university or institution overseas for a dedicated period of time was preferable (particularly in the Sciences). In this way, taking the initiative in making international connections was emphasised. For example, one researcher said, 'I wrote to them and said, I've read your work, I like what you're doing, can I please come and do a post doc with you and they said – sure'. Being on committees for international conferences was also identified as an effective way of establishing such connections.

4.3 Networking

Closely related to international connections is the practice of networking. Whether informally and formally, consciously or even unconsciously, successful academic women network. Some women were very direct about networking. 'I seem to have a knack at networking', one researcher said. 'I think it's sort of an extension of you being a social being, and I have found a good set of people around the world'. Others instead described occasions when they approached another academic to have a 'conversation', which they didn't see as 'networking', but which clearly had the same positive results. Some talked about simply making 'good friends' with people in their field, or 'contacts – just getting to know people'. Such networks are defined as not only providing a specific piece of help in relation to one's work, but are also helpful in a more general sense with respect to personal recognition, encouragement and a sense of 'community'. One postdoctoral researcher even recommended some 'cold calling'. If she read someone's work and admired it, she was prepared to go ahead and contact them:

I've downloaded an article and...I wrote to the author and...he was kind enough to write back to me and send me some articles and that's the sort of thing that keeps you going.

Networks were particularly important if an academic woman was not feeling supported in her own department or if she was the only person at the university working in a particular area. For example, one senior woman talked of a 'beautiful e-mail' she received from a colleague elsewhere describing her 'infectious enthusiasm' and the positive effect such enthusiasm had on her students. These sorts of boosts were another, perhaps less appreciated, aspect of being well networked.

4.4 Collaboration, teamwork and surrounding yourself with good people

For the vast majority of women interviewed, collaboration and team work were central parts of their success. How could you get to know 'the ropes', if you didn't collaborate with key people, they argued. This is interesting because it runs counter to the traditional image of academic work as a solitary, independent pursuit. It appears that for many, the days of the 'lone ranger' academic are gone. Successful women researchers talked instead of collaborating with 'great teams of people' with whom they very much enjoyed working. One participant put it this way:

It's boring doing research on your own. You don't get to talk and bounce ideas off. [Working in a team] you can share workload...there's all sorts of benefits, but for me the greatest benefit is that you get to share ideas with people.

For women in the Humanities, where working in larger teams is less common, they might still have a particular working relationship with another key researcher or collaborator. One postdoctoral fellow described how 'my colleague...was very supportive in the sense that she was the one saying let's put in this project together'.

A key pattern that emerged was that successful academic women surround themselves with 'good people' – people they like and respect: 'You really need to work with people you respect if you want to do team work'. Often these are 'long term relationships' that form a significant part of a researcher's working life. For some, their best friends and even, in some cases, their husbands or partners were the people with whom they collaborated and worked on a daily basis. This is possibly associated with the fact that so much of their time was spent working hard on the work that they loved, that it was quite natural that these people were surrounded by others who shared that passion.

At the same time, however, a number of interviewees also made the point that while team work was clearly beneficial, it was also crucial to distinguish yourself as an individual researcher in your own right. That is, it is important in career terms that you be recognised, known and acknowledged within the field for your own work and that you develop your own profile (see also 4.5 Role models and mentors on this point). For this reason, one successful researcher even advised us that early researchers should avoid collaboration where it meant doing lots of work for a senior academic who might then take the credit for it. 'Don't hitch your wagon to someone else's star', was how another woman put it. The process of developing your own profile can be difficult and complex. As one interviewee reported: 'I get criticised when I write an ARC application if I'm too collaborative with [a colleague] because he's my former supervisor and I get criticised for not being independent enough. But then you'll have another person telling you that you're smart to do this. So it's tricky'. Certainly one of the highest profile

researchers we interviewed was clear that at a particular juncture in her career she consciously added a new area to her research activities to distinguish herself from her long-term research partner and 'to prove to myself and to others that this is not just me tagging onto this person's coat tails'. It is clearly important also for the university to give credit where it is due. One woman described acute frustration over her male role model/mentor getting all the credit for her own research work (a situation she protested about and had successfully resolved). So it seems that successful collaboration and team work requires women to manage these relationships so that they are beneficial to the careers of all those involved.

4.5 Role models and mentors

Successful women researchers often had at least one key mentor or role model. A mentor or role model was defined as someone who encouraged them and believed in them, worked closely with them, and actively 'cared' for their career. Career care included helping establish their international connections and networks (as mentioned above), applying for research grants with them, and giving them strategic advice. For some women, this was a long and close professional relationship. For others, however, this could even have been a one-off encounter with another person who provided a crucial boost. One researcher, for example, described a close personal working relationship with her female mentor/role model. They saw each other almost every day, and it is clear that this relationship was a key component in this young woman's success. For another, it was simply a piece of advice she was given by a visiting lecturer after approaching them at a conference that turned her career around. Indeed, some women simply experienced mentoring as 'getting advice' from the right people, while one talked of being deeply inspired by her mentor's work, although she received little direct guidance from them. Role models and mentoring obviously took diverse forms, but were often an important element in these women's research success.

Interestingly, role modeling and mentoring relationships were usually relationships which developed informally. No interviewee reported that an important role model or mentor had originated from a formal mentoring scheme, although several who had participated in such schemes spoke favourably of them. If the mentoring relationship is going to be one which is a long-term and close relationship, it has to be genuine, these women said, and a natural affinity must exist between the two people. Some pointed out the importance of having a female role model: 'There are some role models that are men but you know they're not accurate role models because you don't do – they don't come at it from the same way'. On the other hand, the absence of female role models wasn't necessarily a drawback. A significant number of the women interviewed had had very important male role models and mentors or male heads and supervisors whose good guidance and leadership had been critical to their career success.

It is also important to point out that while sometimes well mentored themselves, it was very common to find that more successful senior academic women (and often the most successful ones) were themselves outstanding role models and mentors. 'I try to help younger members of staff, particularly women. I go out of my way to help them. I encourage them', one said. They actively helped other women and men researchers with their careers, and in fact saw this as a central part of their work. Some academic women even defined their own success through the mentoring and assistance they have provided to others: 'I also feel successful in the sense of having been able to launch other people's careers, or have a role to play in nurturing the next generation of researchers...we can make differences that really count'. Others were particularly conscious of not taking credit for work which wasn't theirs

and modeled their good practices through a desire not to reproduce the bad practices they had either witnessed or experienced:

I've watched some very bad behavior in the males around me and I've thought no I'm not doing it that way...Bad behaviors are taking credit for this that they have not done...I don't care who it is that comes up with an idea, they'll be the first author on a paper and they'll run with the project, they'll present the project.

It was indeed very interesting the extent to which so many of these successful academic women appeared to be models of best professional practice in their fields.

4.6 Supervising postgraduates

Interviewees were extremely clear in identifying the benefits for their own research careers of supervising postgraduate students. This tended to be the case irrespective of their disciplines and more senior interviewees reported carrying comparatively large supervision loads (9+ students). In areas such as science and medicine, postgraduate students were talked about as an integral part of larger research programs because their research was often closely connected to that of their supervisors. As one professor commented, when it came to the latest literature in her field, 'I get my students to keep me up to date'. Some spoke in quite strategic terms of recruiting graduate students to work in their areas of expertise, explaining to potential students 'this is the area that you'll get the most benefit out of me'. Many felt that attention paid to postgraduate students and the research they conducted fed into their own work in productive ways. So critical were these inputs thought to be that one interviewee suggested that 'for my first three years I only had one PhD student and that obviously holds back your research'. The dynamic exchange of ideas and insights was only one of the benefits outlined. Opportunities to co-author work and to mentor students through the early phases of scholarly publishing delivered positive experiences for both parties. What was interesting to note, however, was how many interviewees outlined the transparent and ethical approaches they had developed for collaborating and publishing with their graduate students, often as a reaction to poor practices they had experienced when students. While none underestimated the hard work involved in effective supervision of postgraduate students, some of the greatest satisfaction reported was in terms of the rewards for time spent with those students. One distinguished professor named her greatest achievements as

...taking on a grad student who is not that confident, not too sure about themselves but who clearly has the capacity to do good work, and then transform[ing] them over a three, three and a half year period into a solid independent researcher who can go and get a job wherever they want — and that is why I do what I do.

Others spoke enthusiastically of the very real satisfaction they derived from contributing to building a new generation of scholars:

As an academic one of the best things that you can do is to train students, and when you see students really grow and flourish and blossom and go out and have productive careers that's very, very rewarding, and that certainly is an accomplishment.

I have wonderful postgrad students who are incredibly talented and my discipline is in the safest hands in the future.

One interviewee who did not have the opportunity to supervise many – or indeed any – postgraduate students in her current position cited this as a key reason why she would consider applying in the near future for a new position, possibly outside Monash.

4.7 Teaching and research nexus

While teaching is often popularly represented as a distraction from, or impediment to, research, this view was not reflected among the majority of the teaching and research academics interviewed. While a few did identify teaching loads as a challenge, on the whole, teaching was talked about in extremely positive ways with many identifying clear benefits for their research coming from time spent in the classroom and vice versa. In the words of one younger academic, 'I wanted the mixture of research and teaching'. A few staff designated as 'research only' had in fact asked for and been given some teaching duties. Often interviewees were keen to identify their strengths as teachers, not just as researchers. One or two pointed to teaching as a helpful break from research activities, especially where animated exchanges with students countered the isolation of lab work, or where successes in the classroom could make up for the lack of breakthroughs on the research front. Some also talked about teaching as adding structure to their time. What was evident, however, was that the majority of respondents — and certainly those with the most positive comments — had a close teaching and research nexus, such that their core teaching activities mapped closely onto their areas of research expertise so the two activities could feed into one another. This meant, as one interviewee put it:

I can just feed the research that I'm doing straight into the classroom and I just, I love it, the students love it, there's a lot of currency in what I do and it goes straight into the classroom and it's a really popular unit.

There was general support for schemes to enable active researchers to 'buy themselves out' of teaching from time to time, but interestingly, several high profile researchers who were no longer required to spend very much time in the classroom did not necessarily see this as a benefit, either for themselves or for the students. In the first instance, they felt it limited their opportunities for contact with potential honours and postgraduate students whom they would like to recruit to work with them. The following comments were typical of this point of view:

Interaction between the undergraduates and the post graduates is really quite important actually and crucial for...building up a good research group.

It worries me that we don't have enough researchers teaching in our undergraduate program and I know that I was heavily influenced by people who were strongly research orientated, and if our undergrads don't get access to those people they don't think about doing honours and they certainly won't think about doing PhD, and four of my PhD students [are] the people who I taught at undergraduate level a couple of years ago and they did honours and now they've gone onto PhDs.

Secondly, it was suggested that students needed to see established researchers in the classroom if they were really to understand how a discipline worked:

We need to get Professors like me going into the first year unit and saying, 'these are the sorts of areas that [our field] can open you up to', and hopefully try and build enthusiasm.

The views expressed here suggest the relationship between teaching activities and research performance is more complex than is often represented. Initiatives designed to enhance research performance should take that complexity into account and not simply opt for reducing overall teaching commitments for active researchers or quarantining higher performing researchers from teaching duties altogether.

4.8 Concentrating time for teaching and research

Several interviewees reported that in their faculties formal or informal schemes had been implemented that enabled academic staff to block their teaching and research activities and this was considered beneficial to their research. Two models were identified. In the first, team teaching of coursework units enabled individual staff to concentrate their teaching in one half of the semester, thereby opening up more time for research in the other. As one senior lecturer explained, 'I'll teach two streams...instead of one for half the semester but then I'll have six weeks with no teaching'. The second model encouraged staff to concentrate all their teaching in one semester each year. A key benefit of this model was the capacity for staff to then use that other semester to travel overseas, undertake periods of fieldwork off-campus or to focus on their research in a sustained way. A senior administrator in a faculty where this option was available reported that 'it's quite a challenge when you're putting a work load together for a school, a teaching timetable, but yes basically...we aim to get as many staff as possible with their work concentrated in one semester if they want to do it'. A more junior staff member working within this structure reported the experience as a generally positive one, describing the practice in the following way:

I'll just finish the teaching half or I've got exams to go but you can just feel your brain changing over, it's really quite funny. Back into research mode.

