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'What did I get myself into?' Indigenous women and mining employment in Australia

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Keywords: Indigenous employment Gender Australia Mining Social performance	The prevailing view in the literature is that women are more adversely impacted by mining than men, with a major contributing factor being that women are largely excluded from accessing the benefits of employment at large scale operations. Despite industry efforts to increase female participation over the past decade or so, the mining industry remains male dominated. Very few studies provide any substantial employment data on Indigenous women or detail their experience working at large mines. This article presents an overview of recent developments for Indigenous women employed in the Australian resource industry, and their experiences, drawing on research conducted at four large mines in Western Australia. The authors argue that the industry is not adequately recognising or responding to gender-based employment impacts for Indigenous groups in Australia and offer insight for future policy and practice.		

1. Introduction

My first day on site, I walked in...wasn't expecting a male-dominated field. I was the only female in the room. I looked around, and I was blown away. At first, I felt Oh, what am I doing? What did I get myself into? (Administration role, Argyle Diamond Mine, 9/4/20].

Despite women having always been involved in mining activities, the industry continues to be largely conceptualised as a male domain. The literature indicates that women are more adversely impacted by mining than men, largely due to women being excluded from negotiations and access to benefits such as employment (Connell & Howitt 1991; Gibson and Kemp 2008; Lahiri- Dutt, 2019; Pugliese 2021). For example, research in Papua New Guinea (Macintyre, 2003) and New Caledonia (Horowitz, 2017) has demonstrated the exclusion of women in agreement making processes has been justified by local men and mining company representatives as adhering to local 'Custom'. This allows for women to be excluded while the company positions themselves as culturally sensitive (Horowitz, 2017). NGOs have also argued that the extractive industries often create or exacerbate gender inequalities and entrenched gender bias prevent women's participation (Oxfam International 2017). However, this is not always the case. For example, O'Faircheallaigh, 2013 demonstrates the central role Indigenous women have in negotiating land use agreements with mining companies in Canada and Australia. Many Indigenous women have chaired or co-chaired the trusts created by these agreements and are members of agreement implementation committees. A recent assessment of the world's 40 largest mining companies by the Responsible Mining Foundation concluded that the mining industry performs very poorly on gender - in fact it is one of the lowest performing areas of Environmental Social and Governance factors (RMF 2022). Their report found very limited evidence of companies assessing the impacts of mining on women and very limited evidence of measures to protect women from intimidation, sexual harassment, and gender-based violence in the workplace or in mine affected communities. While there are pockets of good practice and ad hoc efforts to address pre-existing structural barriers, decades of research calls into question the industry's commitment to confronting gender issues and by extension, the industry's commitment to addressing the United Nations Sustainable Development Goal (SDG) to 'achieve gender equality and empower all women and girls' (SDG 5).

These issues are becoming more of a public narrative. At the time of writing, the Western Australian Parliamentary Inquiry into sexual harassment against women in the Fly-in, Fly-out (FIFO) mining industry was underway. Major mining companies BHP, Rio Tinto, and Fortescue

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Metals Group have made submissions acknowledging the poor treatment of women at their operations. For Indigenous women more specifically, the recent Broderick Report commissioned by Rio Tinto also identified that Indigenous women experience both sexism and racism (Broderick, 2021). As one former Rio Tinto Indigenous female employee recently put it: "Sometimes people call me a double diversity hire. In my experience, it just means I am twice as likely as another to be harassed" (Bergmann 2022).

An active and growing arena of applied social research is how women exercise agency in mining contexts, which includes women's roles in conflict, protest, and resistance movements. For Indigenous women, there are now several advocacy groups. For example, Indigenous women in Canada have mobilised to create groups such as the First Nations Women Advocating Responsible Mining (FNWARM,) Pauktuutit (Inuit Women of Canada), and the Native Women's Association of Canada to advocate addressing a wide range of social issues impacting women because of resource extraction. Further, several women in mining associations have emerged around the world, for example, the Indigenous Women in Mining and Resources Australia (IWIMRA), cofounded in 2017 by Florence Drummond, one of the authors of this paper. The stated purpose of IWIMRA is to: 'Create a stronger connection amongst Indigenous women in Australia's Mining and Resource sector, and to raise the profile of Aboriginal and Torres Strait Islander Women in Mining and Resources' (IWIMRA 2022).

The proportion of women in the large-scale mining workforce is relatively small. Globally, women comprise less than 15 per cent of the large-scale mining workforce (IGF 2022). This is a generalised figure that doesn't capture the variation across countries, companies, and commodities. Increasing female participation in the Australian mining workforce has been high on the agenda of the mining industry for at least 15 years. A concurrent agenda over this period has been to increase the participation of Indigenous peoples in the mining workforce, yet very little research has focused on Indigenous women's experience working at large scale mines. Much of the global literature is devoted to women's engagement in small scale or artisanal mining where women represent a higher percentage of the total workforce. When mining moves to large scale, the numbers of women tend to fall (see Lahiri-Dutt and Macintyre, 2006; Kemp and Owen, 2019; Khan, 2013; Pugliese 2021).

