Mapping gender-bias in the Australian health and care industry: A case study

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Abstract

Gender-bias in employment has long been a site of concern for social policy. Enduring gender patterns have seen an overrepresentation of men in high status, highly paid and executive roles, while women dominate less (monetarily) valued care work sectors internationally. While existing research has highlighted the negative impacts of this gender bias for women, as well as demonstrating the positive experiences of care work roles for men, it is unclear whether any significant change in male representation is occurring. This article contributes to contemporary understandings of gender-bias in employment by mapping gender patterns in the Australian healthcare and social assistance industry from 2006 to 2020. Drawing on Australian census and workforce statistical data we highlight the significant patterns over time and explore how these might inform developments in social policy to address gender bias in health and care occupations. We conclude by arguing that a broad collaboration of government, professional bodies, educational and industry organisations is needed to mount a sustained challenge to pervasive gender bias in health and care industries.

JEL Codes: I11, J21, J24
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Introduction

The healthcare and social assistance industry is the largest employing industry in Australia, accounting for 14.26 per cent of the country's working population in 2020 (ABS 2020). The industry includes health services (such as hospitals and primary healthcare) and various care sectors including aged and disability care. With the rollout of a National Disability Insurance Scheme coupled with an ageing population, strong growth is expected to continue through to 2050 (Deloitte Access Economics 2020). However, there is one area in which the sector has stagnated despite otherwise steady growth: the Australian healthcare and social assistance industry remains highly segregated by sex (Foley and Cooper 2021). Census data consistently shows a pattern of gender bias that classifies the industry as 'female dominated', a categorisation that requires the overrepresented gender to make up at least 70 per cent of the workforce (Pocock 1998; and Preston and Whitehouse 2004). This pattern speaks to complex social, economic and policy relations that perpetuate traditional gender roles and require nuanced social policy solutions to address them. This article seeks to inform such solutions by presenting a thorough examination of the literature and initiatives focused on men's employment in health and care occupations and mapping gender bias in the Australian sector through nationally representative data. Based on our analysis, we argue for a multi-dimensional approach to addressing gender bias in the industry, in order to improve labour market outcomes for all genders.

The female dominance of employment in this industry has been noted across Australia, Canada, the UK and Western Europe, with decades of scholarship dedicated to researching the gendered experiences of those in the sector (see, for instance, Adams 2010; Cottingham *et al*. 2015; Davies 1995; England 2010; Floge and Merril 1986; Hay *et al*. 2019; Lindsay 2005; Pascall and Lewis 2004; and Shannon *et al*. 2019).[1] Gendered segregation in health and care work has been attributed to social norms that frame certain roles as 'suitable' for particular gender identities, as well as policy shaped around the male breadwinner/female carer model in which men are presumed to be the main provider for a family and compensated accordingly (Gottfried and Reese 2008; Hay *et al*. 2019; Orloff 2002; and Pascall and Lewis 2004). Pervasive gender norms include the designation of empathy, nurturing and care-taking as feminine traits, assumed to be held by women, while rationality, leadership and decision making are framed as masculine and assumed to be aspired to and held by men (Connell 1987; Daly 2002; and Hay *et al*. 2019). In the context of the healthcare and social assistance industry, these ideals have encouraged

1 Although the authors are informed by a sociological understanding of sex and gender as both separate (though often linked) and socially constructed, the datasets drawn on in this project collect statistics based on 'sex' encouraging a problematic conflation of the two. Thus the reader will see reference to sex segregation/dominance patterns in the sector, as well as gender bias/construction in discussions of the social norms shaping employment.

men to gravitate towards managerial and 'cure' roles – such as socially and financially rewarding positions in medicine and upper management – while women are consistently overrepresented in 'care' roles, such as nursing, childcare and aged care (Hay *et al*. 2019).

Efforts to address gender bias in employment have typically focused on encouraging increased employment and improved conditions for women in traditionally masculine occupations (England 2010). However, a growing body of research investigating men's employment in traditionally feminised occupations is slowly emerging (e.g. Hardie 2015; Clow *et al*. 2014; and Moskos 2019). This expansion of the field can be seen as vital for all genders, with many scholars stating that after significant advancements for women in the last few decades the gender revolution is stalled due to men's lack of change (Friedman 2015; Hochschild 1989; and Williams 2015). We contend that a key aspect of this change is evidence-based, gender-focused social policy (Gottfried and Reese 2008) and this article is intended as a tool to facilitate the development of this with regards to the Australian healthcare and social assistance sector.

Literature Review

Literature around men's involvement in health and care work both within Australia and internationally focus on three key themes: (1) barriers and facilitators to men's employment in health and care work, (2) men's experiences of working in these sectors, and (3) the initiatives designed to promote greater male representation. Below we briefly review the key findings pertaining to each of these three themes to provide context for the data analysis and discussion to follow.