The same staff member did note, however, that exhaustion was a factor in the teaching semester, especially as the research itself didn't go away and still had to be attended to. She was quite clear that there was only one way to accommodate this: 'you just work longer hours during the week essentially'. So while the model offers some definite benefits, it is not without costs.

A third model was also mooted, namely teaching two out of every three semesters, although no area was identified as having implemented this. In the opinion of one interviewee, the benefits of this model were worth exploring:

I think it would be really good, it doesn't mean you're exempt from your committee work or your administrative work or any of the other things, but only teaching two out of every three semesters I think would make a huge difference.

It may be useful to audit the different practices university-wide with respect to the concentrating of research and teaching time in order to establish a set of models that could be implemented on a wider basis.

4.9 Moderate involvement in administration

While administrative duties were not generally looked upon fondly by the interview cohort, the more junior staff among them were clear that moderate involvement in administration could be beneficial to their careers. While the arguments against taking on administrative roles tended to focus solely on the loss of research time, arguments in favour of gaining administrative experience were slightly more varied. Some interviewees were quite clear that they had a responsibility to 'give something back' to the university community and saw committee work as one way to do that. Some also spoke of the importance of being involved in critical decision-making processes in their area. One interviewee talked about how she was 'on a lot of committees and...various Monash-wide things, but that's important to me because I think it shapes the future of how my area is going to go at Monash.' It was clear

that several interviewees derived a certain level of 'enjoyment' from mastering the different skills involved in successful committee work:

I enjoy being on committees and being involved, I don't just go to the meetings, I make sure that I get involved, and get onto sub-committees, and do things. And so I enjoy the community spirit of the university.

I like responsibility, I feel very strongly about the curriculum and about the direction that we should go. I enjoy to a certain extent managing a group of people. I enjoy meetings with people. I enjoy chairing meetings and getting points of view and reaching a consensus.

Still others took the pragmatic view that good service would be recognised in terms of their next promotion and, with that in mind, they sought an appropriate combination of roles:

Academic board, well, that's really pragmatic. I'm on departmental committees, I'm on faculty committees, and then, the next thing in the hierarchy is a university committee. This will be good for my promotion and it will look good on my CV.

All these staff were keen to balance the potential benefits of administrative work against the potential negatives, and so, in the words of one senior lecturer, the 'big challenge is how to participate...in a way that's constructive...but in a way that you don't get sucked into the vortex'. The question of how much administration can be too much is addressed below (see Section 5.4 Substantial administrative loads below).

4.10 Flexibility

There was unequivocal support for the level of flexibility available to academic staff at Monash. Precisely what individual interviewees meant by 'flexibility' tended to vary, however, in general the term was used to denote the capacity to determine the hours or days they spent working on or off-campus. Many equated flexibility with autonomy and the capacity to manage their own time effectively and saw these things as underpinning their research performance in very positive ways.

I think you need that flexibility, and the culture of 'oh yeah if she's not at work she can't be working hard' is slowly going... When I was first working, if you weren't in your office, you know, all hours of the day and night then you couldn't be working hard. In actual fact, you can work very effectively [off-campus] but you just have to do it slightly differently, and I think people accept that now that you don't have to be here...I think it's a culture change.

Obviously staff whose research was tied closely to equipment or facilities on campus (e.g. lab based science) tended to be more limited in their capacity to vary their place of work ('I mean it's work that you can't do so easily from home'), but others saw this option as key to their working lives. All were clear that it wasn't about working less, but about working differently, and in some cases it meant they were in fact working more hours:

The one thing that an academic life does give you is the flexibility to work 70 hrs a week where you want to do it. I'm being a little bit facetious, but you at least have that flexibility.

For many, their off-campus work was clearly considered the more valuable work in terms of what they could achieve. Large numbers of interviewees, for example, reported that they were unable to work effectively on their research in their offices on-campus, so the flexibility

to work elsewhere was deemed absolutely critical to getting the research done at all. In the words of one Professor:

My day here if I'm here [on campus] is taken up with meetings, like just constantly discussing things, either impromptu or fixed meetings, research meetings. If I want to work on something seriously I'll stay home. If I want to write a paper or write a grant or read something important like a thesis I will stay home.

Her sentiments were echoed by a more junior staff member:

In your office you're not likely to get anything done in terms of your research, so I really make sure I focus on those two days a week, and I really find that just being at home on those two days...really does help to get some concentrated writing done.

Flexibility was also viewed as key to balancing paid work with a variety of family commitments, with many reporting that being able to vary their starting and finishing times took considerable stress off them when it came to dropping off or picking up children. Extending that flexibility to those who worked for them was seen by interviewees as guaranteeing rather than undermining the research performance of those staff. One senior academic put it this way:

The flexibility is really crucial for both female academics, but even young fathers. We have many of them in our school who need to be able to...work at home and come and go as they please, and I use that flexibility for my postdocs who are currently fathers, and I say if you're going to work on a paper from home, that's fine; you want email contact, no problem.

The flexibility to vary the nature of their appointment was also commented on, with one interviewee reporting very strong support from her school for her decision to reduce her appointment fraction in order to allow her more time to raise her children. In her experience, the reduced fraction did not mean that she had access to fewer research opportunities, and it guaranteed her a more balanced life:

If I was working five days a week and was working double what I was working now I'd be exhausted. I would just collapse in a heap, so in some ways being part-time is an advantage.

Heads and supervisors who respected and encouraged flexibility were warmly praised and levels of autonomy and flexibility correlated strongly with positive assessments by interviewees of their overall working conditions. Some even suggested flexibility was one of the most critical factors for them when deciding to pursue or continue with an academic career.

4.11 Internal and external research funds

Interviewees were very clear about how significant the availability of internal research funds had been to the building or enhancing of their research careers. Many identified the ways in which early funds from within the university had paved the way to successful applications for external funding. One postdoctoral fellow, for example, talked of how an initial MURF Postdoctoral Fellowship set her up for the ARC one:

I wanted to apply for an ARC. I was unsuccessful the first time, but the second time based on that MURF support (which was fantastic...) I was then successful.

In the same vein, others saw access to internal funds as a way of developing the kind of research track record necessary for seeking external funds and therefore an essential part of an early career researchers' strategies. In the words of one interviewee:

It is very strongly talked about within our department...that you go for your internal funding first to show that you can get a bit of track record... but then there's a really high expectation that you...go for external funds.

There was equally strong support for the use of internal funds for international conference travel and for pilot studies, particularly where researchers were trying a new idea, building a new team or changing research direction. Internal money 'makes a lot of things possible' was how one senior lecturer summed it up.

Winning external research funds is a fundamental part of being a successful researcher at Monash University. One woman we interviewed put this quite simply: 'Getting the ARC grant was the biggest boon to my career'. Several commented on the fact that certain forms of particularly prestigious external funding (for instance, an international postdoctoral fellowship, a large ARC grant) could either launch their career or simply place them in a 'different league' to their peers.

Often it was winning the first piece of external funding that was particularly difficult. Once that was accomplished, it became easier: 'Once you get one, getting the rest is easy...'. It was reported as particularly helpful if supervisors or mentors coached early career academics through their first application process: 'I learnt a lot seeing what the chief investigator was doing...there was that experience of just seeing what somebody who's an experienced person getting ARC grant was doing'. For some successful researchers, their departments formalized this coaching process and this was crucial for new or junior people in securing external funding. Working alongside other successful researchers also created a climate of external funding success, as more informal coaching, encouragement and leading by example took place on a day-to-day basis.

Overall, the researchers we spoke to acknowledged that getting a significant external grant requires determination and persistence. 'I think that sometimes you should hang out for these', one researcher put it. 'I went through years of being rejected and finally won exactly what I wanted'. Indeed, it's important to point out that many of these successful researchers had also failed to get a grant, sometimes on multiple occasions. They understood very well the delicate tension that governs external funding. That is, getting an external research grant is, on the one hand, 'a lottery', as one researcher put it (many knew the exact probabilities of getting the particular grant for which they were applying), yet on the other hand it represents the results of working hard over years to build up the appropriate track record. They generally felt their hard work to well be rewarded in the long run.

It's interesting to point out that some particularly successful and established researchers were so adept at gaining and managing external funding – always having a grant coming in – they were able to use this to help facilitate combining a family and a successful academic career. In the words of one research fellow: 'I've got four years of secure funding in front of me, which gives me the opportunity to stop for six months and have a baby and all those things, which is wonderful'. Other women were particularly strategic in making external grants work for them, pointing out that you don't have to 'sell your soul' to get an external grant, you can find something 'you're interested in', and even get an article out of the grant application, as one woman told us. There was a suggestion that along with general departmental and faculty advice and support in relation to getting external grants, it was also important to point out these sorts of informal or strategic tips in faculty grant-writing sessions: 'We need more people telling us to be clever [about getting these external grants]' as one woman put it.

4.12 The new research culture

Most interviewees demonstrated a well-developed awareness of recent changes on the research front at Monash University and were very enthusiastic about what they interpreted as a renewed focus on research activities. One senior woman expressed something akin to relief as a result of recent changes: 'I feel much better now'. Quite a few commented on new or improved support mechanisms now available in their faculties, particularly with respect to competitive grant applications. One Associate Professor noted how:

In our faculty and in our department we have processes, like other people read your research grant application before it goes in, and provide you with feedback and coach you to get grant success. So I think that's all very positive. Before we had that, it was a lot harder and people didn't really know how to write grants and didn't really know how to get them, so that's been hard.

Another researcher from a different faculty reported a similar improvement:

This year actually it's a lot better. We've got a new Sub-Dean (Research)...and she's great, she's giving a lot of support for research. I'm doing some grant applications and they're almost jumping through the window with support for me. So this year, in terms of grants anyway, there's a lot of support.

Several interviewees identified new workload systems or formulae as giving welcome – if overdue – recognition to their efforts in research. One staff member talked about how her department

has been really, really good in changing work load to help people do research...our department has actually been quite quick to make changes to the work load so that people have no excuse basically not to do research, so that's been really useful for us.

Two further new initiatives were noted. One interviewee identified where departmental research funding schemes had been reworked to be more 'incentive' based, so that staff were now actively encouraged to publish and to apply for grants. Another department had hired a professional writing specialist who ran intensive workshops to assist academic staff in developing articles for journal publication and who also provided one-on-one editorial advice. This latter initiative was not cheap, but a senior staff member who had participated in the workshops described the experience as 'really positive', suggesting that she 'would see it as something that other departments would really benefit from'.

4.13 Forms of leave: Outside Studies Program (OSP)

OSP leave was uniformly regarded among teaching and research academics as vital to their research programs, something they looked forward to with pleasure and planned for carefully. Interviewees discussed leave periods taken overseas and also those taken locally, with benefits identified for each. Quite a few interviewees identified periods of OSP leave as 'turning points' in their research careers. For example, it was not uncommon for those in scientific or technical fields to have used at least one period of OSP leave specifically to learn a new research technique or undertake special training outside Monash that would allow them either to consolidate an existing research path or to develop an entirely new one. That experience was characterized in the following manner:

I had the opportunity to be somewhere else, to be out of the office and working in a different environment and get other ideas and so that really helped. Whereas if I had

stayed here in Melbourne and come to my office everyday, I wouldn't have been able to extend what I was doing.

I basically had to retrain again in that sabbatical, it was very key. I had to go to a lab where I didn't know the person. I had to learn a whole lot of skills and literature and thinking and everything...It was like dumping me in like a new PhD student.