Research from large-scale mines in Papua New Guinea indicate that women experience sexual harassment, male backlash, and lack of childcare (Bonnell 1999; Macintyre, 2003). More recent research from Canada indicates similar issues experienced by Indigenous women. A study of the impacts of resource extraction on Inuit women found that Inuit women represented 6.5 per cent of the permanent workforce at Meadowbank mine and 35.1 per cent of the temporary workforce with most occupying entry-level positions such as cleaners and kitchen staff (Nightingale et al., 2017). The authors argued that these positions low in the workplace hierarchy placed them at greater risk of sexual harassment and assault. The three most common reasons for leaving the workforce given by former Inuit women workers were: a temporary contract; sexual harassment and assault; and lack of day-care for children. Inuit women reported one of the key benefits of their employment at the mine was to 'gain financial independence from their partner and/or extended family for greater autonomy' (Nightingale et al., 2017 p.375). Some of these women become the primary income earner for their family, replacing the role traditionally held by men through hunting and fishing. This shift in roles was reported to have contributed to relationship tensions, and sometimes violence. Some women also reported feeling stressed about not knowing what was happening at home while they were at work, worrying over how their partner was taking care of the household, spending money, and caring for children. Two thirds of women raised concerns over how employment reduced the amount of time they had to fulfil their cultural obligations to family networks and practice or teach cultural skills.

and racialized women's experiences working in Yukon and Northern British Columbia mine camps (LAWS 2021). The study reported that women are 'undervalued, and have limited opportunity for advancement, scholarship and training' (LAWS 2021 p. iii). Despite experiencing high levels of harassment, discrimination, and violence, women in this study either felt unsafe reporting incidents or there was no clear or available mechanism to do so. Another study in the Yellowknife region in Canada found that women who worked in housekeeping and other lower paid positions reported the most severe experiences of gendered discrimination and violence (Hall, 2017). Likewise, Indigenous women working at Voisey's Bay mine have reported being perceived by co-workers as 'token hires' and experienced both racism and sexism (Cox and Mills, 2015).

In Australia, the available research indicates that Indigenous women face similar challenges to those identified in Canada (Parmenter 2011). Some of these issues are not unique to Indigenous women but may be compounded or differently experiences for Indigenous women, such as working in a male dominated environment and caring for children. For example, Indigenous women often bear children at a younger age than non-Indigenous women and are often responsible for a greater number of dependents or other extended family members. In addition, gender safety in the mining industry may differ when Indigenous society can be homosocial (Cowlishaw 1982; Merlan, 1992). At FIFO mine sites, jealousy felt by partners has been a challenge identified for both Indigenous women in Australia (Parmenter 2011; Parmenter and Barnes 2021) and Canada (Nightingale et al., 2017). At FIFO mines, workers are required to stay overnight during their roster. Some Indigenous women reported that their partners did not want them to work in a male dominated environment due to concerns about infidelity. Partner jealousy is also an issue for Indigenous men employed in FIFO operations (Parmenter and Barnes 2021) and among the non- Indigenous workforce (see Lahiri-Dutt, 2019; McPhedran and De Leo, 2014).

This article presents an overview of recent developments for Indigenous women working in the Australian mining industry. The authors argue that despite some progress increasing the representation of Indigenous women, the industry has not yet adopted the intersectional approach required to adequately respond to the needs of this group. Intersectionality refers to the ways in which multiple forms of advantage or disadvantage intersect to create different modes of privilege or discrimination. Women are not a homogenous group, therefore using an intersectional lens will allow consideration for interplay between any kind of discrimination, for example age, gender, race, class, ethnicity, sexuality etc. Intersectionality is a key concept in gender research that was first brought to the attention of the academy by Black feminists in the late 1980s, largely in response to the white feminist movement's lack of awareness about racism (Crenshaw 1989). The United Nations has adopted intersectionality to combat violence against Indigenous women and girls:

Indigenous women stand at the intersection of gender (being women) and racial inequality (because they are indigenous). In this respect, indigenous women experience at least five layers of discrimination; on the basis of gender, ethnicity, poverty, often being rural, and increasingly as migrants (APWLD 2008 p.11).

Drawing on Australian Bureau of Statistic census data, research undertaken by Parmenter at Western Australian mines (Parmenter and Barnes 2020; Parmenter et al., 2020; Parmenter and Barnes 2021) and Drummond's own experience as an Aboriginal and Torres Strait Islander woman working in the industry for over a decade, this paper explores the following key questions. What has been the experience of Indigenous women working in the Australian mining Industry? And how is the mining industry recognising or responding to gender-based employment impacts for Indigenous groups, including establishing specific gender-based policies for this group?

These findings are supported in another recent study of Indigenous

2. Approach

This article is the result of a collaboration between a non-Indigenous female researcher (Joni Parmenter) and an Aboriginal and Torres Strait Islander female industry professional (Florence Drummond). Parmenter has over 15 years' experience as an applied researcher at the Centre for Social Responsibility in Mining at The University of Queensland. Parmenter's positionality as a non-Indigenous woman is different to that of co-author Drummond, thus this paper is their joint work and a reciprocal learning exchange. This article draws on interviews with Indigenous female mine employees undertaken by Parmenter over the period of 2019–2020,² and Drummond's personal experience of working in the industry at both residential and FIFO operations as a Fixed Plant Operator. Drummond also co-founded the Indigenous Women in Mining and Resources Australia (IWIMRA) in 2017. This organisation was established to create a network for Indigenous women in the mining and resources industry in Australia and has since grown its reach and relevance internationally.

