

Counting women in the Australian fire services

Merilyn Childs argues that there are inadequacies in current data reporting mechanisms and there is an urgent need for the inclusion of productive diversity in the fire services

Abstract

This paper argues that it is time to take into account the existing and potential roles women do and could play as paid, retained and voluntary fire fighters in the Australian fire services. Specifically, it argues that women must be 'counted' and 'made to count' more effectively through the adoption of more rigorous reporting of labour market statistics by agencies across Australia that deploy fire fighters. It presents an analysis of the inadequacies of current data reporting mechanisms, as exemplified by the statistical profile of women fire fighters for the period 2002-2003 in Australia. It concludes by arguing that there is an urgent need for the inclusion of productive diversity in the fire services in future national research priorities.

Background

It is striking that very few women are employed as paid full-time fire fighters within fire and rescue agencies within Australia today – on average, less than 5 per cent and in some states less than 2 per cent (Childs 2004). It is striking because it is noticeably at odds with other public sector employment, and out of step with wider Australian labour market trends, where female participation in paid and unpaid labour is significant, increasing from 44.7 per cent in 1983 to 55.9 per cent in 2003 (Australian Bureau of Statistics, 2005). It is also at odds with the police services in Australia, where female participation in uniformed labour had reached approximately 10 per cent by 1995 (Wilkinson and Froyland 1996). To place the participation of women in fire fighting in context, it is useful to consider data reported in New South Wales by the Office of Equal Opportunity in Public Employment (Premier's Department) for the period 2002, as shown in Table 1.

Table 1. Statistics for workforce diversity in NSW Public Sector agencies for 2002.

The figures for women include all women in each agency, both operational (uniformed) and non-operational (civilian)

Level	Total staff	Respondents	Men	Women
Ambulance Service	3,049	51%	74 %	26 %
NSW Police	17,738	58 %	68 %	32 %
NSW Fire Brigade	3,375	100 %	95 %	5 %

Source: <http://www.eeo.nsw.gov.au/statistics/>. Downloaded 12 November 2005, Office of Equal Employment in Public Employment

Anecdotally, the emergency services volunteer and retained labour market appears to be in trouble, particularly in rural areas. Ageing populations, population drifts, two-income families, declining social capital, and competition between emergency service agencies for labour are contributing factors. Although competition to enter paid full-time fire fighting work remains strong, social change and change to the work fire fighters do (Childs et al 2004, 2005b) means there exists considerable pressure on such agencies to develop internal labour markets that strongly reflect the diverse profile of the Australian community. This is seen by some as a critical factor in managing the risk of changing threat environments. As Brian Robertson, the Commissioner for Fire and Emergency Planning in the United Kingdom commented in 2002,

[...] our Brigade must be prepared to deal with a complex range of risks and hazards, from terrorist attacks and major incidents to domestic and industrial fires, road accidents, other special services and the frequent resource-consuming calls involving abandoned vehicles, rubbish and open spaces. London's diversity also needs to be reflected in our workforce,

because this is the way in which we will be able to provide a truly appropriate service that is responsive to the needs of those who use it. We are making steady and ever-faster progress in meeting our local recruitment targets and this year we are devoting further resources to this task (Robinson 2002 p.2).

Yet, if you put the word 'diversity' in the same sentence as 'fire fighting' in any key word search on the Internet it soon becomes obvious that these words, when combined, refer largely to ecological diversity, diversity in building codes, or approaches to risk management. They do not refer to the meaning given to this term by the Australian Government's multicultural policy; that is 'utilising the language and cultural diversity of Australia's workforce and population for the economic benefit of all Australians'. Diversity may be 'a touchstone of the Australian nation' (Diversity Australia) but arguably it has yet to become a touchstone of the fire services industry or the Australian emergency services industry more generally.

Enarson and Meyreles (2004, p.5) recently argued there is a 'surprising lack of attention to gender' in terms of emergency management literature in Australia. The participation of women in emergency management—including the fire services—is critical through service delivery (front-line and support personnel), as well

as through community participation (as community members). Yet strategies to enhance community safety and strengthen community resilience in Australia rarely include questions about gender (Childs, 2005a) with few exceptions (but see Cottrell and Anderson-Berry 2002, Dolan, date unknown).