Another staff member talked of the boon she received in being able to take OSP leave to complete her doctorate. Aside from the specific research benefits, some interviewees represented OSP as a much needed opportunity for general 'refueling'. Others identified it as a period of self-reflection when they could get not just their research, but their whole lives in order again. In the words of one researcher, 'it helps...to clear your head and come back refreshed'. Given how fragmented their regular working time was reported to be, OSP leave was used by many to start new projects and to build up a storehouse of developing work and a level of momentum that they hoped would carry them across more hectic periods of time when they returned from leave. In terms of how they experienced the leave period itself, interviewees were quite frank: 'just bliss, absolute bliss'.

4.14 Forms of leave: Maternity leave

Maternity leave was discussed by numerous interviewees and the university's new maternity leave provisions² were consistently singled out for high praise: 'absolutely fantastic'. These views were expressed irrespective of whether interviewees saw themselves benefiting directly from them. The majority of the interview cohort were mothers and they varied in the ways in which they had approached maternity leave.³ Some had taken very little leave when their children were born and returned to work quite quickly: 'I was basically working all the time, I didn't take any maternity leave or anything'. Others had taken full advantage of the available leave provisions at the time and had found the longer break helpful in adjusting to the new demands of motherhood 'because it's a really special time and you do need to take time out'. Staff with younger children, those who were currently pregnant and those who were planning families were intensely interested in how their workplace might support those decisions and extremely responsive to specific policy initiatives. One researcher enthusiastically averred that:

I'm 23 weeks pregnant and the thing that probably has given me the most faith in institutions has been the passing of their new maternity policy.

What was interesting was how these staff viewed the new extended maternity leave provisions as likely to enhance rather than halt their research productivity. In the words of one woman:

If I simply had a 12 week maternity leave deal, as if my research wouldn't be totally cocked up, you know. Imagine having a new babe, having to come back to work after 12 weeks, having to try and keep your research going and all the rest of it when you're probably not sleeping...You can't do that and you can't progress in the same way.

² The new provisions provide for 14 weeks leave on full pay; and up to 38 weeks leave at 60% of salary rate of pay for a staff member who has a continuous service period of 24 months or more. Women who choose to return to work anytime after the first 14 weeks can direct that the outstanding entitlement be paid as an allowance either in a lump sum or on a fortnightly basis or they can request that any outstanding entitlement be directed to the payment of childcare fees when the Monash childcare facilities are used.

³ It should be noted that not all interviewees reporting on their experiences of maternity leave took that leave while employed at Monash University.

Whereas I'm now able to plan a twelve months maternity leave where I'm going to be gone for 6 months, [then] I'll be back two days a week, I'll remain on full pay which allows us to keep the mortgage...and I've been able to set up a number of research grants which will run cover for me over that time so there'll be no gap in my CV.

Several other interviewees had not had access to the new leave provisions, but they also attested to the ways in which their maternity leave had functioned not as a break in or from their research, but as an unexpected opportunity to get ahead with that work. One researcher who had taken three periods of maternity leave explained how she had finished her PhD on the first and written a book a piece on the other two. But others were just as emphatic about describing maternity leave as genuine and necessary time-out from work for them: 'I've got the opportunity to actually have a baby and then stay home for 12 months and I think that's fantastic'. One senior academic was adamant that however women wished to approach maternity leave, the university needed to be quite clear that taking such leave was acceptable: 'this organisation needs to support women, we need to make sure that we send a clear message that it's okay'.

4.15 Respecting family life

A popular belief exists that combining family with a successful academic career for a woman is nearly impossible. In fact, a significant finding of this study has been that most of the successful academic women we spoke to had children and partners and, what is more, family was rarely constructed by them as an 'impediment'. In the words of one Professor, it was important that you 'don't get into that "you've got to have a family or a career" – you can have absolutely both'. Overall, the picture of work and family life was more positive and also more complex than it is often represented to be for professional women.

For many of the researchers we interviewed, their children and families were a fundamental and enriching part of their lives. One Professor who was particularly successful in her field saw her two children as her biggest success: 'they're the absolutely best thing that I've done', she said. Furthermore, children and family were constructed as a positive and enriching part of life, rather than as a constraint. 'Children help you have a balanced outlook on life', one Associate Professor said, before adding, 'They also take up a huge amount of your time and energy'.

Certainly, combining a successful academic career and having children is demanding. Many of the women we spoke to described extremely busy lives where things such as exercise or socializing were barely squeezed in, and house cleaning happened in the early hours of the morning (see Achieving work/life balance). Along with this, some of the academic women we spoke to simply acknowledged that they could not move forward with their career as quickly as they might like because of the demands of family – and this was simply something that they accepted.

However, we also found that successful women researchers with family commitments make the family/career nexus work by not only managing their time in a very controlled and organised manner, but through making time where others might not, and by working extremely productively and efficiently in the time available to them. As one Professor described: 'I'll work very, very hard during the days and I'll work flexibly – I'm lucky in that I can do two or three things at once... there's a conference in Italy and my kids are coming'. Another put it this way, 'I [wrote papers] when my baby was asleep or someone would take him for a walk and I would rush to my type-writer'. These women recognise that both family

and career are important, and through this recognition, strive to find ways to make the combination work. Often, husbands, partners, and extended family played a crucial part in this. And there was general agreement that the demands of children shift and change as they grow, making different kinds of accommodations possible at different stages.

A key positive feature of the university environment was the extent to which certain units 'normalised' family commitments, actively assisting their staff by respecting children and family life. For example, some women we interviewed worked alongside other women and also men who had children of similar ages. For these people, there was a natural understanding of the demands and rewards family could bring, and this was experienced as particularly helpful. For example, one lecturer said: 'Now that I'm having a kid and [my male mentor] is also having a kid at the same time...we going through exactly the same problems and issues at exactly the same time – so it's good'. Two senior researchers talked about their immediate work group as a second 'family' where they looked out for one another. Indeed, having a mentor or senior person in your department who modeled 'best practice' in relation to combining academe and family life was also seen as particularly beneficial. This created an environment where having both a family and a successful academic career was not only possible, but was viewed as quite normal and desirable. What this appeared to depend on, however, was the presence of particular successful and family-oriented individuals. One Associate Professor, for example, reflected on how 'I tend to attract PhD students and research assistants who are women having children and they're busy, they don't have time to waste. They're really good at organising their time and they feel comfortable working with me because, I guess, they see me in the same situation'. In this way, such respect and recognition was more a matter of individual circumstances and 'luck', rather than a factor existing uniformly across the institution.

Overall, this shows us the importance of the university recognizing and actively respecting the productive relationship between family and academic life. As one Professor put it: 'I have a bad day [in the lab], and I'm going to walk out of here, and I'm going to be as ratty as anything, but I walk in the door with my family, and the cat's there, the kids are there, the music is loud and the dishes are dirty and the clothes are all over the floor and you think – okay, good, it's nice just to be home'. Actively facilitating the strength and support families provide seems a key way the university could continue to facilitate the success of these women.

4.16 Effective working style

It was interesting for us to observe that some (although certainly not all) of the most successful women researchers we spoke to had a very effective working style; that is, a way of presenting themselves and behaving which clearly aided their success in the profession. For some, this did not appear to be particularly conscious, but for others cultivating a certain 'style' definitely was. They reported how they thought consciously about how they presented themselves, such as through what they wore, and they negotiated this self-presentation confidently, but also very carefully. One talked of how in her initial academic appointment she feared her youth might count against her in a department of older staff: 'I always looked older, so it was alright. I always dressed particularly well so that was all right. So I think probably for a while I felt the various pressures and prejudices about being a young woman'.

An effective working style for many of these women was simply a matter of being confident about who they were, and not pretending to be someone else. For example, one successful senior researcher described how, in her opinion, some academic women behaved in a masculine manner or like a man, while others behaved in a very feminine way, 'dizzy', as she put it. She did neither, she said. She was 'herself', and being herself was an important part of being confident and successful. She wore what she wanted, spoke how she wanted, and if this meant people sometimes under-estimated her, that was their problem.

For some women, having an effective working style might also mean possessing certain personality attributes to which they partly credited their success. Determination was seen as very important and emerged as a common theme. 'You're talking to one very determined person', a senior woman suggested. Connected with determination was, again, a sense of confidence in one's capacities. 'I'm absolutely totally and utterly stubborn, committed, tenacious and it doesn't matter what you throw in front of me or anyone throws in front of me, I will find a way around it if it blocks me from doing what I want to do. That basically is what it takes – an absolute determination to succeed and a belief in yourself'. And these women clearly backed up this belief in themselves with efficiency, organisation, and lots of hard work.

The way in which many of these women described how they dealt with and managed other people also could be considered part of their working style. We found that the successful women researchers tended to have a collaborative and egalitarian, rather than conflicting and dominant management style. 'I won't thump on desks and swear at people or be openly aggressive. My style would be very much to make a joke', as one woman put it. Some also spoke of how they refused to adopt a more hectoring or bullying style, even though they had witnessed male colleagues successfully getting what they wanted that way: 'Sometimes I think to myself, "why should I be a typical male?" I don't want to be. I am who I am, and you know, you're right, maybe I don't really want to change how I run things'. This also related to how these women dealt with instances of harassment and discrimination (see Section 5.11 Gender issues and discrimination).

As discussed in Section 4.5 (Role models and mentors), part of the effective working style for many of these interviewees involved endeavouring to be fair, and help others, as well as looking out for your own success: 'Everything I do is not to necessarily enhance my profile but it's to enhance others who are around me, because I'm a firm believer that you don't climb, we don't build brick walls'. Along with an effectiveness in their working style, the women we spoke to also pointed out ways they wanted to improve in this regard – they weren't 'perfect'. In fact, some women pointed out that they weren't 'super women'. Improving their working style was often related to the way they dealt with other people, such as through dealing with conflict, and saying 'no' to things: 'I was no good at saying no'.

There were, of course, others who said they didn't care about their working style at all. For example: 'That's your character and in some ways I'm not particularly good at that, but I don't really care. You know I don't care what people think of me...if my colleagues don't like the way I work that's too bad, you know'. However, this could still perhaps also be seen as a way of exhibiting a certain confidence in 'being yourself'. Often very successful academic women were not afraid to 'speak out' in the interests of others or the greater good, which might 'annoy' people, but which they saw to be crucial to who they were (see below).

4.17 Help seeking

Connected with an effective working style is the ability of some successful women researchers to seek help when they need it. For example, one woman described going to an overseas lab to learn a new skill she needed to advance her research. Another described seeking the informal advice of others in relation to how to deal with a difficult work colleague. Yet another described seeking this advice formally – getting someone in to train her and a colleague on how to manage difficult personalities in the workplace.

Help-seeking behavior was connected with being assertive or ‘speaking up’. Often we found that some women had put up with some quite difficult conditions: a casual contract which meant that they received no pay at all over the holidays, being passed over for promotion time and time again when they clearly felt they deserved to be appointed (see also Gender Issues and Discrimination). Overcoming these barriers often meant consciously ‘speaking up’ – approaching the head of department and asking explicitly for a better contract, for example. Not simply waiting to be given things or looked after was important too in this regard. ‘You have to be very assertive’, one woman suggested. ‘If you’re not very assertive, you don’t get anywhere’.

It’s perhaps important to point out that for many of the academic women we spoke to, some still had problems speaking up for themselves, or weren’t initially the type of person who would. Some had difficulty saying ‘no’ to things, for example. Others said, ‘we are not as ready to push ourselves forward’. This is important, because it shows us that ‘speaking up’ and being assertive can be difficult, even for very successful people, and is also something that can be learnt and developed over time.

4.18 Recognition

Overall, many of the successful academic women we spoke to mentioned that being encouraged and respected was a key part of their success. Crucially, such positive recognition did not have to be substantial. For example, one Professor described how her Head of Department adequately recognised her just through spending five minutes a week checking in on how things were going with her research, and congratulating her when she successfully obtained more funding. ‘It’s about being valued’, as one postdoctoral fellow put it, ‘and not feeling under-valued’.