Our approach is informed by Indigenous feminist literature that recognises the intersection of gender, race, and colonialism (see, for example Green, 2017) and the work of Indigenous scholars (e.g., Moreton-Robinson 2000; Davis 2012; Fredericks, 2004; Huggins 1994, 2022; Liddle, 2017; Moreton-Robinson 2000; McQuire 2018). Indigenous women have long been concerned about the lack of white feminists' awareness of racism, which led many Indigenous scholars not identifying with the wider women's movement. For those who do not deem their culture to be patriarchal, feminism is irrelevant (Turpel, 1993; Monture-Angus, 1995) and for others, issues of race and class come before gender (Fredericks, 2004; Huggins 2022; Moreton-Robinson 2000). In Australia, many Indigenous women do not call themselves feminists, although this has changed over time with women developing their own Indigenous feminisms (McQuire 2018). However, this is not to say that Indigenous women do not hold concerns about sexism. Jackie Huggins, a Bidjara and Birri Gubbi Jaru woman and well-known historian and author, explains:

With Aboriginal women here, you go to them and they'll say, 'I'm not really a feminist'. But what they're really saying is they really are but we have terms in which we describe ourselves as Aboriginal women and those terms are Aboriginal words like Tiddas, miminy, kudgeri and montajula. Now all those words mean 'very strong Aboriginal woman'. Women tend to shy away very much from the word feminist because we see it as a white feminist interpretation and a white word (2022 p. 71).

The importance of applying an intersectional gender lens in the development literature is well established. Investment in women delivers positive outcomes for health, education and development. However, the extractive industries approach to gender inclusion lags significantly behind international practices used by development practitioners (Keenan et al., 2016). Very little is known about how overlapping oppressions (i.e., based on Indigeneity and gender) create different experiences of mining work. Of course, there are differing experiences amongst Indigenous women, and we are cognisant of critiques highlighting the tendency to homogenise the experience of Indigenous women (Huggins 2022; Mahy 2011; Leach 2008). Following Lahiri-Dutt, 2011, (see also Langton, 2008; O'Faircheallaigh, 2013; Sinclair, 2021) this paper takes a strength-based approach, shifting away from the discourse of victimhood to recognise Indigenous women's agency, and that agency is, to varying degrees, shaped by cultural and social context, and that norms and values shift.

Further evidence of Indigenous women's agency and strength in

Australia is provided by demonstrating their relative success in entering and remaining in the mining workforce compared to their non-Indigenous counterparts. This is despite the absence of company employment strategies specifically aimed at this group. However, Indigenous women remain underrepresented in the mining workforce and more can be done to address the needs of this group. As a recent study by the Lowita Institute acknowledged:

strengths always need to be understood in relation to constraints. For example, a narrow focus on strengths risks portraying individuals and communities as responsible for their situations, shading out wider relations of power and socio-economic inequality (Bulloch et al., 2019:1).

For, Davis (2012), it is critical to pursue Indigenous women's self-determination by ensuring Indigenous women are provided with the opportunity to make decisions about their involvement in mining employment and that their voices are heard. It is important to note that while Drummond advocates for increasing the participation of Indigenous women in the sector, this is not necessarily the primary driver for Parmenter. Rather, Parmenter's interest lies in exploring how industry is responding to the issue of intersectionality within existing corporate frameworks, policy and practice, and where the constraints and opportunities are. The first part of the article provides a brief overview of Indigenous women's participation in the Australian mining industry and discusses differences in participation. The second part of the article discusses the experiences of Indigenous women working in the industry, drawing on research undertaken by the first author, Parmenter. The research was funded by Rio Tinto and approved by The University of **Oueensland Human Ethics Committee, with Parmenter having editorial** control over material used in journal publications. The research aimed to assess Indigenous employment outcomes and key factors influencing retention at five different operations in Western Australia. Four of these were iron ore mines in the Pilbara region (Parmenter and Barnes 2020) and the other was Argyle Diamond Mine in the neighbouring Kimberley region (Parmenter et al., 2020). This research involved a review of the employment data of these operations and interviews and focus groups with a total of 56 current and 28 former Indigenous employees. Females represented 36 per cent of participants, much higher than their representation in the total Indigenous workforce across all Pilbara iron ore operations (23%) and Argyle Diamond Mine (19%). Data was analysed by theme and quotes presented in this article were selected across all sites. The final section of the paper considers the implications of the research for policy and practice.

3. Indigenous women's participation in the Australian mining industry

Indigenous women have a long history of working in mining in Australia. In Australia's Pilbara region, records indicate that Indigenous women were labouring in small-scale mining activities as early as the 1906 (Wilson 1980). With the arrival of larger mining companies in the 1960s and 1970s, Indigenous participation declined. Indigenous peoples were excluded from employment opportunities at these new mines, and their small-scale mining activities could not compete with these larger companies (Edmunds, 1989).

The 2001 national census counted just 156 Indigenous women working in the mining industry across Australia (Fig. 1). This number has continued to increase over time, with the 2016 census counting 1282 Indigenous women, representing 19.3 per cent of the total Indigenous mining workforce. Perhaps not surprisingly, most of the current Indigenous female employees are working in the major mining jurisdictions of Western Australia (51%) or Queensland (30%). Of interest is the fact that across Australia, Indigenous women's representation in the mining workforce compared to their male counterparts is higher than that of non-Indigenous women. In 2016, Indigenous women represented 19.3 per cent of the Indigenous mining workforce, whereas non-Indigenous

² Some quotes from participants do not identify the mine site or job role to protect the identity of the participant. This occurs where there are very few Indigenous women in this role or mine site.

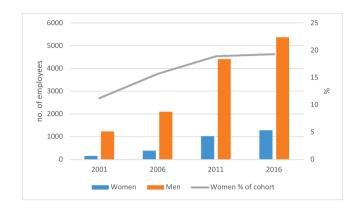


Fig. 1. Indigenous employees in mining 2001-2016 (ABS, 2016).

women represented 16 per cent of the non-Indigenous mining workforce. All but one commodity (non-metallic mineral mining quarrying) saw an increase in the representation of female Indigenous employees over the 10-year period from 2006. Coal has seen the largest increase.³

Indigenous women as a percentage of the Indigenous cohort stagnated between 2011 and 2016. It is curious this lack of growth occurred at the time when the industry was the most pro-active in promoting gender diversity. One possible explanation is the global financial crisis and resulting job losses in roles traditionally occupied by women. This data further supports the point that the focus on female employment in mining is driven by the 'boom and bust' cycles of industry (Keenan et al., 2016).