Barriers and facilitators to men's employment in health and care work

Existing research demonstrates that men face multiple barriers to employment in the healthcare and social assistance sector, often seeking these roles only after other opportunities have been unsuccessful (Isherwood *et al*. 2018; and Moskos and Isherwood 2019). There are several factors contributing to this, largely attributed to the perceptions associated with female-dominated occupations. Many roles in the sector have, and continue to be, associated with 'women's work' (Dill *et al*. 2016; King *et al*. 2013; and Litosseliti and Leadbeater 2013), requiring 'feminine' skills and attributes such as caring, listening and communication skills and a nurturing disposition (England 2005; and Pease 2011). These expectations promote scepticism around men's suitability for these roles from employers (King *et al*. 2013), prospective male workers (Bagihole and Cross 2006; Hussein *et al*. 2016; Khunou *et al*. 2012; and Loughrey 2008) and their friends and family who may question male workers' motivation, masculinity and sexuality (Khunou *et al*. 2012; Peeters 2007; Pirard *et al*. 2015; and Segev and Lander 2019). The pre-existing lack of male representation may prevent men from considering roles in the sector as options for them (Litosseliti and Leadbeater 2013; McLaughlin *et al*. 2010; and Vector Research

2009), with some existing research highlighting that men may not be aware of the types of roles available in the sector or, alternately, may be deterred by the prospect of entering a work environment in which they will be a minority (Boyd and Hewlett 2001; Chen *et al*. 2017; Hussein and Christensen 2017; Moskos 2019; and Simpson 2004).

The devaluation of female dominated occupations within the healthcare and social assistance industry, and resulting perceptions of low pay and status for these roles, is a further barrier for men's employment in the sector (Chen *et al*. 2017; Daly 2002; Dill *et al*. 2016; Hussein *et al*. 2016; Khunou *et al*. 2012; and Peeters 2007). This can serve as a deterrent for prospective male workers with familial and financial responsibilities (Cheng *et al*. 2018; and Moskos and Isherwood 2019), as well as those who seek advancement and recognition in their career trajectories (Bagilhole and Cross 2006; Hussein and Christensen 2017; and Litosseliti and Leadbeater 2013). Research demonstrates that when men do occupy care worker roles, this is often as a 'last resort' (King *et al*. 2013) with an overrepresentation of men from minority backgrounds who tend to be disadvantaged in the broader labour market (Dill *et al*. 2016; Hussein and Christensen 2017; and Wingfield 2009).

Despite these barriers, some men do choose to work within the healthcare and social assistance industry, citing several key reasons. Firstly, the sector has seen increased work opportunities (Hussein *et al*. 2016; and Moskos and Isherwood 2019). This is a noteworthy attribute particularly in the context of declining opportunities in typically male-dominated industries such as manufacturing (Bagilhole and Cross 2006; Dill *et al*. 2016; and Isherwood *et al*. 2018). Awareness of the healthcare and social assistance sector – particularly through contact with men working in the industry – positively influences prospective male workers to enter the sector (Blackley *et al*. 2019; Boyd and Hewlett 2001; Brody 2015; and Litosseliti and Leadbeater 2013). Health and care work is also appealing to male workers who seek employment that is people-focused, socially important and provides an opportunity to have a positive impact on people's lives (Blackley *et al*. 2019; Boyd and Hewlett 2001; Cameron 2001; Chen *et al*. 2017; Fiore and Facchini 2013; Moskos and Isherwood 2019; Pirard *et al*. 2015; and Simpson 2004). Flexible work facilitating work-life balance is a further factor encouraging men to seek employment in the industry (Asakura and Watanabe 2011; Chen *et al*. 2017; and Isherwood *et al*. 2018). Finally, for some men the female dominance of the sector was considered to be advantageous as their minority status was perceived to be a facilitator of career development and advancement (Bagilhole and Cross 2006; and Blackley *et al*. 2019).

Men's experiences of working in health and care work

Once men have elected to work in the healthcare and social assistance sector, they report both positive and negative experiences which are often shaped along gendered lines. For instance, men are more likely to gravitate to typically masculine roles, such as technical, scientific and managerial positions (Hussein *et al*. 2016; McLean 2003; and Murray 1996) and are also more likely to be offered opportunities for development and

training (Pirard *et al*. 2015; and Simpson 2004) and advance more rapidly in their career (Litosseliti and Leadbeater 2013). This pattern has seen an overrepresentation of male nurses in emergency departments, intensive care, surgery and psychiatry (Cheng *et al*. 2018; Evans 1997; Simpson 2004; and Snyder and Green 2008), while the social care sector sees men more likely to gravitate towards mental health, drug and alcohol, HIV and intellectual disability services (Baines *et al*. 2014; and McLean 2003). These specialties are considered to require more autonomy, control, technical skills and decision-making from workers, and are likely to be higher-status and more highly paid than other roles in the industry (Evans 1997; and Snyder and Green 2008). Such traits position the work as being more in line with traditional gendered expectations of appropriate roles for male workers (Brown 1998; Cheng *et al*. 2018; and Snyder and Green 2008). Male workers also describe experiencing more relaxed expectations in the workplace than their female co-workers (Cottingham *et al*. 2015; Moskos and Isherwood 2019; Pirard *et al*. 2015; and Simpson 2004), as well as feeling that they were valued, welcomed and more overtly appreciated by clients and colleagues (Cheng *et al*. 2018; Evans 1997; Moskos 2019; Simpson 2004; and Tunte 2007). Finally, men working in health and care roles describe job satisfaction from working with clients as a key highlight of working in the industry (Blackley *et al*. 2019; Boyd and Hewlett 2001; Pirard *et al*. 2015; and Simpson 2004).