5. What could work better?

The previous section of this report focused on factors that positively influenced women's research performance. In the course of the interviews however, participants also discussed those aspects of the university environment that created disincentives to optimal research performance. Many of these impediments to greater research output are not Monash University specific but reflect conditions within the higher education sector in general. In addition, while some of the issues canvassed are specific to women's experience of academia, others relate to both male and female staff engaged in research. Strategies addressing these issues would improve the university's overall research and research training performance.

5.1 Research time, fragmentation of working hours and the long hours culture

'It needs to be recognised that good research takes time', one interviewee observed, but almost everyone interviewed indicated that there were never enough hours in the day or days in the week to achieve all they would like to. For some, this was just a fact of life ('I never have enough time in a week to catch up with everybody who wants to catch up with me'), but for others it represented a source of considerable anxiety or frustration. Perceptions of what constituted the greatest time challenge varied, but teaching and research academics in particular, cited insufficient time during the regular working week for research, although this was considered to be one of their key responsibilities. It was reported that in one faculty there was a perception that research was something for 'doing...in your own time'. Several interviewees identified quite specific ways in which they felt their time was poorly used by their units, for example, in demanding what amounts to routine clerical work from senior academics:

I'm in charge of 600 students and...I had to enter all their marks myself. It's ridiculous for me sitting here doing two or three hours of data entry when I can't type...that's half my working day, three or four hours of data entry is half my working day... I'm not being a snob and saying I'm too good to do typing, but if you want me to be a researcher...

A senior lab scientist pointed to a similar issue, talking of how 'we spend a lot of time doing jobs that somebody who doesn't have the same qualifications could manage'. Others had had to learn to be strategic in the amount of time they devoted to particular tasks. For example, one interviewee noted how she had rethought her initial overly-conscientious approach to administrative jobs after realizing there were probably smarter ways to work:

I realised that I'd been spending my weeks doing hours of work and most of my colleagues weren't doing that...for years I was reading the papers before meetings and making sure I knew what was going to be discussed in the meeting: no one ever reads those papers.

The fragmentation of working hours on-campus was nominated as a further issue with which many had to contend. One researcher complained, 'I cannot do research stop-start', while others described their typical working weeks as 'very disjointed', 'messy' or 'chaotic'. Some had developed strategies to deal with the interruptions to their research and thinking. One Associate Professor talked of how she would 'try and leave [her research] in a state where [she] can easily pick it up'. But the more common response, beyond quarantining specific days for off-campus research work, was to use time after hours to compensate for the lack of unbroken research time during the working day. Some interviewees talked of the pleasures associated with those uninterrupted hours:

In the evening after the children are in bed I actually go and do my work and I really enjoy doing it because it's like...it's 'me' time.

Most of my creative work, most of my research is done away from my office and usually at night time.

For others, however, such accommodations were simply viewed as a necessity if the work was to be done at all. Indeed, the feeling that there was never enough time prompted some researchers to grab whatever time they could, whenever and however they could:

There's always a challenge of getting time to do research, and I think everyone I know would say they do their research at night and on the weekends, and you don't get time during the day.

This inevitably meant that some of these women were working extremely long hours across the week in an effort to fit their research in. Twelve hour days were not unusual, with a small proportion routinely working much longer, often until the early hours of the morning. One or two reported sleeping no more than four hours a night. It is perhaps not surprising, then, that long hours were interpreted as normal and were directly linked in the minds of most interviewees to career success. Many interpreting working long hours as essential to getting ahead:

But at the end of the day you have to work hard, if you're really serious about it. Anybody that is successful in whatever they do, they work hard. You don't get there by not putting in the time, not putting in the hours.

Despite the prevalence of these views, there were some who had assessed their own situations and made different choices:

I won't let it interfere with my life and so I don't stay here until all hours, I won't work on weekends, I won't be in here at the crack of dawn.

I no longer work weekends and I rarely work in the evening...I reclaim that space in my life and that's the hard...I mean that's the hardest thing to do.

However, those who had made active choices not to commit to long hours still associated overwork with good work, and so felt their own decisions would inevitably impact negatively on their career progression. This was despite the fact that in objective terms they were still working very hard:

Perhaps I'm not as successful because I'm not putting in as much time as people who are, but then I have a life. So I made that choice to have a life as well.

5.2 Achieving work/life balance

As noted in Section 4.10 (Flexibility), the flexibility available to academic women was considered beneficial, but it did not always guarantee a satisfying work/life balance. When it came to explicit discussion of work/life balance, responses were very mixed, but only a minority of interviewees were satisfied that they had achieved a reasonable work/life balance.

Some of the interviewees were not particularly interested in this topic. They were candid that their research was the most important thing in their lives and that it energized them. These interviewees did not make a distinction between work and other parts of their lives.

My work is a hobby like other people have hobbies or other people have social lives; I don't have hobbies, I don't have a social life, I have work.

For this group, long hours spent working did not represent any conflict or stress. On the contrary, they identified distractions from their research work as causing greater stress.

But another group evidently valued work/life balance and some had taken definite steps to maintain it:

I always have dinner with my husband on a Thursday night. We have a favourite restaurant and, unless there is some particular issue that has come up, we will always go and have just a quick dinner without the kids and do that.

We always have dinner with the children, so we would not stay here until 10 o'clock at night. We would come home and have dinner with them.

When I'm on holiday I make a conscious effort not to do any research — even though I should be, because I know things are going to flop — but I just spend a lot of time watching movies, we go out if the weather is nice.

One interviewee articulated how her decision to go part-time related directly to achieving better work/life balance. However, many others still found it a constant struggle. It was something they said they wanted to improve on, but they found themselves routinely sacrificing life outside work to the demands of the workplace, particularly in the more intense or stressful periods of the year:

I haven't had two days off in six months. Two days off where I haven't actually worked.

I don't have any life/work balance, I work, work, work.

Some interviewees saw longer term personal, familial and health consequences following from an inability to maintain balance in their lives. One talked of a marriage break-up resulting from the pattern of her working life, while others were clear that relationships with both children and partners required attention and that meant time. Several interviewees, moreover, could identify quite specific impacts on their own health or well-being from the way they worked:

I used to work 7 days a week, 12 hours a day no worries and that's not an exaggeration...I'm quite serious, that's what I used to do everyday, and eventually you figure out that's unsustainable.

I'm exhausted all the time.

Not all the women interviewed expressed the same difficulties. A good number outlined the recreational or relaxation regimes they had specifically developed to manage stress and maintain their health. And while sticking to these plans sometimes proved challenging, many were highly committed to fitting sporting and fitness time into their daily or weekly programs:

I run about 6ks every second day or so.

I need a break and for me I go to the gym every day and that is my release, although I always take a paper with me to read at the gym.

I make sure I exercise about 6 times a week, I do pilates, and that's my hobby out of work. And I go to pilates regardless what's going on.

For me exercise is a lifestyle choice, it's not something you do for fun...it's something that needs to be a regular part of your life.

One highly successful mid-career researcher explicitly identified the potential burn-out factor as something the university needed to address if it wanted researchers to stay the distance.

5.3 Performance Management Scheme

Asked about useful structures in place to support their research programs or their careers more generally, no interviewee identified the current Performance Management Scheme (PMS). When prompted to talk about it, very few were complimentary about their personal experiences of it or the way it was administered in their area. One suggested that 'all that happens with the documents is they just go into a drawer and no one looks at them'. Some felt that while the meetings with their PMS supervisors were pleasant enough, they provided little useful feedback and the required paperwork was a time-consuming annual ritual.

The fact that the PMS exercise tends to have a narrow focus on relatively short-term quantitative outcomes (e.g. numbers of publications, number and dollar value of grants) meant these researchers felt it seldom offered them the opportunity for a more considered discussion of, or guidance on, their research programs or plans. This is despite the presence of a career planning section in the PMS documentation.

While they may not have derived much from the experience themselves, those who were actually PMS supervisors were clear that they made a particular effort to use the scheme productively when they were working with more junior staff. As one Associate Professor commented, 'I love having them with my staff because I can tell them how wonderful they are and I can get them fired up about their own careers during that time – so I quite enjoy that aspect'. In a similar vein, another noted, 'I think the feedback is that I do a reasonably good job'.

5.4 Substantial administrative loads

The perceived benefits of moderate administrative loads were outlined in Section 4.9 above. In contrast, a clear theme to emerge among the more senior (Level C and above) interviewees was that while they all understood the importance and necessity of undertaking a certain level of administrative responsibility as they gain seniority and experience, they felt the impact on their research careers of heavy and/or sustained administrative loads could be quite devastating. One researcher holding a senior faculty appointment wryly commented that 'If I am thinking about research when I get out of bed I'm more likely to be thinking about when can I find time to do it'. Another expressed concern that the research which had been given such a great boost by her OSP the previous year was now 'grinding to a halt' while she took on her second term as deputy head. Several volunteered that their administrative load was larger than their teaching load.

Many felt that their demonstrated competence left them vulnerable to repeat requests to take on senior administrative roles in their areas. In the words of one senior lecturer, 'once you set yourself up as being capable at research – and it's usually because you're capable in other areas as well – you're very quickly sucked into administration'. She continued, 'We need women who understand the dynamics and needs of research in those roles, yet to go into them kills your research because it just kills your time'.

Significant numbers of interviewees felt that as women they were carrying a disproportionate load when it came to 'organisational citizenship', as they could identify many more women than men in their areas (even those where women did not dominate) who were repeatedly offered or took on key administrative jobs. One or two expressed particular concern for the younger women whom they could see being consistently side-tracked into administration: 'I'm looking at all of these women and I'm thinking...from their own research career point of

view...they are all level B, and I'm thinking, I'm not doing their performance management reviews, but if I was, I'd just say stop doing it'.

Quite a few specifically identified the impact heavy administrative loads could have on their future promotion prospects, particularly to levels D and E where it was felt research performance was more consistently weighted over administration. Several gave personal accounts of being knocked back for promotion following higher level administrative appointments because their research was judged insufficient. One reported telling her Head after a failed promotion application that 'you can't expect me to be a deputy head of department, be a senior lecturer, and to get knocked back [for level D] on the basis that I don't have enough publications'. Others gave examples of colleagues who, following extended administrative appointments, had been chastised over their diminished research performance. As one Professor observed from long experience, administrative appointments often came with teaching relief or administrative assistance but little or no support for continuing your research. In her case, she 'kept papers going...but the grants then began to drop off'.

The general feeling was that to task high performing researchers in this way was potentially counterproductive. One professor expressed it thus: 'I think I'm a leader in my research and my research team, perhaps not a leader in the administration of the university, but I don't want to be'. Another was more explicit, 'you cannot have a strategy which is that Monash will be in the top three research [universities] and be expecting this [level of] administrative and management...responsibilities, it doesn't work'.

5.5 Clearer communication of policy and practice

Despite the fact that the interview cohort in general demonstrated high levels of awareness of university policies and practices, there were instances where staff had limited understanding or knowledge of these. The most dramatic involved a continuing staff member at Level B who was not aware of the Outside Studies Program, although she had been employed at the university long enough to have qualified for such leave. Promotion was another area where some staff appeared unaware of key procedural matters. For example, several expressed concern that career breaks associated with childbearing and childrearing would count against them in promotion and the advice they were receiving clearly failed to alert them to the 'relevant circumstances'⁴ provisions as they apply in the promotion process. For example, one Level C academic reported:

I'm finding that they are all confused with my CV because it's got two holes, maternity leave, maternity leave being away, no publications you know, and they don't know what to do.

Similarly, another academic who had shifted from a full-time to a fractional appointment for family reasons considered that her fractional status would ultimately damage her prospects for future promotion. 'I see no way that I will get promoted any further when I'm part time', she commented.

In general, different issues around promotion arose for staff at different levels. Several at Level B, for example, reported receiving conflicting messages about the appropriate timing of applications and the criteria involved:

⁴ The university's Academic Promotions Guidelines contain provisions for 'relevant circumstances' (such as family responsibilities) and their impact on one or more areas of academic activity to be documented by applicants. Promotion committees can then evaluate all candidates' achievements relative to opportunity.