3.1. Job roles occupied by Indigenous women

Indigenous employees continue to be underrepresented in senior roles in the mining industry. For example, 10 per cent of non-Indigenous workers are managers, whereas just 2.7 per cent of Indigenous workers occupy this position (ABS 2016). However, when looking at roles occupied by women in the mining industry, Indigenous women

Table 1

Job roles by gender and Indigenous in the Australian mining industry (ABS 2016). $^{11}\,$

Occupation	Total #I ndigenous employees	Indigenous women # (%)	Total # non- Indigenous employees	Non- Indigenous women# (%)
Managers	178	47 (26.4%)	14,205	2762 (16.3%)
Professionals	313	109 (34.8%)	20,492	7612 (27.1%)
Technicians and Trades Workers	1547	117 (7.6%)	44,947	1940 (4.1%)
Community and Personal Service Workers	52	20 (38.5%)	730	332 (31.3%)
Clerical and Administrative Workers	331	243 (73.4%)	4186	8142 (66.0%)
Sales Workers	20	8 (4.0%)	465	178 (27.7%)
Machinery Operators and Drivers	3622	621 (17.1%)	49,365	4697 (8.7%)
Labourers	454	88 (19.4%)	6478	1156 (15.1%)

outperform their non- Indigenous counterparts in terms of representation in senior and jobs traditionally occupied by men (Table 1). For example, of those Indigenous employees occupying management roles, 26.4 per cent are women. This compares to 16.3 per cent for non-Indigenous women. Female Indigenous workers represent 17.1 per cent of all Indigenous people employed as machinery operators and drivers, almost double non-Indigenous women's representation in this position (8.7%).

3.2. Accounting for differences in participation

The data presented clearly shows the industry remains male dominated for both Indigenous and non-Indigenous people. Interestingly, Indigenous women appear to be outperforming non-Indigenous women in terms of representation in both the industry as a whole and in more senior and traditionally male occupied roles. So, what accounts for this difference in representation?

One possible explanation is that many mines are located in remote regions, where Indigenous populations represent a higher proportion of the total population and perhaps women are more likely to work at a residential site (Parmenter and Barnes 2020). A complicating factor in answering this question with any certainty is that many mines now operate as FIFO, where employees fly in from other regions and stay for their entire roster. Without access to company employment data citing home addresses, it is difficult to accurately determine. Census data defines 'usual residence' as the address at which a person lives or intends to live for a minimum of 6 months, so FIFO workers could possibly be counted as living at the mine.

It is also possible that Indigenous women have been recruited at a faster pace due to industry drivers to recruit Indigenous people over the past couple of decades. Indigenous employment provisions are typically included in agreements between Indigenous groups and mining companies (Caron et al., 2019; Caron and Asselin, 2020; O'Faircheallaigh 2016) and many companies have Indigenous employment policies and strategies in place. The mining industry is the biggest private industry employer of Indigenous people in Australia, with Indigenous employees representing 3.8 per cent of the mining workforce, well above the average 1.7 per cent Indigenous employment rate for all industries.

Another possibility is that roles traditionally perceived to be masculine (e.g., truck driving) by non-Indigenous people are not seen as such by Indigenous women. Many of the women in Parmenter's research aspired to work in roles that were 'hands on' and preferred to work in areas with a higher cohort of Indigenous people, which are typically located in these 'masculine' positions. An Indigenous female trainee mechanic explained her aspiration to be a mechanic and to start her own business on her traditional land, which shows how learning can differ for Indigenous people:

I've always wanted to go into the mechanical field. My brothers are fitters, and one of my other brothers is a boilermaker. One of my long-term goals is to, once I get my trade, open my own mobile mechanic business to get contracts with Rio to come and do the job, a good business and a good partnership between Traditional Owner and the company that's mining on their Country. A lot of my people, they don't have a great education. So they feel intimidated. They can't read or they can't write properly, . but they're really good with their hands, they've got hands-on skills...And if you show them how to do something, they'll know how to do it. [Trainee Mechanic, West Angeles, FIFO iron ore operation, Pilbara, 16/10/19].

3.3. Practices at the operational level

Very limited Indigenous employment data at individual mines are publicly available. A study undertaken in 2007 showed a high level of variability across 10 major operations, with Indigenous representation ranging from one per cent to 22 per cent of the total workforce (Tiplady

³ In 2016, Indigenous women represented 16.8 per cent of the total Indigenous workforce up from 8.8 per cent in 2006.

and Barclay 2007). Perhaps not surprisingly, those operations with higher percentages had land use agreements in place that included Indigenous employment commitments. More recent published company data is limited. Most major companies publish the percentage of 'Indigenous employees' and 'women' in annual reports, but do not report the percentage of Indigenous women. Further, there is no disaggregation of job roles, whether the employees are FIFO or living locally, or if they are members of the mine's traditional landowning group.