Conversely, men working in the health and social assistance industry also describe negative experiences of working in female-dominated environments. As mentioned in the previous section, male care workers often experience negative reactions to their choice of occupation from clients, co-workers, friends and family (Isherwood *et al*. 2018; King *et al*. 2013; and Moskos and Isherwood 2019). Men working in child-centric roles (such as childcare, speech and language therapy) reported negative stereotypes around their sexuality, motivations for doing the work and the potential risk of sexual abuse for clients (Boyd and Hewlett 2001; Brody 2015; Cameron 2001; Cameron 2006; Isherwood *et al*. 2018; King *et al*. 2013; Moskos 2019; Moskos and Isherwood 2019; Murray 1996; Pease 2011; and Tunte 2007). Indeed this latter issue has led to some workplaces introducing formal or informal practices to prevent male workers from providing personal care or being alone with female and child clients (Blackley *et al*. 2019; Cameron 2001; Isherwood *et al*. 2018; and Moskos and Isherwood 2019), a measure that was welcomed by some men but seen to further increase negative stigma by others (Holyoake 2002; and Murray 1996). Some male workers find it challenging to feel a sense of belonging in female-dominated workplaces, and isolation and exclusion were cited as common issues (Blackley *et al*. 2019; Boyd and Hewlett 2001; Chen *et al*. 2017; Cheng *et al*. 2018; Moskos 2019; Pirard *et al*. 2015; and Segev and Lander 2019). Finally, although male workers may experience career advancement or higher pay in the industry, this is still often less lucrative than that which is available in alternative male-dominated industries (Bagihole and Cross 2006; and Dill *et al*. 2016). These benefits were also less likely to be experienced by men from minority backgrounds or those who were working in areas with flatter organisation structures and a proclivity for part time working hours such as childcare and aged care (Cameron 2001; Hussein *et al*. 2016; Isherwood *et al*. 2018; McLean 2003; Moskos and Isherwood 2019; Pease 2011; and Tunte 2007).

Male workers in the sector manage some of these challenges by gravitating towards the jobs and tasks in the sector that are most aligned with traditionally masculine traits (Baines *et al*. 2014; Cheng *et al*. 2018; Evans 1997; McDonald 2013; and McLean 2003), reframing their job or using deflective humour when describing it to others (Baines *et al*. 2014; Blackley *et al*. 2019, Hrzenjak 2013; Moskos and Isherwood 2019; Pease 2011; and Simpson 2004), or adjusting their gender identity to reflect a 'softer' masculinity (Baines *et al*. 2014; Hrzenjak 2013; and Loughrey 2008).

Policies and initiatives to promote male representation

In order to encourage greater male representation in female-dominated industries within the healthcare and social assistance sector, research from Australia and overseas has recommended the adoption of specific policies and initiatives. These recommendations have focused on four main areas: promotion of occupations in the sector (including the benefits of such employment), stigma reduction, increased support provision for potential male workers in training and improved workplace conditions (Blackley *et al*. 2019; Boyd and Hewlett 2001; Isherwood *et al*. 2018; Litosseliti and Leadbeater 2013; and Moskos 2019).

Recommendations for promotional activities have emphasised the need to highlight the roles, activities and specialisations within the sector that may appeal to male workers (Moskos and Isherwood 2019; Snyder and Green 2008; and Vector Research 2009), as well as demonstrating the importance of male representation to employers (Moskos 2019; Peeters 2007; and Vector Research 2009). The need to actively challenge the assumption that roles in the sector are 'women's work' has been highlighted in several studies (King *et al*. 2013; Moskos and Isherwood 2019; and Peeters *et al*. 2015), with suggested strategies including ensuring that direct and indirect gender discrimination is effectively addressed and men are purposefully included in recruitment, training, orientation and workplace activities (Carte and Williams 2017; McLaughlin *et al*. 2010; Peeters 2007; and Segev and Lander 2019). High attrition rates of male students and workers in the sector have led to recommendations for more support for these cohorts (Brody 2015; Peeters 2007; and Peeters *et al*. 2015), including peer support, mentoring opportunities with male workers, stress management strategies and financial assistance for educational opportunities (Blackley *et al*. 2019; Boyd and Hewlett 2001; Khunou *et al*. 2012; and Segev and Lander 2019). Finally the improvement of working conditions such as pay rates, hours, job stability and career opportunities may encourage more men to enter and stay in the sector (Cheng *et al*. 2018; King *et al*. 2013; Moskos and Isherwood 2019; and Peeters 2007), with the use of quotas and targets for male representation also suggested as a way to ensure workplaces are actively trying to address gender bias (Moskos 2019).