Gender reporting of female fire fighters in Australia

What is known about the participation of women in the fire services in Australia? It takes little time to realise that scant interest has been paid to exploring this question in a co-ordinated fashion. Unlike the policing service, the fire services do not have a body such as the Australian Institute of Criminology in place to collect and analyse data. Nor does a process exist whereby labour market statistics might be strategically developed and analysed to inform national and state based decision-making. The only regularly available systematically reported labour market statistics of internal labour markets of Australian fire services agencies are through Annual Reports published online (although some states/territories provide additional reports through state-based equal employment agencies). Therefore Annual Reports, limited as they undoubtedly are, were used as the basis for initiating a snap-shot of the participation of women in fire fighting in Australia. This approach is discussed further in the methodology section.

Methodology

In attempting to find some answers to the question *What is known about the participation of women in the fire services in Australia?* a number of methodological problems were faced. The first problem was the creation of a workable definition for 'women in the fire services' that enabled the collection of data that acknowledged that women's fire fighting labour was diverse. Women's participation in the Australian labour market remains characterised by a diversity of experiences, such as unemployment, underemployment, casualisation, voluntary labour, lower earnings on average, and the need to find work-life balance (Australian Bureau of Statistics, 2003). A definition was sought that captured 'difference' in the way women engage in fire fighting work. It was known from field experience that women engage in fire fighting work in different types of agencies and make different types of contributions, for example:

- as paid full-time personnel sometimes deployed as *remote-area fire fighters* in land management agencies;
- as *volunteer fire fighters* in bushfire fighting agencies (and sometimes doing paid labour in civilian roles in the same agencies, or other agencies with fire fighting functions); or
- as *full-time fire fighters* in fire and rescue agencies doing a whole range of first-responder and community education tasks only some of which were related to fire fighting.



What is known about the participation of women in the fire services of Australia?

Consequently, the decision was made that the primary interest of the study was to ask questions about women in fire fighting, regardless of the nature of their employment, or the particular industry sector they were deployed within. For this reason, and because the aim was to better understand the participation of women in fire fighting regardless of where they did their work, 'fire fighting work' was defined broadly in the following way:

By fire fighting work, we are referring to fire fighting as part of urban fire and rescue, bushfire, land management, air services, and defence services. That is, all fire fighting done by women, regardless of whether it is paid, casual or volunteer.

The second problem to be solved was to identify sources of existing data that might be analysed to inform the study. It became clear that the Australian Bureau of Statistics' (ABS) labour market data could not be relied upon. The Australian Standard Classification of Occupations (ASCO) provided only two definitions of fire fighters—Fire fighter and Senior Fire fighter. These categories do not adequately reflect the population definition nor the reality of fire fighting work in Australia. In addition, where ABS statistics were available for the category 'volunteer' the data itself was not helpful to this study. For this reason, the decision was made not to use ABS statistics as they would not provide a comprehensive national overview of the categories being mapped.

Another source of data might have been provided directly through surveys sent to Human Resource Departments of fire fighting agencies. However, a field trial of this approach encountered a reluctance and suspicion on the part of some agencies to provide data, and difficulty validating data given by others. The approach seemed ad hoc and flawed. Consequently, and in the absence of other data sources, a decision was taken to mine existing data reported in the public domain in Annual Reports (1996-2004), by all fire services agencies in Australia. The tentative assumption was made that human resource departments would have initially provided the data for these reports. This data source was supplemented, from time to time and for varying reasons, by internal fire agency documents, and even, on rare occasions, by verbal account. Data about internal labour markets, including gender breakdowns, was developed into a typology that included careful notes about the numerous limitations of the data. For the purposes of this paper, selections of data for the period 2002-2003 are reported.