In my performance review in my second year they said look you're at the top, you've been at the top of the scale, you need to apply for promotion next year. So I did that and my head of school then didn't support that application.

It's a very uncertain process. The goal posts shift and you know it's not certain that you will go through...

A small number clearly felt that the application process itself was unwieldy and overly time-consuming. Where they considered their prospects uncertain, they determined that their time was better spent on their research than on a promotion application: 'I don't have the time to sit down and think about the application and the process'. Formal sessions designed to inform potential applicants about the process only seemed to confirm its complicated and uncertain nature. Armed with these perceptions, several Level B staff interviewed reported delaying applications for promotion, while two others had simply decided not to apply at all.

Staff at Level C staff seeking promotion to Level D reported mixed experiences. For some the process had been unproblematic and they had achieved promotion without any difficulty. However, those whose initial applications had been unsuccessful considered the feedback they received following those applications to be inadequate, leaving them feeling angry, under-valued, alienated from the institution, and uncertain as to what was expected of them if they were to achieve that promotion in the future. These staff were more likely to consider leaving Monash rather than waiting to re-apply ('if I didn't get my promotion, I would have left') and at least one had subsequently gained her promotion to Level D by negotiation following the offer of a post at a rival institution. Staff at this level were also more likely than those at lower levels to express confusion as to the 'real' weighting given to administration in promotion and the necessity or otherwise of gaining external research funding before applying for promotion to Levels D or E.

5.6 Competing directives on appropriate research outputs

Researchers from quite different areas across the university raised the issue of what they saw as conflicting demands placed upon them in terms of research outputs, especially publications, and the resulting lack of clarity about where they should be directing their energies. For some, it was a question of balancing demands for quantity against demands for quality, and while the Research Quality Framework may represent an opportunity to resolve this conflict in the near future, it is worth outlining here some of the tensions currently experienced by these academics. Researchers spoke of how funding formulas in their areas rewarded quantity over quality and how they saw this as undermining their capacity to work in a concentrated way on fewer, more significant publications: the types of publications that they felt were more likely to be regarded highly by peers and to establish or consolidate their reputations internationally.

One researcher was particularly troubled at being caught in this way between two separate funding schemes. The continuation of grants in her lab demanded frequent shorter publications and she acknowledged that these publications also assisted her postdoctoral researchers in establishing their names. But in her words, this meant she had to focus upon publishing 'smaller units of research rather than going for the big sexy hits'. Her own funding, however, depended upon her being able to achieve more substantial and high impact publications (those 'sexy hits') that would testify to the sustained and groundbreaking nature of her work. 'When I go for a fellowship interview', she explained, 'they are going to say "When's your next big paper? Where's your big paper going to come from?"'.

Other researchers expressed concern that the demand for quantity in outcomes sometimes distorted their overall research program. One senior lecturer characterized her situation in the following manner:

The problem is that...for getting everything you need publications, and publications in quantity, not quality, it's quantity. Therefore, unfortunately, you have to start thinking about that — which sometimes means that you have to stop doing research and you have to just write up.

A separate problem was identified in relation to contract research. One researcher reported how she had been very successful in securing outside funding, but that those funding bodies often placed strict limitations on what she could publish, particularly where the research findings were considered commercially sensitive. She felt that her inability to publish her outcomes disadvantaged her in the current system, especially in relation to promotion:

You certainly get credit for dollars that come in: that's important. And the university... and the department and everyone loves dollars coming in. And I've always been very good at that, but you had to face the fact that the publications aren't coming out.

None of these researchers felt there was sufficient recognition of these tensions on the part of the university or adequate advice on how to resolve them in the best interests of their own career development.

5.7 Job security for research-only staff

Lack of job security was nominated as a significant impediment by early and mid-career research-only staff whose positions depended on gaining continuous external grant and fellowship funding. A key problem with only being on 'soft money' is the stress this involves. For example, one level B described how:

It's the stress...you're always going to have a period where your grant's running out at the end of the year and you've applied, but you don't know if you're going to get it or not.

Despite this situation being a fact of life for so many researchers, it was felt that insufficient recognition of this was a major career issue for them and one that could possibly be managed better. For example, one senior researcher on an externally funded fellowship whose entire team depended on soft money talked about the possibility of the university guaranteeing bridging funds when otherwise successful individuals and teams miss out in a particular funding cycle, funds that could be used to sustain critical research programs rather than see them wound back:

This idea of having some backup is a really good one, and I think if they want to attract good people and actually keep them, having these interim bridging fellowships — post doctoral sources of money — are really very important. I think it needs to be clear how you will be eligible for them so, for example, if I were unsuccessful in getting my fellowship renewed, I'd know I'd have another year the year after that. But if I was unsuccessful, I would need to know that I could count on fall-back funding from Monash no matter what.

Other women also mentioned the lack of recognition associated with only ever being on soft money. For example, one described how there appeared to be no prospects for promotion within the life of her fellowship. She was 'always going to be stuck while this grant lasts as a research fellow on Level A'. Another talked of how she had had to 'promote herself' by requesting a higher salary in a recent grant application. The difficulty of starting a family while employed in this way was also pointed out by one woman: 'You don't get time off for maternity leave...your salary doesn't provide a time line for maternity leave'.

5.8 Isolation

A few of the early career researchers interviewed, especially postdoctoral fellows, talked of the isolation they experienced and the challenges this posed. Having been used to lively doctoral environments with proactive thesis supervisors, they found the intellectual and professional life of the postdoctoral fellow disappointing by contrast. There was a sense that they were too often left on their own to 'get on with it', when they would have benefited from greater support and advice from more senior staff and structured opportunities to interact with peers. These circumstances tended to be more acute where postdoctoral fellows were the only full-time research staff in units which were comprised principally of teaching and research staff and where they were not working in close collaboration with a more senior staff member. According to one postdoctoral fellow, 'I'm completely on my own...there's really nothing here that supports me in the work I'm doing'. Another reported that: 'For me I'm a very lonely researcher...that immediately alienates me from – oh not alienates – separates – that's the wrong word – separates me from the main interests of people in teaching and research'. Part of this isolation could also be connected to gender issues – such as being the only woman or one of very few women in a department (see Section 5.11 Gender Issues and Discrimination).

Teaching and research staff at this level, however, also shared some the same experiences. In the words of one Level B academic: 'I find that at Level A or B you tend to sort of float on your own in many regards'. Although clearly now on track with her research, the same staff member talked of how, as a Level A academic just graduated with her PhD, she 'probably went through a year or 18 months lacking in confidence a little bit. I wasn't quite sure where to go'. Similarly, those who lacked colleagues working in their specific research area described that experience too as 'lonely': 'I was the first appointment in [this research field] for quite a long time and so there isn't anyone at my career stage in my discipline here'.

In general, isolation meant that individual staff often were not getting the guidance, peer support and professional development advice required to assist them in their research output. Given that collaborating, networking and surrounding yourself with good people were all seen as part of creating research success (see Section 4.4 Collaboration, team work and surrounding yourself with good people above), such isolation can be damaging to a researcher's career.

5.9 Career care

Despite being extremely capable researchers, close to half of the respondents expressed some disquiet over the lack of appropriate advice they felt they received on overall career management. Interestingly, this point was raised by staff at all levels, not only those at the early career stages. For example, one Professor with several decades' experience at Monash reflected on how in her time there 'nobody ever asked where my career was going, how it was going, had I thought of applying for promotion – there was never any of that kind of interaction with any senior member of staff'. As noted above, the PMS did not provide appropriate guidance, even though the current Engagement Profile contains a Career Development Plan. The issues identified varied according to whether staff were designated teaching and research or research-only and according to their level of seniority.

How to move from an initial fixed-term research fellowship to a genuine academic career path was a key issue for some of the more junior interviewees. Several felt that more direction and assistance was crucial if they were to develop successful applications for more senior

research fellowships or for continuing teaching and research positions. In short, they needed to learn more about how to make the next career step and they needed this to be part of an on-going conversation across the period of their fellowships. One staff member found the lack of concern for her future so disheartening as her postdoctoral fellowship entered its final year that she had abandoned the idea of applying for the next level of externally-funded fellowships:

Well, if people actually came to me and said, 'look we'd really like you to do something further' – if they came to me at all – I would probably find it difficult to say no...but I'm not prepared to put myself forward...all of the high hopes I had for trying to build a career have sort of got taken away.

One outstanding postdoctoral researcher who had received a medal for her doctorate and then been awarded a Monash University postdoctoral fellowship had asked for career advice when that fellowship concluded and was dismayed by what ensued:

The feedback I got from the Dean and the Head of Staff at that time was they couldn't see any future for me except – if I played my cards right – I might be able to be a research assistant to somebody else here on staff.

Another researcher holding a different type of Monash University fellowship had a similar experience of discovering that her achievements on that fellowship would not readily translate into a continuing career:

We are usually told that we are the cream blah, blah, you're going to get a fantastic position at the end of [the fellowship] if you want to stay at Monash...So the entire aim of [the scheme] is for you to be at Monash after the fellowship and remain here or so I was told. When I finished my fellowship or my fellowship was coming to the end...basically I was told that there was no position for me...I think it's a bit amazing for someone who has brought I don't know how many millions of dollars to this faculty in research grants etc. etc and has my CV, you are telling me that you don't want to have me, what is this?

In terms of other types of career advice, there were clearly mixed experiences among the cohort. As noted earlier in this report, many researchers had received extremely good advice and felt they were well supported in the career choices they made. Others reported that the quality of career advice they received had not always been what it might have, a problem perhaps exacerbated by the lack of senior women within particular areas of the university. One high profile researcher experienced unhelpful levels of paternalism from her supervisor and had ultimately gone against the advice given:

My boss had discouraged me from applying [for a fellowship] because he didn't want me to get my feelings hurt. He had really said that to me. And I got the fellowship the first time around, whereas the other people in his group who my boss was trying to get through took three times – in fact longer than me.

For others, their issues were not so much with individual career steps, but with managing their overall career trajectories. Several successful mid- and later career researchers talked of having achieved significant key career goals, and of needing some guidance on 'what next'. This was expressed not solely in terms of what they might choose to do as individuals, but also in terms of what role the university might be expecting them to play at this point in their careers. One Level C research fellow put it this way:

I am not necessarily ambitious about climbing the career ladder, but what I am ambitious about is building a body of [knowledge], a team of people and I've actually done that. So

I want to know – now I've already reached higher than I ever dreamed – I'd like to know what their sense is of how I consolidate and use that. If what I'm going to do is stand at the level I'm at and push other people up, I'm quite happy, but I just would like the help for how I make the decision about going...and doing that...the only reason I am ambitious [is] because I'd like to be in a position of authority where I can make things better. So, you know, if I knew how I could actually get to that, I'd do it.

5.10 Appropriate facilities and support staff

The majority of interviewees expressed overall satisfaction with their working environments, but several senior staff made clear statements of how comparatively small changes in their workplaces could significantly enhance their overall performance, or conversely, undermine it. The two issues that stood out here were physical facilities and support staff. One senior researcher commented that the physical state of her workplace was sufficiently poor as to make it impossible for her to invite international colleagues or industry partners to view it. Although her team was still performing extremely well under these conditions, she was left to 'imagine what we could do if we had more'. Another equally successful researcher reported how their dedicated seminar space had been halved to provide office space for an unrelated activity, leaving researchers working in severely cramped conditions:

[Now] the whole [research unit] cannot fit in one [seminar] room and ... three people sit in an office space that is the size of my lab where I have twelve people working.

The question of support staff was also raised, principally by those researchers with responsibility for supervising significant numbers of staff and postgraduate students and for managing major grants. These staff were concerned by the fact that, despite their seniority and workloads, they received extremely limited administrative support. This meant they were either spending time on routine administrative and clerical tasks rather than on their research or struggling to manage without that type of back-up at all. The two issues of physical facilities and support staff came together for one staff member who had successfully requested funds for part-time administrative support, but could not hire someone as she had literally nowhere to put them. 'I'd just have to go work at home', she said, 'while I had them work at my desk'. The two forms of administrative support identified as crucially lacking were day-to-day personal assistance and budget support. Despite being responsible for running external grants worth hundreds of thousands of dollars, senior researchers from different parts of the university reported having difficulty getting up-to-date financial statements for their grants.