Based upon these recommendations, various initiatives have been employed to address the under-representation of men in the healthcare and social assistance industry worldwide. Some success has been seen in the attraction and retention of male students in nursing and care training courses in Europe and the UK. For instance,

European promotional campaigns, provision of student bursaries and incorporation of introductory or training modules that are designed to appeal to masculine interests and/or offer men-only classes were found to increase male uptake of childcare courses and reduce attrition (Peeters 2007, and Peeters *et al*. 2015). In addition, UK school programs developed to promote job opportunities and challenge gendered assumptions of nursing and allied health professions can positively impact the perceptions of male students (Research Works Limited 2020). Finally, open day and recruitment campaigns that use male student and professional role models have been shown to increase the proportion of men enrolling in Scottish nurse training programs (Whitford *et al*. 2018). Whilst some inroads have been made, there is little definitive evidence to suggest that these implemented approaches have had a significant impact on gender bias in the healthcare and social assistance workforce overseas. For example, in Europe targets to increase male representation to 20 per cent of the childcare sector have not been met. Despite active promotion, recruitment and workplace support, there has been limited impact with recent data showing male representation sits around 2 per cent in the UK (Department for Education 2017) and 9 per cent in Norway (Wright and Brownhill 2019).

Within Australia, there has been very limited attention paid to strategies to increase male representation and retention in female-dominated occupations in the healthcare and social assistance industry. Strategies to date have included a mentoring program for men who study and work in early childcare education to promote the building of social and professional networks (Mills-Bayne 2013). Also within the nursing field, the Australian College of Nursing has developed promotional material aiming to encourage more males to enter the nursing profession (ACN 2022).

The Workforce Gender Equality Agency (WGEA) has advocated for industries and organisations to develop gender equality strategies with targeted initiatives to improve workforce diversity (WGEA 2022). However, within Australia the focus of strategies to improve gender equality has typically been on the attraction of female workers to male-dominated industries (Australian Government 2022, WGEA 2022). Thus the existing literature considering ways in which male representation in female-dominated occupations can be enhanced is limited, highlighting a significant gap in understandings of efforts to address gender bias in the Australian healthcare and social assistance workforce. This paper moves towards addressing this gap by mapping gender bias in the sector using nationally representative data, offering a foundation for future efforts to better promote men's representation in the industry.

Methods

In order to address the question of whether and where gender bias is evident in the Australian healthcare and social assistance sector, this project utilised statistical data from a selection of nationally representative datasets to map the sex-segregation of the sector. These Australian Bureau of Statistics (ABS) datasets included:

- the Australian Census (2006, 2011, 2016),
- Characteristics of Employment Survey (2014-2020), and
- Barriers and Incentives to Labour Force Participation, Retirement and Retirement Intentions (2018-19).

All datasets are uniform in their classification of the variables of interest to this paper (e.g. occupation and industry). Our initial exploration focused on the variables of sex and industry (healthcare and social assistance). Cross-sectional data was obtained using the Australian Bureau of Statistics' TableBuilder and CensusTableBuilder to generate descriptive statistics on the gendered dimensions of employment (including by occupation, full time status, income, age and job satisfaction) for each year of available data. Data was then compared across years to highlight trends and key changes over time. We consider this descriptive mapping of the sector to be a key aspect of identifying the sites and magnitude of gender segregation in the sector in order to inform future policy and practice initiatives.

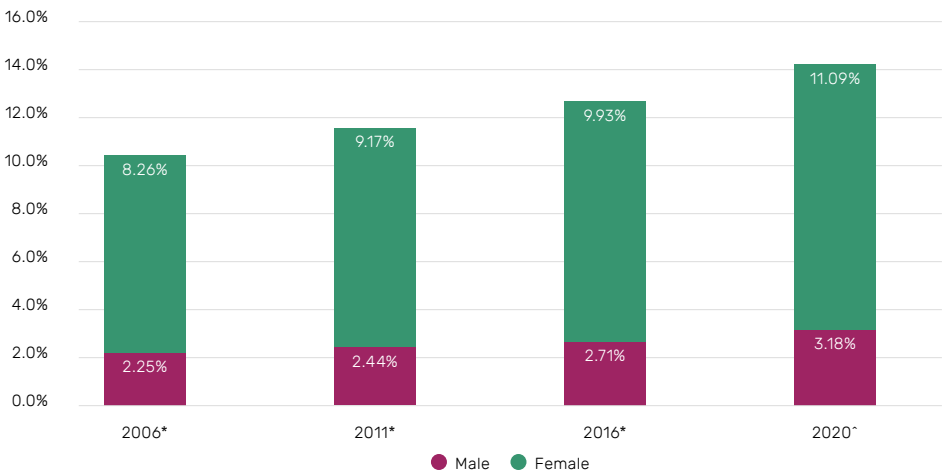
This approach, however, has some limitations. One of these is that due to the use of multiple datasets, which differ in scope and sample size, it is difficult to definitively track trends across the full 2006-2020 period. Despite this, we have included these datasets to provide the most up-to-date snapshot of the healthcare and social assistance sector in lieu of more recent census data, and indicate the source of presented figures in the tables and figures so that this is clear to the reader. A further limitation of using ABS data in TableBuilder is that the ABS uses a random data adjustment technique to ensure the protection of confidential data. This process of perturbation is unlikely to have a significant impact on the underlying pattern of statistics, but may result in slight discrepancies in figures presented. The results of this analysis are presented below.