Research undertaken by Parmenter and Barnes (2020) at Rio Tinto's iron ore operations in the Pilbara region of Western Australia sheds some light on the profile of Indigenous women at an operational level. Rio Tinto are a major employer of Indigenous people in this region, employing almost 1000 Indigenous people across 16 mining operations. Indigenous women represent 23 per cent of the total Indigenous workforce, compared to non-Indigenous women representing 16 per cent of the non-Indigenous workforce. Indigenous female employees represent a larger proportion of both the local workforce (27%), and Traditional Owners of the mining lease 4 (24%), than their male counterparts at 25 per cent and 19 per cent respectively. Indigenous women also had the highest voluntary turnover of any cohort (7.9%).⁵ Exit data did not disaggregate by gender and many of the categories assigned as a reason for leaving do not provide detail. For example, the broad category 'Family and Lifestyle' was the most cited reason for leaving in 2018. The Indigenous Support Officers in the study advised that this category acts as a default for those who do not wish to advise the true reason. As has been the case for over a decade, Indigenous employees were underrepresented in senior roles in this study, with 64 per cent occupying operator roles compared to 41 per cent for non-Indigenous employees. This means the Indigenous workforce are likely to be disproportionally impacted by the industries shift to automation (Holcombe and Kemp, 2020).

For another of Rio Tinto's mines in Western Australia, Argyle Diamond Mine, Indigenous women represented 19 per cent of the total Indigenous workforce in 2020, compared to just 7 per cent for non-Indigenous women of the total non-Indigenous workforce (Parmenter et al., 2020). It is important to note that these data were collected when the mine was about to cease production and, as such, workforce numbers were relatively low compared to previous years. Female Indigenous representation was as high as 33 per cent of the total Indigenous workforce in 2007 (Tiplady and Barclay 2007). Parmenter et al. (2020) identified two possible explanations for the decrease in Indigenous women's participation over time. Firstly, the shift to underground mining reduced the amount of support roles required on site, most of which were occupied by women. Secondly, local Indigenous women may not have felt comfortable working underground due to the cultural significance of the mine location. The sacred site where the open cut pit is located, Barramundi Gap, is a place of great cultural significance to Traditional Owners, especially women. It is a resting place for the female Barramundi creative Dreaming being (Doohan 2006). A female respondent in this study explained that being underground would mean being physically closer to that site, and many local Indigenous women would refuse to do that (Parmenter et al., 2020). Reasons given for leaving employment at the Argyle Diamond Mine varied, with no significant differences between Indigenous women and men. The most common reason was to seek an employment or training/education opportunity elsewhere, which is not surprising given the reported lack of career development opportunities for the Indigenous workforce. There were some gender differences, with 38 per cent of female Indigenous respondents indicating they were promoted during their employment at Argyle, compared to 52 per cent for Indigenous men (Parmenter et al., 2020).

3.4. Gender policy gap

The increased participation of Indigenous women in the mining industry has occurred in the absence of any policies or strategies aimed specially at this group. Parmenter's research has not found any evidence of employment policies or strategies specific to Indigenous women or any regular internal reporting of this cohort, and very few mining company sustainability reports disaggregate employment data on women. The implication is that even if there are initiatives aimed at Indigenous women, their success or otherwise cannot be measured. A related point here is that success of Indigenous employment is typically measured using quantitative indicators. That is, the more Indigenous employees; the better, and the less staff turnover; the better. There is less consideration of what might constitute a positive outcome from mining employment for these women, whose orientations towards work and employment often differ to that of mainstream (Altman and Hinkson 2010; Austin-Broos, 2003; Austin-Broos and Macdonald 2005; Trigger 2005; Peterson 2005). In the next section, the experience of Indigenous women working in the sector are discussed, by drawing on data collected by Parmenter and Drummond's personal reflections from working in the sector and managing the IWIMRA network. This data reveals some implications for gender policy and practice in the resource sector.

4. What has been the experience of Indigenous women working in Australian mining industry?

The following discussion of Indigenous women's experience working in the Australian mining industry draws on research undertaken by Parmenter at Argyle Diamond Mine in the Kimberley region of Western Australia (Parmenter et al., 2020) and three iron ore operations in the neighbouring Pilbara region (Parmenter and Barnes, 2020) as well as Drummond's personal experience as an Aboriginal and Torres Strait Islander woman working in the industry for over 10 years. Drummond's introduction to mining was in 2009 as a Fixed Plant Operator at Rio Tinto's bauxite mine at Weipa in far north Queensland. Drummond first heard about the mining town of Weipa from a local newspaper calling for Traditional Owners and local people to apply for the role. The mine was the closest to her home community of Thursday Island in the Torres Strait, enabling Drummond to be closer to home and still earn a competitive wage. Drummond felt she had been away from her community for far too long, after attending boarding school in southern Queensland from the age of 12 and working in major cities. Drummond also wanted to be closer to home to care for her ageing grandmother who was growing ill. Drummond explained her connection to her grandmother:

It is very common in our culture for such significant influence to guide us throughout our life and shape our values....hence why our ties to our families and responsibility to our communities is always a core value to our actions.

It is important to note that the mining operations subject of Parmenter's research are not necessarily typical of other operations across Australia in that they all have Indigenous land use agreements that include Indigenous employment commitments. All the mines studied had Indigenous employment targets and strategies in place, although none of these were directed at Indigenous women specifically.

 $^{^1}$ 'Occupations in Mining Industry' data listed in this table does not include the ABS census categories for this question 'not stated' and 'inadequately described'.

⁴ This category includes all Traditional Owners, regardless of where they live (locally or outside of the region). Traditional Owners are Aboriginal peoples who have signed Land Use Agreements with Rio Tinto.

⁵ Voluntary turnover was 6.7 per cent for Indigenous men, 5.7 per cent for non-Indigenous men and 6.3 per cent for non-Indigenous women.