This was a source of genuine frustration and anxiety. These staff were clear that they had neither the relevant skills nor the time to try to work out the research budgets for themselves. One researcher described an on-going situation where:

I have no idea what my budgets are because our [unit] is so poorly staffed...they are so understaffed that... until last week, I've had absolutely no knowledge of where my budget stands for last year and even the year before. They cannot give me itemised budgets because they are too busy.

The staff who reported these shortcomings were clearly endeavouring to work with or around the above circumstances. But they were equally persuaded that their performance and that of the staff and students working with them could be enhanced by having these matters addressed.

5.11 Gender issues and discrimination

In interviews we heard that various women had faced discrimination, both direct and indirect. For some, particularly senior women, they were highly conscious of the existence of a 'glass ceiling' and felt that the direct discrimination they faced got worse the more successful they were. Often these same women had worked out effective and innovative ways of dealing with discrimination. For some, this involved making a joke out of it. For others, it involved ignoring it altogether, when they could. Several had obtained outside assistance and advice, utilizing the services of the university's Equity and Diversity Centre and had found this particularly helpful. In one instance, the discrimination experienced happened over a long period of time, stretching that staff member's coping skills to the limit. 'I just strongly believed that I had to ride out this storm', she said, 'and that eventually I would be vindicated'. While these sorts of methods of dealing with discrimination clearly showed resourcefulness and excellent coping skills, they also consumed a large amount of time and energy.

There were also instances of lesser discrimination cited, often involving a sense of having to 'prove yourself' in order to be respected equally and listened to. There was a general feeling for many successful academic women that they still had to be 'a lot' better to be accepted as equal. For example, one Professor stated, 'I think the stumbling blocks are being female. I think there is still, unfortunately, a little bit more difficult, you've got to be that much better and all that sort of stuff. I'd like to say it's getting better, but there are still some places where it's not getting better'. Associated with this was a sense of being passed over, when what appeared to be equally or less qualified men were moving ahead with their careers.

Some interviewees also felt that being the only woman around also meant sometimes being asked to join a disproportionate number of committees which could take up a large amount of time. In the words of another Professor: 'one of the things that frustrated me to tears in the early days was, because I was a woman, I was on every single committee you can imagine, and at times it was made very clear to me I was only there in my capacity as a woman'. Women also felt there was a subtle sexism operating behind certain requests to take on more administrative roles because they appeared to be good at the 'softer' people management aspects of those roles. As one Lecturer put it, 'there are gender issues that operate and they operate at every level. Before we even worry about babies, we actually worry about our gendered workplace – it's incredibly gendered, and it's subtly gendered'. Some of the women expressed frustration with themselves when they took on too much work in service to the department, when they did not say 'no' enough or felt they 'owed' people something. (see also Section 4.16 Effective working style).

Gender discrimination was not the only sort of discrimination experienced by successful academic women. Several women felt discriminated against on the basis of their ethnic or racial background, and also their class background. A number of interviewees felt that having English as a second language or having a different cultural background from the people around you caused impediments, constraints and feelings of isolation. One woman described the shame she felt on speaking with a different accent, and the care she took in her English language publications to have perfect grammar while another woman spoke about the cultural isolation she felt in her department. It is clear from these accounts that discrimination in the workplace remains an issue for some women and that it has the potential to affect not only the quality of the working experience but also productivity.

6. Advice and strategies for others

The section of this report dealing with what worked for women researchers highlighted factors that contributed to those women building strong research profiles. In addition, interviewees were specifically asked about the types of advice or strategies they would recommend to others. Reviewing the interviews, it is clear that while these women have been able to establish strong, and in many cases, outstanding research profiles, many have faced professional and personal challenges along the way. As one interviewee commented, 'I don't want to pretend I am a "super woman"'. The advice offered was often directed towards early career researchers or those getting started, but much of what was discussed also has application for researchers at later career stages as well. A broad overview of the advice and strategies offered by the interviewees is presented below.

6.1 Know why you're here

One senior researcher began her advice by throwing out a challenge to those contemplating a research career. 'First of all', she said, 'they should ask themselves a question – why do they want to do research (or why they don't want to do research)?' Understanding what you wanted from being a researcher and whether this really was the right path for you was a critical first step, she felt.

6.2 Know what interests you

Given that passionate engagement or basic enthusiasm was central to what made so many interviewees 'tick', it was not surprising that it featured in their advice to others. 'Research what really interests you', one woman advised. This sentiment was developed by another who explained why passion and interest made such a difference to her:

...if you've got that passionate driver, you will be prepared to put in the longer hours, to put in the bit extra, to work a few weekends, to sacrifice a few holidays, in order to make it pay off later on. And it does.

Noting down exciting ideas and keeping a record of them was also thought to be important because it lets you focus on the business at hand, but not lose sight of other potential projects. One senior lecturer told us how she had 'a whole filing cabinet full of ideas'. 'Every time I have an idea', she said, 'I write it down and put it in my computer or filing cabinet'.

6.3 Establish a track record early

Getting off to a good start in the immediate post-doctoral years was felt by many interviewees to be the single most important step anyone could make. Advice here revolved around finding suitable projects, building up publications, seeking internal research funds and learning the fundamentals of grant writing. In the words of one researcher:

The first five years of your career are probably pretty critical and you really get yourself established, and you establish a network, and get yourself linked up, and hopefully get some funding, and get your first couple of students.

Different researchers had different recommendations on how to manage those early years, but some felt that initially capitalizing on or extending doctoral research was often a good way to start a new research project and that this could form the basis for initial applications for internal research funds:

I would probably recommend that they focus on an area – whether it's a specific small area from their PhD or something that they wanted to follow up from their PhD – I'd focus on that, something of particular interest which you could then develop into a research project. I know from my own experiences that there are so many things that you could pull out of that...so you could develop one of those areas into a research project.

I'd recommend that they apply for internal funding such as we have – our departmental funding schemes twice a year or our faculty schemes – and use that money to perhaps do a bit of pilot study or to extend something from your PhD. And then do something else like apply for another fund, a bigger fund and use that as...a track in which you can progress towards something like an ARC, you know, as an early career researcher, but in a realistic time, say within four or five years.

Establishing a publication track record was considered essential as this would form the basis of all future grant applications. 'Do your research in units that will turn into publications', was what one interviewee advised, as well as being strategic about where you chose to publish. Another put it this way, 'because a research career means always having to apply for funding you need a good track record which is based on your publications, so that's really got to be the focus of what you do'. It is also essential to look closely at those competitive grant schemes (ARC, NHMRC) that have specific categories for, or give priority to, Early Career Researchers and who assess those applicants relative to opportunity.

Looking ahead to those grant applications, the importance of learning how to write good applications was also noted:

I'd say make sure... that you actually learn to write a research grant application, you know, even if it's one for \$500 to pay for your tram fare into the city to interview some CEOs or whatever you want to be doing. So I'd say learn to write a grant application. I think that's one of the best things that I've learnt over time and [the way you learn] to do that is looking at other people's grant applications and giving and getting feedback.

Since you have put so much work into the application, whether or not it is successful, trying to develop an article out of that work was suggested. And if all that planning and work is not showing results as quickly as you might like, in the words of one interviewee, 'Don't get pissed off, keep on trying'.

6.4 Build a strategy

Having a clear plan of what you want to achieve in research was recommended, with several researchers strongly advocating focusing on a defined set of objectives in order to establish yourself as a key figure in an area of your own. 'Where are you trying to head?' was the important question for one woman we talked to and she recommended identifying 'what your core business is' and using that to make clear decisions about what you will and won't do on the research front. Other researchers talked about the same need for focus and did so in the following ways:

My strategy – if I've taken one – over the years has been not to diversify too much, to make sure that I had discreet focal points that I could say 'right, I want to be an expert in areas A, B and C'.

A mentor once said to me find an untended garden, find an area that can be yours rather than looking at what's sexy in your field at the time and wanting to jump in and compete with the big guys. That's a bad idea because you'll just get friendly fire if get you nothing

else. It's better finding an area that you can say, this is mine...It can't be marginal, it has to be important, but it can be yours and you can be seen as an expert in that.

You're smart about the conferences that you attend, you turn those into publications, and you focus in a particular area so that you can get some economies of scale.

6.5 Develop a profile – get yourself known and noticed

Having a profile, both inside and outside the university, was felt to be important as it led to further contacts and research opportunities. And yet, simply being good at what you do doesn't necessarily get you noticed. For this reason, one relatively junior researcher recommended 'speaking up rather than thinking that...just being good and efficient and organised and so on will make you somehow come to people's attention. It doesn't'. While none of the researchers we talked to necessarily enjoyed pushing themselves forward, it was observed that 'you have to go into PR whether you like it or not'. Inside the university, getting yourself noticed might mean joining particular committees. In the words of one interviewee:

I think it's important...to focus on the research, but I think it's also important to get involved in other parts of the university, because that's when you build up contacts.

Outside the university, developing a profile was about getting yourself known in your field, nationally and internationally, through activities such as conferences and visits. As one researcher put it:

It's really good to get out there and just realise that you're not on your own and there are people out there doing similar things to you...developing the network and developing the contacts.

Another interviewee was quite explicit that her international profile was built in part on the fact that at conferences she asks 'more questions than any human being and I get asked to Chair and do things like that because I am a very active participant and also it's a way for me to proselytize about what research we do in Australia'. The more contact you have with others in your field, the greater the opportunity to develop collaborative relationships. But you want to be known and noticed for the right things and this means operating at all times with integrity. An experienced senior woman cautioned,

Try to be careful about what you're doing and what will help you to build credibility in your chosen field...be really careful about being professional in all senses.

6.6 Recognise and utilise the opportunities presented to you

Individual researchers do not necessarily have to make everything happen themselves. Many interviewees talked about the varied career opportunities that came to them through their immediate peers and contacts and how beneficial these had been. For example, one researcher reported how the 'accident' of being placed on a panel with two other women working in the same field led to a collaboration. 'Conferences are really good in that regard', she said, 'because they do try and fit you in with people who are similar to you'. Another researcher in the group reflected on how her research projects 'always come because people have approached me and said "do you want to do this" and I've said "yeah"'. For one Associate Professor, working on a project with a senior academic overseas led directly to further opportunities:

We maintained contact and she recently nominated me for the role of departmental editor of one of the top journals in the field. So that's a role that I don't think a non-American would have had access to if you didn't have that sort of personal network.

Such opportunities arose because of the formal and informal networks these women had built and maintained. And yet, building such networks does not have to be hard work. The simple advice one researcher gave was this:

If you have someone that you have worked with and you have worked with very well, keep [that relationship] and try to nurture it.

Another woman who had initially rejected the idea of networking ('an awful term') came to recognise it as quite a valuable process in practice:

When you meet people you like, follow them up. And I've done that, not a lot, but I've done that a little bit and usually the people who have knocked on my door have been people who I've met in some way and followed it up.

At the same time, it was clear that many researchers also considered it important to make their own opportunities, usually through being astute about their immediate environment. As one senior lecturer advised:

Learn the rules of the game. Figure out how the institution as a whole works. Figure out your place in it and your roads through it.

6.7 Collaborate with others on projects

As noted previously in this report, collaboration was identified by many researchers as a critical element in their success. Many began by collaborating with their original doctoral or postdoctoral supervisors or with mentors and senior colleagues and branched out from there as their networks grew. Some now work in the same way with their own postgraduate students and postdoctoral fellows. Finding good working partners was, therefore, a key piece of advice offered. Starting early on this was recommended:

The network of people that you, later on, collaborate formally and informally with is very important to build quite early in your career.