Results

The Australian healthcare and social assistance sector

ABS data shows that the healthcare and social assistance industry has consistently been the largest Australian industry category for the last fifteen years. As Figure 1 demonstrates, the sector has seen steady growth over time, now accounting for an estimated 14.27 per cent of the Australian workforce.

Figure 1: Proportion of the Australian workforce employed in the health care and social assistance sector (2006, 2011, 2016 and 2020, per cent)



Data sources:
*ABS Census TableBuilder, 2016,
^ABS Characteristics of Employment 2014 to 2020 Dataset, 2020

Throughout this period of growth the gender split in the sector remains steady, with census data showing that men made up 21.38 per cent of the healthcare and social assistance workforce in 2006, increasing only slightly to 21.46 per cent by 2016.

Key sites of overrepresentation

A closer examination of sex segregation in the sector (see Table 1 below) highlights areas where this bias is more pronounced.

Table 1: Industry comparison of male and female workers (2016, per cent)

Health Care/ Social Assistance Industry	(Tier 4 detail)	Male (%)	Female (%)
Overall		21.46	78.54
Hospitals		22.04	77.96
Medical and Other Health Care Services	**Medical Services**		
	• Medical Services, nfd*	22.63	77.21
	• General Practice Medical Services	27.16	72.84
	• Specialist Medical Services	27.24	72.84
	• Medical and Other Healthcare Services, nfd*	23.01	77.01
	Pathology and Diagnostic Imaging Services	24.23	75.76
	Allied Health		
	• Allied Health Services, nfd*	19.85	80.01
	• Dental Services	20.45	79.55
	• Optometry and Optical Dispensing	29.68	70.31
	• Physiotherapy Services	29.92	70.08
	• Chiropractic and Osteopathic Services	32.04	67.95
	• Other Allied Health Services	20.55	79.45
	Other Health Care Services		
	• Other Healthcare Services, nfd*	27.27	72.73
	• Ambulance Services	56.42	43.56
	• Other Healthcare Services, necˆ	20.15	79.89
Residential Care Services		17.06	82.94
Social Assistance Services	• Social Assistance Services, nfd*	24.41	75.60
	• Child Care Services	6.39	93.62
	• Other Social Assistance Services	26.10	73.90
Health Care and Social Assistance, nfd*		20.37	79.64

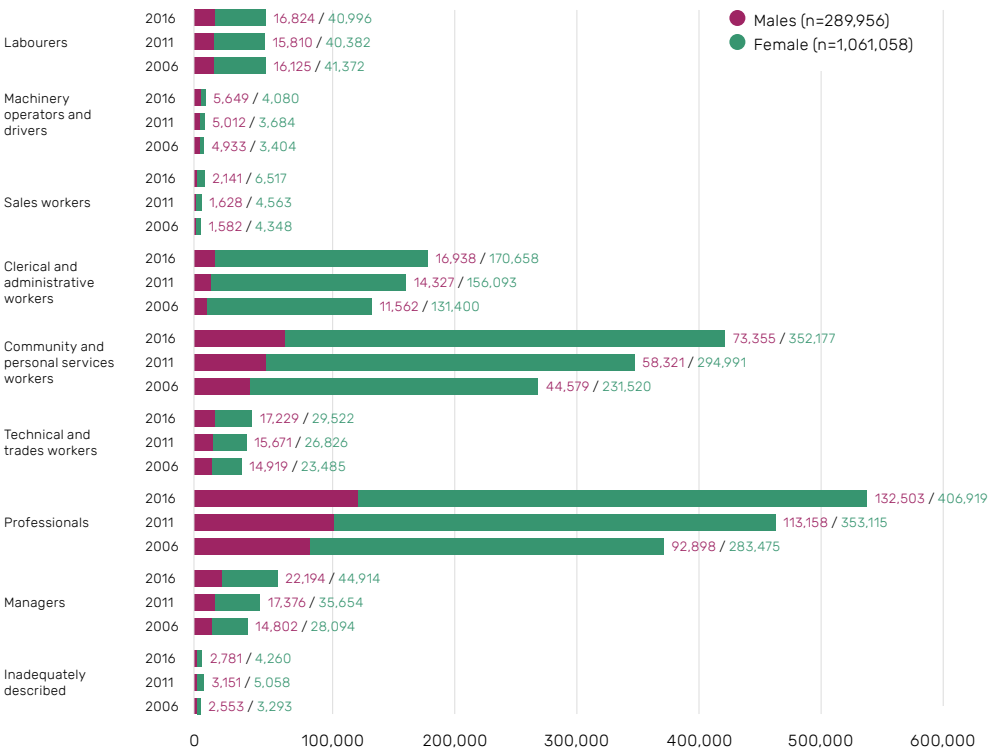
Notes: *Not further defined, ˆNot elsewhere classified.
Data source: ABS Census TableBuilder, 2016