4.1. Balancing caring responsibilities with mining work

The great majority of women who participated from Argyle Diamond Mine during 2020 were young and single (81%) and did not have dependent children (88%) at the time they commenced employment at the mine. Reasons recorded for why other Indigenous women were not accessing employment opportunities were mostly around them having responsibility to care for their children, compounded by a lack of flexible working arrangements and suitable childcare. Some examples were provided of young women who left employment at the mine when they fell pregnant. According to respondents, there is a lot of pressure in local communities (nearby to the mine) for Indigenous women to stay home with their kids:

There was just no question if I would go back to work after my kids, absolutely not. My partner wouldn't have allowed it, his family wouldn't have allowed it. It just wasn't going to happen. "You got kids now, you look after the house, and you make sure my lunch is on the table when I come home". It's still that kind of old school thinking. As soon as they [Aboriginal women] fall pregnant the expectation is she just leaves [work] and don't go back to work until the child is at school. [Administration role, Argyle Diamond Mine, 9/ 4/20].

They [the industry] are not looking at bigger picture stuff for women on site. There are a lot of mums who want to get back into the workforce after looking after kids, but childcare is a barrier and not all women want to do operating, what else is there? [Operator, Yandicoogina FIFO iron ore mine, Pilbara, 14/10/2019].

This first quote is from a woman who started work at the mine after her relationship ended and she felt more comfortable making that choice. Similar issues emerged from data collected at the iron ore operations in the Pilbara region. Some women spoke about the need to attend to family responsibilities (such as caring for children and attending cultural events) and the conflict with their work schedule or roster. Drummond's observations while working at a residential mine site in Queensland for seven (7) years was that many of the Indigenous women were able to continue working because of extended family support. Traditionally, raising children is a shared responsibility in her community. While being away from family, especially young family, is more difficult at FIFO sites, a small number of young women with young children working at iron ore operations were doing just that. Many indicated that a supportive partner was critical to them being able to make this choice:

A big reason why I'm here and I can do what I do is my partner supports me. My family supports me. All of that support just makes it a bit more pleasurable to be at work. So, if you've got support from home, you can do your job when you're away, you know? [Apprentice, West Angeles FIFO iron ore mine, 16/10/2019].

Suggestions from participants in this study for improving recruitment and retention included: providing more flexible rosters, for example, making shifts available that match school schedules; providing clear information to local communities on the range of roles available; recruiting in groups; providing leadership training and career development; and creating a safe meeting place for women on site. A recent survey undertaken by the Australian Institute of Mining and Metallurgy shows that non-Indigenous women working in the Australian mining industry have also reported difficulty balancing work commitments with family responsibilities, largely because of insufficient flexibility in their onsite rosters and work schedules (AusIMM 2021).

On the other hand, some Indigenous women at FIFO sites described their experience as a form of respite from the pressure they face in their home communities. These sentiments emphasise the hectic nature of life at home and being on constant call to family, friends, and relatives. Indigenous women in Australia carry out a significant amount of work caring for families (AHRC 2020). Indigenous women at FIFO sites spoke about not getting enough sleep at home due to the noise of family members or community, not being able to lock their door at night, and the pressure to share money with family. Participants said:

A lot of us care for family. When I'm at home, I'm a carer for my dad, so being here [at work] is a bit of respite in some ways. Because when I'm at home, I'm still working, driving him around to appointments and stuff. Some people will sort of have the same thing, looking after some of their Elders that they're required to look after, and taking on other people's kids as well. All sorts of stuff. [Workshop Trainee, Yandicoogina, FIFO iron ore operation, Pilbara, 14/10/19].

Yeah, you know. Now and then, if I could stay for my one week off, I'd stay here for my week off. I like the quiet time. For me, being here is quiet time. This routine I've got here is my, believe it or not, my time-out, you know? [Operator, West Angeles, FIFO iron ore mine, Pilbara, 16/10/19].

Sometimes you go back [home], and you'd just rather be at work. You can do whatever you want in your own time... without anyone annoying you. No stress or anything. [Operator, West Angeles FIFO iron ore mine, Pilbara, 17/10/19].

This issue was also raised by Canadian Indigenous workers at the Romaine River hydroelectric project (Guimond and Desmeules, 2018). The workcamp is considered a safe respite from problems in reservations, such as overcrowding and family stress.

4.2. The mine site hierarchy

For Drummond, the fact that most of the workforce are male is not as relevant as the fact that most of the workforce are non-Indigenous. This supports the view of some Indigenous scholars, who argue that Indigenous women view disadvantages of Indigeneity and class above those of sex (Huggins, 1987, 2022; Behrendt, 1993) and that 'Aboriginal women are politically aligned with Aboriginal men' (Behrendt, 1993 p.32).

A consistent theme in Parmenter's research over the last decade or so is that Indigenous women perceive themselves as occupying the bottom position in the mine site hierarchy. Non-Indigenous men are at the top, followed by non-Indigenous women, Indigenous men, and lastly, Indigenous women. Quotes from Indigenous women working at Century Mine in Queensland some years ago demonstrates this point:

Male supervisors don't take you seriously...they're not going to listen to a woman, think a woman can't know any better than they do, especially a Black woman. (Parmenter and Kemp 2007 p.7).

White women get looked after. Do they think we are not intelligent enough to move up to these positions? I mean we're not back in the Stone Age, there are some smart Aboriginals out there. (Parmenter 2011 p.77).