It was acknowledged that some women might hesitate at the prospect of collaborating or feel awkward about making initial approaches. In the words of one senior woman, such hesitation was counterproductive and she encouraged women to take up the challenge:

Women are not exploiting or exploring enough. They don't know that if they do not know how to do research, they need to partner or team with other good researchers: so they're hesitant to ask for help and I think it's just wrong. Doing team research is much more enjoyable.

Partnering with more senior and experienced researchers provided opportunities to learn and to gain the kinds of experience and skills that would ultimately make it possible to 'branch out on your own'. But participants were clear that successful collaborations were about 'valuing people, not using people'.

At the same time, not losing sight of yourself and your own career needs was recommended. As one woman observed:

Make sure that you are looking after your own publications, not just other people's. And I say that particularly because I work with some women who are extremely helpful – and

I have this same problem – I want to solve everybody else’s problems, and you kind of think mine are not worthy.

6.8 Make time and space for research

While the women interviewed had no miracle fix for balancing research time with teaching and administrative roles, they did have some strategies which they found helped them and most believed ‘you can always find time to do your research’. With respect to administration, there was consensus about being ‘smart in terms of what you pick up’. Being clear and firm about your commitment to any administrative role was also recommended, with one senior lecturer devising the following policy:

My rule of thumb is if I do take on a role I say, fine, I’ll do it for three years because it takes you the first year to sort of get it up and running, second year to get it working properly, and third year to hand it over.

While doing productive research work in their offices on campus was often difficult, one interviewee talked of how she would ‘just basically work in any minutes that I have spare’. In less than an hour you can check references, download grant guidelines, draft several paragraphs, edit existing work or commence a literature search. Many teaching and research academics were persuaded that the best model was blocking teaching in ways that permitted clear days for research: ‘it’s really chunking things which is so important. You’ve got to have chunks’. It was acknowledged that ‘everyone has different habits’, and so developing a pattern for giving research priority in your week and learning how you work best and sticking to it was recommended. One Associate Professor described her research day in the following manner:

People know on Wednesdays I’m just not going to respond to things...they can all get me if they need me, but I don’t want chats on Wednesdays. Then I have a project to work on. I try and organise myself so that the hard thinking has to be done in the morning, otherwise I’ll procrastinate and put it off, and I just keep working. I’ll stop for lunch – sometimes I take myself out to a café for lunch, but it’s only half an hour, but I’ll take a paper with me and read. And my local café knows me: I’ve written numerous papers and books sitting in their café! And then I’ll just go back. Four o’clock I’ll look at the email again and keep trying to finish off whatever I can finish off at the end of the day.

Do not wait for those magical stretches of ‘free time’ because they may never arrive.

6.9 Don’t seek perfection (or when good enough IS good enough)

Getting your work out there, rather than hanging on to it was strongly advised. The women interviewed knew from their own experiences that this was sometimes hard to do because of the sense that ‘you can always have done something better, you can always have read something more, you can always refine that paper’. But they felt you needed to ‘be willing to take some risks’. One researcher, in particular, took heart and learned to get over this hurdle by recognising that everyone – even senior and established researchers – gets knock backs. It was a salient lesson for her ‘hearing some of the top researchers we have in this department talking about that and their own experiences and realising that everyone goes through this’. This meant that now:

I'm not scared of going for really high level journals and it's paid off just recently: I've got an article – I'm in revise, resubmit – but I know it's going to be published now. And probably a couple of years ago, I wouldn't have done that, I would have been too scared.

6.10 Don't lose sight of the important things in life

One interviewee reminded us that 'work is not something that should be your reason for living', and a number of the women we spoke to really wanted this point to come through in the advice they gave others. 'Don't miss out on other aspects of your life that are really, really important', was how one woman phrased it, while another was equally clear about knowing your limits and being forgiving of yourself. In her experience, she could not be 'an excellent partner, an excellent mother, an excellent daughter, an excellent friend and an excellent researcher'.

7. Recommendations and actions

While the *When Research Works for Women* project specifically focused on women's research experiences and those factors that support or impede women's increased research productivity, the recommendations arising from the findings of the study point to ways in which the research environment at Monash University could be improved to the benefit of all staff engaged in research. The recommendations below relate to a range of policies, processes and support structures and if implemented will assist in placing Monash among the leading Australian universities for research performance.

Recommendations

Workload Models

- Review faculty/school/unit workload models to ensure that the models in place provide adequate recognition of research activities, including publications, grant monies and HDR supervision.

ACTION: Deans and Heads of Schools/Departments

- Develop transparent workload formula calculations which reflect expectations according to level so that there is an appropriate distribution of teaching, research and administration amongst staff in departments and schools.

ACTION: Deans and Heads of Schools/Departments

Teaching and Research

- Include in Faculty reviews of curriculum the investigation of options to maximise the teaching and research nexus.

ACTION: Associate Deans (Teaching) and Associate Deans (Research)

- Audit the different practices university-wide and sector-wide with respect to the concentrating of research and teaching time in order to establish a set of models that could be implemented on a wider basis.

ACTION: Associate Deans (Teaching)

Performance Management Scheme

- Modify the Career Development Plan section of the Performance Management Scheme for academic staff to identify the stage at which a staff member is on the promotion cycle which will necessitate discussion of career directions and steps towards promotion. The Career Development Plan should contain and must dovetail with the staff member's Research Program Plan and should dovetail with the Research, Scholarship and Creative Activities component of the Engagement Profile.

ACTION: Divisional Director, Human Resources and Manager, Staff Development Unit

- Investigate relationship between the Performance Management Scheme and Staff Workload Schemes to ensure that the relationship is meaningful and that there are no competing directives within these two schemes.

- ACTION: Divisional Director, Human Resources and Deans

Support for early career researchers

- Establish early career researcher networks (which include postdoctoral researchers and other staff on research fellowships) at faculty level to provide peer mentoring opportunities and reduce the likelihood of isolation.

ACTION: Associate Deans (Research)

- Ensure all early career researchers receive relevant professional development and career planning from appropriate staff such as performance supervisors or heads of units/schools.

ACTION: Associate Deans (Research) in conjunction with Departmental or School level Research Coordinators

- Provide early career researchers with a range of professional development programs (how to attract funds, publish and promote research) to support their research capacities.

ACTION: Director, Research Office

- Review access to research travel and conference funds for early career researchers to enhance their abilities to establish international connections.

ACTION: Associate Deans (Research)

- Include in induction programs for academic staff (including research-only staff) clear information on the university's research objectives, its research and research training plan, research targets and research support services.

ACTION: Divisional Director, Human Resources

- Review availability and types of internal funds to ensure a range of small and large funds are available to early career-researchers so that they have an opportunity to develop or strengthen a research track record.

ACTION: Associate Deans (Research)

- Encourage senior academic staff applying for large external grants to include more junior staff, particularly women, on their research teams.

ACTION: Associate Deans (Research) and Director, Research Office

Research-Only Staff

- Investigate ways to support research-only staff to continue critical research programs that are subject to rolling fixed term funding.

ACTION: Deputy Vice-Chancellor (Research)

- Incorporate into the university's academic promotion procedures a process for promoting research-only staff.

ACTION: Senior Deputy Vice-Chancellor

- Investigate status of maternity leave provisions for research-only staff on grant funding to clarify and if necessary, develop opportunities to bring maternity leave benefits into line with other staff at Monash University.

ACTION: Divisional Director, Human Resources

Work Life Balance

- Investigate the application of work life policies in relation to academic staff and develop ways to tailor these to fit the specific needs and circumstances of academic staff.

ACTION: Divisional Director, Student and Community Services

- Promote the university's Work Life Strategy and its potential benefits more widely.

ACTION: Divisional Director, Student and Community Services

- Include work life considerations and information about the implementation of flexible work options in Head of Department/Manager training.

ACTION: Divisional Director, Student and Community Services

Communication of Policy

- Enhance communication of key university policies and procedures to ensure that academic staff in faculties have access to information affecting their employment.

ACTION: Divisional Director, Human Resources and Deans

Recognising Women in Research

- Include the achievements of women researchers in any material promoting faculty research activities.

ACTION: Associate Deans (Research) and Faculty marketing staff

- Include in any 'research week' celebrations a focus on the achievements of women in research.

ACTION: Deputy Vice-Chancellor (Research), Director, Research Office and Director, Equity and Diversity Centre

- Develop publications, such as a website or booklet, that profile women (at all levels) in research at Monash University to highlight the achievements of women and provide role models for other women.

ACTION: Deputy Vice-Chancellor (Research), Director, Research Office, Director, Equity and Diversity Centre, University Marketing and Public Affairs

Ongoing Support for Women Researchers

- Continue offering the Advancing Women in Research seminars and the University-Wide Mentoring Scheme for Women.

ACTION: Director, Equity and Diversity Centre

- Review utilisation of the Online Senior Women's Register and promote more widely with a view to it becoming a key resource for women at all levels seeking career development mentoring and support.

ACTION: Director, Equity and Diversity Centre

- Investigate ways of supporting women returning from maternity leave to re-establish their research activities and programs.

ACTION: Divisional Director, Human Resources

Outside Studies Program (OSP)

- Investigate ways to provide clearer information on the nature of the OSP scheme and criteria for successfully applying.

ACTION: Deputy Vice-Chancellor (Research)

- Incorporate information on OSP policy and procedures into academic staff induction programs and material.

ACTION: Divisional Director, Human Resources and Deans

Administrative Workloads

- Ensure administrative roles and duties are distributed equitably across staff and that such duties are reflected appropriately in workload formulae.

ACTION: Deans and Heads of Schools

- Encourage women to discuss administrative workloads and their relationship to research output with Performance Management Supervisors

ACTION: Performance Management Supervisors

- Investigate optimal administrative structures to ensure that academic staff are relieved of administrative and clerical work that is best undertaken by support staff with appropriate skills.

ACTION: Deans and Faculty Managers

- Investigate whether forms of research support in place of, or in addition to, teaching relief should be offered to senior staff undertaking significant administrative loads.

ACTION: Deans and Heads of Schools.

8. Bibliography

- Acacio, F. et al. (1996). Great performers: Women who research. In L. Lord, A. Kinnear, F. McKenzie and L. Pike, (eds.), *Dancing on the glass ceiling: New century, new workplace, new leaders: Proceedings of the 4th International Women in Leadership Conference* (pp. 63-70). Perth: Edith Cowan University.
- Acker, S. and Armenti, C. (2004). Sleepless in academia. *Gender and Education*, 16(1), 3-25.
- Acker, S. (2003). Living the academic life. In S. Dinham, (ed.), *Transforming education: Engaging with complexity and diversity* (pp. 60-71). Deakin West, WA: Australian College of Educators.
- Armenti, C. (2004). Women faculty seeking tenure and parenthood: Lessons from previous generations. *Cambridge Journal of Education*, 34(1), 66-83.
- Asmar, C. (1999). Is there a gendered agenda in academia? The research experience of female and male PhD graduates in Australian universities. *Higher Education*, 38(3), 255-273.
- Asmar, C. (1997). Prohibited or inhibited? Academic women's access to research funding in Australia. In R. Murray-Harvey, and H.C. Silins, (eds.) *Proceedings of the Higher Education Research and Development Society of Australasia (HERDSA) 1997 International Conference* (pp. 32-35). Adelaide, SA: HERDSA.
- Austen, S. (2004). Gender differences in academic rank in Australian universities. *Australian Bulletin of Labour*, 30 (2), 113-133.
- Bagihole, B. and White, K. (2003). Created in their image: An analysis of male cultural hegemony in higher education in Australian and the United Kingdom. In B. Groombridge and V. Mackie, (eds.), *Re-searching research agendas: Women, research and publication in higher education: Proceedings of the Australian Technology Network – Women's Executive Development (ATN-WEXDEV) 2003 Research Conference* (pp. 1-12). Perth, WA: Learning Support Network, Curtin University of Technology.
- Baxter, L., Hughes, C. and Tight, M. (1999). Researching. In Baxter, L., Hughes, C. and Tight, M., *The academic career handbook* (pp. 111-136). Buckingham and Philadelphia: Open University Press.
- Bazeley, P. et al. (1996). *Waiting in the wings: A study of early career academic researchers in Australia*. University of Western Sydney, Macarthur, NSW: National Board of Employment, Education and Training, Australian Research Council, Commissioned Report No. 50.
- Bell, S. (2003). Writing (research) culture. In B. Groombridge and V. Mackie (eds.), *Re-searching research agendas: Women, research and publication in higher education: Proceedings of the Australian Technology Network – Women's Executive Development (ATN-WEXDEV) 2003 Research Conference* (pp. 13-22). Perth, WA: Curtin University of Technology Learning Support Network.
- Bischoff, L.G. and O'Laughlin, E.M. (2005). Balancing parenthood and academia: Work/family stress as influenced by gender and tenure status. *Journal of Family Issues*, 26(1), 79-103.
- Bornholt, L., Poole, M., and Summers, F. (1997). An international study of the gendered nature of academic work: Some cross-cultural explorations. *Higher Education*, 34(3), 373-396.
- Bornholt, L., Coote, K., Hattie, J., and Poole, M. (1999). The nature of academic work in Australia for men and women, across discipline area and academic rank. In *Winds of*