In 2016 most areas of employment in the healthcare and social assistance sector conformed to a gender split that favoured female employment, with only two of the twenty employment areas in Table 1 not being female-dominated (i.e. with female representation of less than 70 per cent). Only one of these areas, Ambulance Services, had a higher representation of male than female employees in 2016 (56.42 per cent male), though this has decreased from the 2006 figure of 65.99 per cent. Findings indicate that female dominance in the healthcare and social assistance industry has increased since 2006 when seven of the employment areas – general practice medical services, specialist medical services, allied health services nfd, optometry and optical dispensing, chiropractic and osteopathic services, ambulance services, and social assistance services nfd – reported higher male representation.

Childcare services consistently sees the most significant sex-segregation, with males making up only 6.39 per cent of the workforce in 2016 – a slight increase from 5.23 per cent in 2006. In lieu of more recent census data, the characteristics of employment dataset shows male employment in childcare peaking at 8.80 per cent in 2019, before falling to 5.63 per cent in 2020. Residential care had the second largest divide in sex representation, however male employment has increased over time (from 13.92 per cent in 2006 to 17.06 per cent in 2016). The characteristics of employment dataset shows that male employment in residential care peaked in 2018 at 19.22 per cent, subsequently declining to 14.87 per cent in 2020.

Examination of the gender bias in particular occupations offers further detail around the segregation of employment in the healthcare and social assistance industry. As can be seen in Figure 2, female employees have consistently outnumbered males in every occupational category except machinery operators and drivers since 2006.

Figure 2: Occupational comparison of male and female workers in the healthcare and social assistance industry (2006, 2011, 2016)



Data source: ABS Census TableBuilder, 2006, 2011, 2016

Proportionally, the male workforce is more likely to gravitate towards professional roles (45.70 per cent in 2016 vs 38.35 per cent of women), managerial positions (7.65 per cent vs 4.23 per cent), technicians and trades (5.94 per cent vs 2.78 per cent), labouring (5.81 per cent vs 3.86 per cent), and machinery operation (1.95 per cent vs .38 per cent). In contrast, women are more likely to be employed in community and personal service roles (33.19 per cent vs 25.30 per cent of men), and clerical and administrative occupations (16.08 per cent vs 5.84 per cent).

A closer examination of the two largest occupational categories in the healthcare and social assistance industry – 'professionals' and 'community and personal service workers' – further shows the extent of sex bias at a more granulated level. As can be seen in Table 2, across both occupational categories there are only ten occupations in which males make up the majority of the workforce, and only one of these (surgeon) is classified as male-dominated. The remaining nine male sub-occupations have significantly lower rates of male representation when compared to the top sub-occupations for females. In comparison, female employees make up the majority in 39 sub-occupations, and 32 of these are considered female-dominated. Table 2 highlights the top sub-occupations for females which are predominantly comprised of allied health, nursing and care worker roles. This analysis clearly shows that (with the exception of surgeon) gender bias in sub-occupations in which females make up the majority is significantly more pronounced than in male-majority sub-occupations.

Table 2: Top sub-occupations for male and female representation in professional and community and personal service occupations (2016, per cent)

Top sub-occupations for male representation	Top sub-occupations for female representation
Surgeons (82.00% male)*	Dental Assistants (98.24% female)*
Anaesthetists (67.22%)	Midwives (98.24%)*
Ambulance Officers and Paramedics (62.75%)	Early Childhood Teachers (97.72%)*
Dental Practitioners (58.07%)	Child Carers (95.28%)*
Medical Practitioners nfd^ (57.43)	Nutrition Professionals (94.57%)*
Specialist Physicians (57.36%)	Audiologists & Speech Pathologists/Therapists (92.34%)*
Chiropractors and Osteopaths (56.24%)	Occupational Therapists (92.19%)*
Psychiatrists (55.83%)	Diversional Therapists (91.86%)*
Other Medical Practitioners (54.47%)	Midwifery & Nursing Professionals nfd^ (90.91%)*
General Practitioners and Resident Medial Officers (53.90%)	Nurse Educators & Researchers (90.83%)*
	Education Aides (90.60%)*
	Enrolled and Mothercraft Nurses (90.54%)*
	Registered Nurses (89.31%)*
	Nurse Managers (86.84%)*
	Social Workers (84.69%)*
	Heath Diagnostic and Promotion Professionals (82.46%)*
	Social and Welfare Professionals nfd^ (81.20%)*
	Aged and Disabled Carers (80.54%)*