In the early stages of the study it was realised that statistical reporting was often incomplete, unreliable, confusing, and misleading. It was conjectured that no particular priority had been placed on developing high quality information about the fire services labour market. Consequently, although data is reported here, it is done so with the accompanying argument that better reporting mechanisms need to be developed as a

Table 2. Statistical data – women employed as career and retained fire fighters 2002–2003 in fire fighting agencies dependent on full-time fire fighters

Agency	Data source	Total career	Total female (career)	Percent of females/career	Total retained	Total female (retained)	Per cent of females/retained	Total female career and retained	Per cent of females career and retained
NSWFB NSW	Annual Report	3,214	Not reported	Not reported	3,249	Not reported	–	191	2.9 %
TFS (Tas)	Annual Report	251	Not reported	Not reported	Not reported	Not reported	–	Not reported	–
MFB (Vic)	MFBB HR	1,508	26	1.7 %	Not reported	Not reported	–	Not reported	–
QF&R (Queensland)	Annual Report	4,143	Not reported	Unclear	1,936	Not reported	–	Not reported	–
ACTFB (ACT)	Annual Report	287	5	1.7 %	0	Not reported	–	N/A	–
FR&S (WA)	Annual Report	827	17	2 %	Not reported	Not reported	–	Not reported	–
MFS (SA)	Annual Report	935	16	1.7 %	Not reported	Not reported	–	Not reported	–
TOTALS		11,165	Unreliable						

national priority, not only for women fire fighters, but as means of proving a credible and co-ordinated evidence for labour force planning in this industry. The figures and conclusions reported here are therefore tentative, despite the use of publicly reported statistics.

Volunteer agencies, for example, published a figure for total volunteers but this was not reported on the basis of gender breakdown, nor was it possible to ascertain from these 'broad brush' figures if the volunteers were front line operational fire fighters or those providing operational support functions such as communications, catering, transport, or providing administrative functions. Data collected from land management agencies similarly lead to problems of interpretation. While total workforce figures were available, and gender breakdowns provided, it was not made clear, even through cross-referencing, if these operational personnel had also provided fire fighter functions.

It was clear that it was not possible to report demographic findings of any reliability at all prior to 1996. Prior to 1996 Annual Reports were unreliable, incomplete or conflated statistics in such a manner to make extrapolation from them impossible. This hinted that the issue had only just begun to be taken seriously in terms of reporting. In addition, legislative requirements to report male/female employment patterns only applied to paid personnel so it was not possible to gain reliable data about volunteer women fire fighters. Even where female employment was reported, many agencies saw no need to differentiate women on the basis of their employment categories and

functional areas, although this was often done for males. An educated guess was made that conflation of figures created an impression of greater numbers of uniformed women than actually existed. Tables 2 and 3 show where data was not available or unreliable.

Statistical overview

Typical of statistical reporting was the conflation of 'career' and 'retained' women fire fighters into one figure.

It can be seen that in the 2002-2003 reporting period NSW (NSWFB) 2.9 per cent of fire fighters were women, including retained and career, or 191 women fire fighters of a total 6463 personnel (male and female). In Queensland (QF&R) women made up 6 per cent of fire fighting personnel (a total of 6079 career and retained) but this figure is a conflation across all departments, so it is impossible to be sure what it means. Years of fieldwork indicate that fire fighting agencies argue there is a difference between the skills of 'career' and 'retained' or 'volunteer' personnel, and it is (anecdotally) notoriously difficult for retained or volunteer personnel to gain employment through general recruitment campaigns for paid permanent fire fighters. So the statistical conflation seems odd.

In volunteer fire fighting agencies reported figures appear to have even less meaning. In NSW RFS for example, only 'total' figures were reported – 570 career personnel, and 67,058 volunteers. Gender breakdowns were not available in the 2002/03 reporting period. This was similar in the Northern Territory. In the

Table 3. Statistical data– women deployed in paid and volunteer positions 2002–2003 in fire fighting agencies dependent on volunteer fire fighting labour