- change: Women and the culture of universities conference proceedings*, (pp. 395-401). Sydney, NSW: University of Technology.
- Burton, C. (1997). *Gender Equity in Australian University Staffing*, Canberra, Department of Employment, Education and Training and Youth Affairs.
- Casson, C. and Devos, A. (2001). *Enabling women in research – an evaluation of the first year of the WomenResearch21 program*. Sydney, NSW: University of New South Wales .
- Casson, C. and Devos, A. (2003). *Researching women: An evaluation of the second year of the WomenResearch21 program*. Sydney, NSW: University of New South Wales.
- Castleman, T., Allen, M., Bastalich, W., and Wright, P. (1995). *Limited Access: Women's Disadvantage in Higher Education Employment*, National Tertiary Education Union.
- Chrisler, J.C. (1998). Teacher versus scholar: Role conflict for women?. In L.H. Collins, J.C. Chrisler and K. Quina (eds.), *Career strategies for women in academe: Arming Athena* (pp.107-137). Thousand Oaks, CA: Sage.
- Cooper, T. and Kulisa, J. (2003). The publication process: reflections on mentoring. In B. Groombridge and V. Mackie (eds.), *Re-searching research agendas: Women, research and publication in higher education: Proceedings of the Australian Technology Network – Women's Executive Development (ATN-WEXDEV) 2003 Research Conference* (pp. 91-100). Perth, WA: Curtin University of Technology Learning Support Network.
- Cox, R., Eade, G., Gregor, S., and McNamee, J. (1995). Women as researchers: A case study. In A.M. Payne and L. Shoemark (eds.), *Women, culture and universities: A chilly climate? Proceedings from the National Conference on the effect of organisational culture on women in universities*, (pp. 209-213). Sydney, NSW: University of Technology, Sydney Women's Forum.
- Curthoys, A. (1995). Taking advantage of disadvantage: Women and research. In A.M. Payne and L. Shoemark (eds.), *Women, culture and universities: A chilly climate? Proceedings from the National Conference on the effect of organisational culture on women in universities*, (pp. 205-208). Sydney, NSW: University of Technology, Sydney Women's Forum.
- Curthoys, A., Johnson, L., Mackinnon, A., and Moses, I. (1995). Research development for women: Some signs of a thaw? In A.M. Payne and L. Shoemark (eds.), *Women, culture and universities: A chilly climate? Proceedings from the National Conference on the effect of organisational culture on women in universities* (pp. 214-215). Sydney, NSW: University of Technology, Sydney Women's Forum.
- Deane, E., Johnson, L., Jones, G., and Lengkeek, N. (1996). *Women, research and research productivity in the post-1987 universities: Opportunities and constraints*. University of Western Sydney, Nepean, NSW: Department of Employment, Education, Training and Youth Affairs, Evaluations and Investigations Program, Higher Education Division.
- Devos, A. (2000). Productive learning or technologies of government: A Foucauldian reading of the politics of professional development in higher education. *Annual conference of the Australian Association of Research in Education*. Retrieved April 1, 2005 from www.aare.edu.au/00pap/dev00496.htm.
- Devos, A., McLean, J., and O'Hara, P. (2003). The potential of women's programmes to generate institutional change. In C. Bond and P. Bright (eds.), *Research and development in higher education: Volume 26: Proceedings of the 2003 Annual International Conference of the Higher Education Research and Development Society of Australasia (HERDSA)* (143-151). Christchurch, NZ: HERDSA.

- Devos, A. and McLean, J. (2000a). 'Let a thousand flowers bloom': women, research and the (ongoing) struggle for systemic change. *Annual Conference of the Australian Association of Research in Education*, Retrieved April 1, 2005 from www.aare.edu.au/00pap/dev00497.htm.
- Devos, A. (2000b). WomenResearch21: Responding to the issues for beginning women academics. *HERDSA News*, 22(2), 11-13.
- Dunkin, M.J. (1992). Stability and change in determinants of academic career advancement. *Higher Education Research and Development*, 11(2), 191-201.
- Forgasz, H. and Leder, G. (2003). Academics: How do they spend their time?. In *Educational research, risks and dilemmas: NZARE/AARE Conference 2003*. Retrieved April 1, 2005 from www.aare.edu.au/03pap/for03109.pdf.
- Forster, N. (2000). A case study of women academics' views on equal opportunities, career prospects and work-family conflicts in a British university. *Women in Management Review*, 15(7), 316-327.
- Gallos, J.V. (1996). On becoming a scholar: One woman's journey. In P.J. Frost and M.S. Taylor (eds.), *Rhythms of academic life: Personal accounts of careers in academia* (pp. 11-18). Thousand Oaks, CA: Sage.
- Godden, J. (1996). From new to successful researcher: enhancing the research skills of academics. In J. Godden, A. Brew, and E. Roe (eds.), *Learning research skills: Programs and issues: Reports on the research skills development program for academic staff 1990-1995* (pp. 4-15). Sydney, NSW: University of Sydney Centre for Teaching and Learning.
- Grant, B. and Knowles, S. (1999). Figuring ourselves as writers. In *Winds of change: Women and the culture of universities conference proceedings*, (pp. 659-666). Sydney, NSW: University of Technology.
- Groombridge, B. and Worden, S. (2003). Values, visions, strategies and goals: Is coaching a viable pathway?. In B. Groombridge and V. Mackie (eds.), *Re-searching research agendas: Women, research and publication in higher education: Proceedings of the Australian Technology Network – Women's Executive Development (ATN-WEXDEV) 2003 Research Conference* (pp.175-185). Perth, WA: Curtin University of Technology Learning Support Network.
- Harley, S. (2003). Research selectivity and female academics in UK universities: From gentleman's club to barrack yard to smart macho? *Gender and Education*, 15(4), 377-403.
- Harman, G. (2000). Academic work and values in Australian higher education, 1977 to 1997", in Tight, M., (ed.), *Academic work and life: What it is to be an academic and how this is changing*, (pp. 73-115). New York, NY: JAI, Imprint of Elsevier Science.
- Higgs, J., (2003). Making a Difference. In H. Edwards, D. Baume and G. Web (eds.), *Staff and educational development: Case studies, experience and practice from higher education*, (pp. 60-67). London, UK, and Sterling, VA: Kogan Page.
- King, T.C. (1996). Rounding corners: An African American female scholar's pretenure experiences. In P.J. Frost and M.S. Taylor (eds.), *Rhythms of academic life: Personal accounts of careers in academia* (pp. 193-99). Thousand Oaks, CA: Sage.
- Kirkpatrick, D. (1997). Women's perceptions of research. In R. Murray-Harvey and H.C. Silins (eds.), *Proceedings of the Higher Education Research and Development Society of Australasia (HERDSA) 1997 International Conference* (pp. 390-396). Adelaide, SA: HERDSA.

- Landry, R., Traore, N., Godin, B., (1996). An econometric analysis of the effect of collaboration on academic research productivity. *Higher Education*, 32(3), 283-301.
- McCormack, C. and Pamphilon, B. (2003). Squeezing postgraduate research into an already bursting agenda: Experiences of women academics as postgraduate research students. In B. Groombridge and V. Mackie (eds.), *Re-searching research agendas: Women, research and publication in higher education: Proceedings of the Australian Technology Network – Women’s Executive Development (ATN-WEXDEV) 2003 Research Conference* (pp.121-130). Perth, WA: Curtin University of Technology Learning Support Network.
- McElrath, K., (1992). Gender, career disruption and academic rewards. *Journal of Higher Education*, 63(3), 269-281.
- Moore, T. (2003a). ‘Corporate care’ disguising sexism in academic work place: Discourses in a ‘post-feminist’ age. In *Educational research, risks and dilemmas: NZARE/AARE Conference 2003*. Retrieved April 1, 2005 from www.aare.edu.au/03pap/moo03246.pdf.
- Moore, T. (2003b). Feeding the greedy institution: Heartburn and burnout in the workplace. In B.A. Knight and A. Harrison (eds.), *Research perspectives on education for the future* (pp. 117-130). Flaxton, QLD: Post Pressed.
- Murphy, P.S. (1995). Research policy, quality assurance and affirmative action. In A.M. Payne and L. Shoemark (eds.), *Women, culture and universities: A chilly climate? Proceedings from the National Conference on the effect of organisational culture on women in universities* (pp. 223-227). Sydney, NSW: University of Technology, Sydney Women’s Forum.
- Park, S. (1996). Research, teaching and service: Why shouldn’t women’s work count? *Journal of Higher Education*, 67(1), 46-84.
- Probert, B. (2005). ‘I just couldn’t fit it in’: Gender and unequal outcomes in academic careers. *Gender, Work and Organization*, 12(1), 50-72.
- Saunders, S. et al. (1999). Writing along new lines. In *Winds of change: Women and the culture of universities conference proceedings*, (pp.705-713). Sydney, NSW: University of Technology.
- Sepoe, O. (2003). Gender, research and empowerment: Reflections of a researcher. In B. Groombridge and V. Mackie (eds.), *Re-searching research agendas: Women, research and publication in higher education: Proceedings of the Australian Technology Network – Women’s Executive Development (ATN-WEXDEV) 2003 Research Conference* (pp.153-157). Perth, WA: Curtin University of Technology Learning Support Network.
- Schneider, A. (1998). Why Don’t Women Publish as Much as Men? *The Chronicle of Higher Education*, September 11, 1998, A14-16.
- Soliman, I. (1999), Organisational supports for professional development in research. In A.M. Payne and L. Shoemark (eds.), *Women, culture and universities: A chilly climate? Proceedings from the National Conference on the effect of organisational culture on women in universities* (pp. 223-227). Sydney, NSW: University of Technology, Sydney Women’s Forum.
- Taylor, S.E. and Martin, J. (1987). The present-minded professor: Controlling one’s career. In M.P. Spencer, M. Kehoe, and K. Speece (eds.), *Handbook for women scholars: Strategies for success* (pp. 41-59). San Francisco: Americas Behavioural Research Corp.
- Valian, V. (1985). Solving a work problem. In M.F. Fox (ed.), *Scholarly writing and publishing: Issues, Problems and Solutions* (pp. 99-110). Boulder, CO: Westview.

- van Anders, S. (2004). Why the academic pipeline leaks: Fewer men than women perceive barriers to becoming professors. *Sex Roles*, 51(9/10), 511-521.
- Ward, K. and Wolf-Wendel, L. (2004). Academic motherhood: Managing complex roles in research universities. *Review of Higher Education*, 27(2), 233-257.
- White, K. (2004). The leaking pipeline: Women postgraduate and early career researchers in Australia. *Tertiary Education and Management*, 10(3), 227-241.
- White, K. (1997). *Women and research at Monash University*. Clayton, Victoria, Monash University Equal Opportunity Unit.