Notes: *Denotes a sub-occupation considered to be gender-dominated (i.e. if >70% of workers are from one particular gender), ^ Not further defined.
Data source: ABS Census TableBuilder, 2016

Worker demographics and experiences

An exploration of the demographics of workers in the healthcare and social assistance sector highlight some key points of difference between male and female workers. As can be seen in Table 3, while the median age for both male and female workers in the industry sits around 44 years of age, differences in age distribution see more females in the youngest age group (below 25 years), and more males in the oldest age group (over 64 years) (ABS 2016). Male workers reported higher levels of education than females, and were more likely to have completed a postgraduate degree (15.00 per cent men to 7.59 per cent of women) or bachelor degree (34.94 per cent men to 30.02 per cent women), while women were more likely to report diploma and certificate level qualifications (36.66 per cent women to 27.48 per cent of men) (ABS 2016).

Table 3: Socio-demographic comparison of male and female workers (2016, per cent)

	Males (n=289,956)	Females (n=1,061,058)
Age (years)		
<25	7.17	9.20
25-34	22.22	22.52
35-44	22.90	21.39
45-54	22.46	24.19
55-64	18.98	18.98
>64	6.46	3.73
Median age	44	43
Post-school qualifications		
Postgraduate Degree level	15.00	7.59
Graduate Diploma/Certificate level	4.15	4.79
Bachelor Degree level	34.94	30.02
Advanced Diploma and Diploma level	11.66	16.69
Certificate level	15.82	19.97
Inadequately described	1.07	0.89
Level of education not stated	1.55	2.08
Not applicable	15.81	17.97
Form of employment		
Full time	67.81	44.32
Part time	28.09	49.58
Employed, away from work	4.10	6.09
Preferred number of extra weekly hours		
0 hours	85.88	85.35
Less than 10	6.40	6.62
10-19 hours	5.45	6.15
20-29 hours	2.06	1.12
30 hours or more	0.00	0.40

Table 3 continued

	Males (n=289,956)	Females (n=1,061,058)
Weekly Income		
Less than $150	1.19	1.42
$150-299	2.06	3.23
$300-$399	2.43	4.38
$400-$499	3.43	6.34
$500-$649	5.70	11.71
$650-$799	7.73	13.96
$800-$999	10.85	14.76
$1,000-$1,249	12.97	14.65
$1,250-$1,499	9.72	9.48
$1,500-$1,749	9.17	7.46
$1,750-$1,999	6.92	4.24
$2,000-$2,999	11.85	4.64
$3,000 or more	14.60	2.18
Not stated	1.09	1.24
Median income	$1,250-$1,499	$800-$999

Data source: ABS Census TableBuilder, 2016

The data also shows pertinent differences in the working experiences of male and female employees in the sector. Male workers in the healthcare and social assistance industry were much more likely to be employed full time (67.81 per cent to 44.32 per cent of women) and had a higher median weekly income ($1,250-$1,499 compared with $800-$999 for female workers) (ABS 2016). They were also more likely to earn over $1,500 per week, with 42.54 per cent of male workers reporting this level of income compared with 18.52 per cent of female workers (ABS 2016). Tables 3 and 4 highlight some points of similarity, for instance, male and female workers reported similarly high levels of job satisfaction (with 87.50 per cent of men and 91.13 per cent of women being satisfied or very satisfied with their job) (ABS 2019). In terms of continuity, male workers were more likely to have been employed for 10 or more years by their current employer (30.94 per cent vs 24.83 per cent) but both sexes were highly likely to report an expectation that they would remain with the same employer in the next year (>90 per cent for both) (ABS 2020). A similar proportion (~14 per cent) of male and female workers reported a desire to increase their hours of employment (ABS 2020).

Table 4: Recruitment and retention - comparison of male and female workers (2019, per cent)

	Males^ (n=384)	Females^ (n=1,345)
Continuous duration with current employer		
< 12 months	17.98	19.23
1-2 years	7.47	10.62
2-3 years	11.22	9.90
3-5 years	13.69	14.98
5-10 years	18.42	20.19
10-20 years	17.80	16.54
> 20 years	13.14	8.29
Median	3-5 years	3-5 years
Expected future duration with current employer		
With current employer in 12 months	91.67	92.50
Not with current employer in 12 months	8.33	7.68
	Males# (n=219)	Females# (n=895)
Job satisfaction		
Very satisfied	51.98	48.14
Satisfied	35.52	42.99
Neither satisfied or dissatisfied	7.09	5.50
Dissatisfied	4.37	3.01
Very dissatisfied	0.77*	0.94*