Agency	Data source	Total career	Total female (career)	Total volunteer	Total female (volunteer)
RFS (NSW)	Annual Report	570 (operational and support personnel conflated)	Not reported	67,058	Not reported
CFA (Vic)	Annual Report	425	Not reported	42,607	4,720 (identified as operational)
TFS (Tas)	Annual Report	251	Not reported	4,866	621 (operational and support personnel conflated)
RFB (Qld)	Annual Report	72 (perm full and casual staff)	Not reported	48,677 (includes RFB, chief fire wardens and vol. fire wardens)	Not reported
BFS (WA)	Annual Report	Not reported	Not reported	21,168	Not reported
CFS (SA)	Annual Report	69 (all personnel conflated)	14 (5 operational roles)	16,280	1,271
TOTALS		1,387		151,979	Unreliable



Australian fire services agencies need better mechanisms for reporting women's participation in operational and support roles.

Victoria CFA there was clear reporting of total numbers of volunteers, as well as a gender breakdown (11 per cent or 4,720 operational volunteer women). However, it was unclear what these women do. The same can be said for Tasmania, where the percentage of women was shown (12.8 per cent) but it was not possible to know what their roles were. Contrast this statistical reporting practice with that adopted by Australian police services, which provide data about female police officers in Australia to the Australian Institute of Criminology (Wilkinson and Froyland 1996). This data not only provides researchers with an accurate picture of women in policing, but the picture includes a break-down of ranks and allows for the development of evidence-based recommendations focused on advancing women police officers to higher ranks. No such data source exists within the fire services.

In summary, the data collected can be summarised to suggest that:

- By the 2003-2004 reporting period, up to 5 per cent of the Australian 'career' fire fighting labour (that is, full-time frontline fire fighters) were female with a range of less than 1 per cent in some states to nearly 5 per cent in others - but no conclusions about their level of employment can be drawn.
- Up to 30 per cent of the volunteer fire fighters were female, although this varies across the country. It is not possible to know what this participation means in terms of operational or support function deployment, or what it means in relation to frontline fire fighting or other fire fighting functions.
- Up to 30 per cent of fire fighters in land management agencies were female. Space prohibits the inclusion of detailed data in this paper but it is important that

future research includes remote-areas and rural/bush fire fighters in population definitions.

- Air Services Australia did not provide a gender breakdown for staffing statistics, preferring instead to report 'total numbers' for 'aviation fire fighter' [ACT (20) NSW (55), NT (50), Qld (167), SA (33), Tas (36), Vic (68), WA (64) and a total of 493] (Airservices Australia Annual Report 2002-2003).
- It is not known how many, if any, women in the armed forces worked as fire fighters.
- It is not known how many, if any, women worked as fire fighters in private industry.
- It is not known how many women working as casual (retained) or volunteer fire fighters go on to successfully transition into full-time fire fighting work. A subsequent study (Childs 2005c provided some data about the reasons why women fire fighters choose or reject such a career transition).

Conclusion

The study reported in this paper provided tentative statistical data about women fire fighters in Australia, as reported in 2002-2003 Annual Reports within public sector fire fighting agencies. Only data from 2002-2003 was reported here, and data from land management agencies was summarised but not detailed. The limitations of the data were acknowledged, but it was argued that these limitations reflect an historic lack of interest in diversity in the fire services, as well as poor data reporting mechanisms that need urgent review. The poor data available for public scrutiny exemplifies a lack of co-ordinated workforce planning across the industry as a whole.

The development of base line data about diversity in the fire services should be seen as a national, state/territory and agency priority. Indeed, the issue of diversity in the fire services, including the experiences of female fire fighters, is in urgent need of systematic high quality research, as well as policy activism supported by the robust leadership by CEOs of fire service, land management and air services agencies. This was clearly identified as a key issue by delegates at the first *National Women in Fire fighting Forum* held in Sydney May 12-13th 2005 (Donnelly and Millhouse 2005).

In order to count women and the contribution women make to this industry, Australian fire services agencies need better mechanisms for reporting women's participation in operational and support roles. Arguably, workforce planning requires robust and high quality data. The challenge is yet to be met of ensuring the development of a viable, diverse and capable fire-fighting workforce that effectively and actively attracts and deploys women in paid, retained and volunteer fire fighting roles through frontline and support functions. As Goward (2005) argued, at the launch of the first Australasian Women in Fire fighting Forum;

'Fire and fire management are essential to the Australian story, to our culture, to our halls of heroes. In the Australia of this new century, women must also be seen in those halls, women's achievements and contributions must be part of that story... or the story is incomplete'

One way for women to be 'seen' is through an industry commitment to the development of high quality, meaningful, and systematic statistical reporting that is used strategically to build women in to the future of this industry.