Parmenter's more recent research at Rio Tinto iron ore operations and at Argyle Diamond Mine indicates that not much has changed in this regard:

Women bully other women. It's also a racism thing. White women say "You're only getting that because you're Aboriginal". Some of the white women are territorial and not supportive. Constant little digs, there's more bullying from them than from the men. [Indigenous Support Officer, Perth, (works at various iron ore mine sites in the Pilbara) 10/9/2019]

I felt like I was picked on by one worker there, it was, like, a white guy. I wasn't the only one, he was always on my friend's back too, cause we were the only two Aboriginal women there, he had the power, see? [Operator, Argyle Diamond Mine, 6/4/2020]

Indigenous women spoke about how the hierarchy is reflected in job roles, where a racial stratification occurs with Indigenous employees

occupying the lower skilled, and lower paid jobs. Indigenous women perceive they have even less opportunity than their male counterparts for career development opportunities in this male dominated domain. For the few who have been promoted, site gossip often falsely attributes their success to a sexual relationship with supervisors. The position at the bottom of the mine site hierarchy may also subject Indigenous women to higher levels of sexual harassment. In colonial Australia, white men 'sexplorers' were lured to the Northern Territory by money, wealth and Indigenous women, who were labelled 'Black Velvet' (Huggins 2022 p. 23). Drummond's experience is that a certain level of sexual harassment from men has long been tolerated on site.

Many of the women in the IWIMRA network regularly reflect on their own experiences of sexually inappropriate conduct by male co-workers, including Drummond, who has personally experienced sexual harassment by men (both Indigenous and non-Indigenous) at work. The biggest challenges for Drummond were the reporting of harassment due to concerns that she would be labelled 'too precious' for the industry, concerns the process would not respect confidentiality, and no confidence that anything would be done about the reported harassment. This issue with reporting was also highlighted in a recent report on workplace culture at Rio Tinto (Broderick, 2021). Very few survey respondents in this study reported incidents through formal reporting channels due to concerns the complaint would not be taken seriously, and that they would experience repercussions, and, in some cases, employees lack knowledge of the appropriate reporting mechanism. Disturbingly, employees reported that the persons subject of complaints were protected or even sometimes rewarded (Broderick 2021:7).

The following passage presents quotes from two young female Indigenous trainees that demonstrates how gender, Indigeneity, and occupying a junior position can intersect to create further discrimination.

Trainee No.1:

Everyone can see I'm good at my job. I'm learning my job, I'm getting better. I'm getting all this feedback. For me, the guys, they tell me, "We're going to be really hard on you." And I was like, what? Why are you going to be hard on me? He said "You're a trainee. You're an Indigenous lady, and you're a Traditional Owner of this country. We want to make you the best in our field as a female."[Inland FIFO iron ore operation, Pilbara, 16/10/19].

While this could be interpreted as encouragement it could also be interpreted as the [non-Indigenous] men justifying making this employee work harder than they would any other employee. The same woman spoke about the experience of another young Indigenous woman in her team.

Trainee no.1:

And there was a day when I was working with her [Trainee no. 2] team ... And she was working in a different bay as me and she had a really rough experience. And then the guy that actually put her down [insulted her] walked over to me and he said, "Oh, look at you, you're always dirty and always doing things. Can't you go and tell your friend there?" And he was saying this really bad stuff about her, and I said, "Hey wait a minute. How about you give her a go? We're both trainees, and how you're speaking to her is not on, and it's disrespectful." I think it was more of an intimidation thing. Trying to intimidate her. [Inland FIFO iron ore operation, Pilbara, 16/10/19].

The woman referred to in this example was also interviewed (Trainee 2). She described her experience as an attempt by this man to bully her into doing unsafe work.

Trainee 2:

Trainee 2.

He was doing work with a rattle gun [a tool] when a mayday call was on, so it should have been tools down. And then he said to me, "Oh, you should be up here doing this, you're a trainee, you want to be one of us, you want equal rights." So I just felt like a fool, so I just grabbed it and got up there, and went to go put it on. And obviously it's heavy, so the rattle gun's 20 odd kilos, just the gun itself. And obviously on an uneven surface, the wrong platform, and trying to do it, I couldn't get my balance properly. And I put it on there, and it slipped off and missed my head, probably not even by 15 cm, I reckon. And he's gone down to where everyone was standing and said, "Oh, I try to give her a task, she couldn't do it, she's effing useless." I got quite upset about it. And then coming to work the next day, I was very anxious, and I started developing anxiety. And I was throwing up that morning, and I just didn't want to go to work. [Inland FIFO iron ore operation, Pilbara, 17/10/19].

This young woman was new to the industry and had only been working at the site for 3 weeks at that time. Encouraged by another female Indigenous employee, this woman reported the incident. She explained:

So it's been rough. But I know that I know that I like this job and I want to be in this industry, and I know I'm strong enough as a person to deal with it and overcome it. And that's where I've had to, I've had to take responsibility. I had to go to the supervisor, I had to report it properly to get the incident looked at properly, for me to be able to move forward. And that's what I had to do.[Inland FIFO iron ore operation, Pilbara, 17/10/19].

As a result of reporting this incident, Trainee 2 was moved to a different team. There were no ramifications for the person accused of bullying her.

4.3. Navigating gender roles and cultural difference

Navigating gender roles within Drummond's own cultural frame has not been easy. Take for example the experience forming IWIMRA. Despite the tendencies for the separation of male and female domains in Indigenous society, some Indigenous men were critical of a female only network. These men were concerned that creating a gender divide would dilute the issues experienced (e.g., racism) by all Indigenous people in the industry as a collective and make responding to these issues more difficult. Further, some female members of Drummond'scommunity cautioned that it was not the role of women to speak out or to be a community spokesperson. These views made the 'leadership' title uncomfortable for Drummond and difficult to accept. Drummond was also deeply concerned over a possible perception she was disloyal to her community by excluding Indigenous men. Huggins (2022 p. 72) has also struggled with such feelings:

Our men, and dare we get on to that subject, our men are starting to get a bit agitated with seeing Black women in this country gravitating towards feminism rather than back to the Black environment, the Black community if you will. The whole problem of where one is disloyal to their people or appears to be disloyal to their people is something that I, certainly as a Black woman, have had to grapple with.