Notes:
*Denotes figures with a relative standard error that is high enough to render them unreliable by ABS standards.
Data sources:
^Characteristics of Employment Survey, 2014-2019 (Figures from August 2019),
#Barriers and Incentives to Labour Force Participation and Retirement and Retirement Intentions, 2018-19

Discussion

The data presented above largely supports long-held understandings of gendered employment – namely that men are most likely to be highly paid, working full time and found in traditionally masculine 'cure' and professional roles. Progress in challenging gender segregation in the Australian healthcare and social assistance industry has been negligible, with little change in proportional representation in the last fifteen years. The magnitude of bias is also noteworthy, with female employees not only dominating in more occupations than males, but also more significantly. Despite men's dominance in surgery and overrepresentation in some masculine roles only one of these occupations was classified as male-dominated. This indicates that while women are increasingly occupying traditionally masculine roles, men are unlikely to occupy traditionally feminine

roles. In short, men are not making any significant inroads into female-dominated occupations in the healthcare and social assistance industry.

We contend that such mapping exercises as we have undertaken are of value to scholars, policy makers and others seeking to address gender bias in employment. What these statistics show is that female domination in the healthcare and social assistance sector remains an issue and seem largely impenetrable by existing policy initiatives. Efforts undertaken in Australia to date to improve male representation in the industry have been limited with little long-term effect. For policy makers, this data serves as a starting point – from here, initiatives may be developed and measured against the baseline data presented above to discern whether any significant changes have been wrought.

This, then, begs the question of how social policy efforts might seek to address gender bias in the Australian healthcare and social assistance sector. Given the significant and long-standing nature of sex-segregation in the industry, we propose a multidimensional approach to the promotion of men's employment. This would include a collaborative effort from government, professional bodies, educational and industry organisations, guided by a gender-informed social policy specifically tailored around the improvement of men's recruitment and retention in the sector. Key initiatives might include the introduction of quotas for male employment, increased expenditure on mentor programs, retraining programs for employees from traditionally masculine industries in decline and improvements to workplace conditions such as funding for additional staff and improved leave and remuneration. In addition, a promotional effort to highlight the possibilities of working in the sector for men might be useful, although we would caution that these should resist reinscribing gender norms through portraying these occupations as amenable to traditionally masculine ideals and instead normalise new forms of masculinity in which care, empathy and nurturing are not traits restricted to women. This is an endeavour that requires socio-cultural changes on multiple levels, however we contend that gender-informed social policy that meaningfully addresses the issue of men's underrepresentation in the sector is an important step towards this much needed social transformation.

A small but noteworthy finding we uncovered is the significant dip in male representation in the most segregated occupations – childcare and residential care – in the 2019-2020 period. Recent research has suggested that the COVID-19 pandemic has led to a worsening of gender equalities in the labour market both within Australia and internationally (Foley and Cooper 2021). In Australia, the pandemic has had a greater adverse effect on the employment of females than males including factors such as job loss, working hours and pay (Hill and Cooper 2021). Furthermore, workers in frontline roles in feminised occupations such as nursing and care work have commonly experienced an intensification of their workload, increased hours, burnout and psychological distress due to the pressures of responding to the pandemic (ABS 2021; Dobson *et al*. 2021; and Lee *et al*. 2022). The healthcare and social assistance industry has experienced strong employment growth but also greater job mobility - the movement of workers both within and from a sector - since the start of the pandemic (ABS 2021; Black and Chow 2022; and

Rapeport and Ravindran 2021); however the particular impacts of the pandemic on the employment of male and female workers in the industry has not been identified. Future research efforts might examine whether broader contextual factors (such as COVID-19) play a role in the increased sex segregation our study observed within some occupations in the healthcare and social assistance industry, or if there are other influential factors driving this regression.

Conclusion

As the findings discussed in this paper indicate, the Australian healthcare and social assistance sector is a key site in which gender bias in employment is stark. The industry is overwhelmingly female-dominated, with enduring patterns of sex-segregation indicating that this is unlikely to change without intentional social policy initiatives directed at improving men's representation. Here we are mindful of Christine Williams' (2015, p.393) sentiment that 'retaining men should not come at the cost of losing women', nor should efforts to pursue equity in conditions and opportunities be sidelined to foreground men's employment. However, the healthcare and social assistance sector in Australia, with its current and (predicted) growth represents a key opportunity to increase men's representation in a feminised industry without such gains impeding the employment opportunities of women. We argue that challenging gender bias in female-dominated industries is a much needed step towards the gender revolution, and one that requires the development of supportive social policy to sustain it. To this end our exploration has demonstrated that further research is needed to evaluate the effectiveness of current initiatives operating in Australia and abroad in attracting and retaining male representation in the sector, and also more resources dedicated to the pursuit of effective initiatives for gendered change.

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