Acknowledgments

The author would like to gratefully acknowledge the assistance of remote area fire fighter Fiona Millhouse and urban fire fighter Michael Morris in preparing the final drafts of this paper.

References

- Airservices Australia Annual Report 2002-2003. Available <http://www.airservicesaustralia.com/aboutus/corpdocuments/annualreports/areport03.pdf>
- Australian Bureau of Statistics (2003) 6106.0.55.001 Information Paper: ABS Labour Market Statistics, Australia (Electronic Publication) EMBARGO: 11:30 AM (*Canberra Times*) 03/03/2003
- Australian Bureau of Statistics. Year Book Australia. Labour Feature Article – Labour force participation in Australia (Electronic Publication). Available

<http://www.abs.gov.au/Ausstats/abs@.nsf/0/30CB19068CCDE510CA256F81007761A9?Open>

Childs M, Morris M. and Ingham V. (2004). The rise and rise of clean, white-collar (fire-fighting) work, *International Journal of Disaster Prevention and Management*; Volume: 13 Issue: 5; 2004, pp. 409-414.

Childs, M. (2005a). Who gets to make our community safe? ABC Radio National, Perspective Thursday 8 September 2005. Available <http://www.abc.net.au/rn/talks/perspective/index/PerspectiveChronIdx.htm>

Childs, M. (2005b). Beyond training: new fire fighters and critical reflection, *International Journal of Disaster Prevention and Management*; Volume: 14 Issue: 4, pp.558-566.

Childs M. (2005c). Available <http://www.firegirls.info> [Sourced 9th February 2005].

Commonwealth Government. Department of the Prime Minister and Cabinet. 1995, *Productive Diversity in the Tourism Industry: Capitalising on the Language and Cultural Skills of Australians of non-English Speaking Backgrounds*, Australian Government Printing Service, Canberra.

Diversity Australia. Available <http://www.diversityaustralia.gov.au/>

Cottrell A. and Anderson-Berry L. (2002). *Women and the wet season in Northern Australia*, Canberra: Emergency Management Australia.

Dolan C. (date unknown). Women and Disasters, *The Hazard Folder*, Emergency Management Australia. Available <http://www.ema.gov.au/agd/ema/emaschools.nsf/Page/RWPDF0E98949F7B247CCA256C59001A3EE6?OpenDocument>

Donnelly C. and Millhouse F. (2005). Report on the first Australasian Women in Fire fighting Forum, Sydney May 12-13th May, Sydney.

Enarson E and Meyreles L (2004). International Perspectives on Gender and Disaster:

Differences and Possibilities. Available http://www.erc.gr/English/d&scrm/murcia-papers/session2/Enarson_Meyreles_II_Original.pdf

Goward, P (2005). Firing up women, Key note address to the National Women in Fire Fighting Forum, Holiday Inn, Bourke Rd and O'Riordan Street, Sydney Airport, Mascot, Friday 13 May 2005. http://www.hreoc.gov.au/speeches/sex_discrim/firing-up-women.html

Robinson B (2002). An introduction from the Commissioner for Fire and Emergency Planning, Fire 2002. Communications Department, London Fire and Emergency Planning Authority.

Wilkinson V, and Froyland I.D (1996). *Women in policing*, Canberra, Australian Institute of Criminology July, pp.1-6.

Author

Dr Marilyn Childs is Director of the Fire Services Research Programme at the University of Western Sydney Australia. She was the Convener of the First National Women in Fire fighting Forum held in Sydney, Australia, May 12-13 2005. Her social research includes the changing nature of fire fighting work, fire fighters, ethics and critical thinking, social history of women fire fighters, and the application of grounded theory to the contexts of fire fighting labour.