On the other hand, Drummond has been buoyed by the positive feedback, emails, and messages she receives from female members who greatly appreciate the female only network. Having the support of other Indigenous people, especially other women was important for Indigenous women in Parmenter's research. The following comments from participants demonstrate the support provided by other Indigenous women on site:

Having women on the team is always good too. When I first started, they said "you're a woman, you go into an admin role". I lasted 6 months [in the admin role]. Thankfully I ended up with the Day Crew team [Operator (truck driving) role] and there was an Aboriginal woman there, and I thought well if she is operating... and there was another old girl there and I thought well, I'll have a go too, and they

inspired me to go into the operations side of things [Operator, Yandicoogina FIFO iron ore mine, Pilbara, 15/10/19].

Some of us, there's a lot of us, in general, Indigenous people are quiet people. We don't rock the boat. Like seriously. So sometimes it's hard for us to go straight up to our manager and go, "Look, seven times now I've asked to get on a course and do team leadership" So we're lucky to have someone like [female Indigenous Support Officer, name withheld] and we can go to her after-hours and speak to her and she can mitigate that between the managers and sort of make it a bit easier for us to have the conversation. [Operator, West Angeles FIFO iron ore mine, Pilbara, 16/10/19].

5. Implications for policy and practice

While there has been a push to increase women's participation in mining over the last couple of decades, the industry's failure to adopt an intersectional approach to mining employment policy and practice has likely resulted in missed opportunities to increase participation of Indigenous women and improve outcomes for those already employed. With a significant lack of research in this area, industry has little guidance as to how to manage the intersection between gender and race. The findings of this research offer some insight for future policy and practice.

Very few Indigenous employment strategies incorporate a gender lens in their design. Likewise, strategies aimed at women do not incorporate an intersectional lens that would highlight the needs of Indigenous women. Identifying the generic category 'women' privileges non-Indigenous women's experience or situation (Moreton-Robinson 2000). Under the current framework, for example, it is quite possible that non-Indigenous women and Indigenous men are unintentionally favoured for opportunities that arise.

As a priority, culturally safe reporting mechanisms for sexual harassment, racism, gender-based discrimination, violence and bullying should be implemented. Indigenous women should be informed of these mechanisms at recruitment. Importantly, as with all policy initiatives, Indigenous women (and Traditional Owners) should be involved in their design, implementation, and regular review. There are some pockets of practice acknowledging the experiences of women in local contexts. For example, mining company St Barbara have taken on the task of countering gender subordination and exclusion at their Simberi Mine in Papua New Guinea. The company undertakes annual gender audits to identify safety risks that face women as part of their 'Gender Smart Safety' program. In addition to these audits, in 2016, St Barbara initiated a 'Warrior Program' addressing family sexual violence, which is delivered to employees as well as community members. According to St Barbara, this program has strengthened awareness of, and compliance with, safety protocols amongst workers. The result was an 18 per cent increase in the percentage of women who feel happy about their safety at work in the programs first year (MCA 2018).

There are likely many Indigenous women interested in working in mining, but insufficient effort made by industry to attract, and retain, this group. Participants in this research suggested initiatives including making shifts available that match school schedules; providing clear information to local communities on the range of roles available; recruiting women in groups; providing a safe meeting place for Indigenous women on site, implementing career development plans and providing leadership programs.

Importantly, such initiatives cannot be effectively monitored or evaluated without appropriate employment data. The collection and reporting of employment data for Indigenous women is required to increase visibility of this cohort. As highlighted previously, no evidence was found of employment policies or strategies specific to Indigenous women or any routine internal reporting of this cohort, nor do mining company sustainability reports provide data on this group. Further, lumping all Indigenous peoples together fails to acknowledge the special position and importance of employing those who are Traditional Owners of the land being mined (whether their rights are formally recognised or not). It is also important to gain a deeper understanding of why Indigenous women leave the industry. Some companies routinely conduct exit interviews, but often not in a culturally safe way or they fail to provide sufficient insight into the reasons the employee is leaving the company. Participation, turnover and career development for Indigenous women (and men) should be actively tracked. For those employees from traditional owning groups, these should be reported to Traditional Owners representatives as they may offer solutions to issues (e.g., a period of high turnover or cultural leave). This lack of disaggregated employment data reflects the reporting standards more broadly across industry for Indigenous participation and calls for a major adjustment to reporting standards.

Finally, the unintended consequences that sometimes accompany initiatives aimed at addressing Indigenous disadvantage require action. For example, preferencing or quarantining positions for Indigenous people can challenge principles of fairness strongly held by some non-Indigenous employees, resulting in criticism of those initiatives and racism toward Indigenous recipients. This is especially the case for Indigenous women who represent a double minority, identifying as both Indigenous and female. A commonly heard phase from members of the IWIMRA network, and in Parmenter's research, is, 'You only got the job because you are an Indigenous woman.' While Indigenous men also experience these kinds of accusations, it is Indigenous women who suffer the added perception of the 'double diversity hire' (Bergmann 2022). Another common phrase Parmenter has heard from non-Indigenous mining employees over a period of 15 years is, 'I don't care if you're Black, white or brindle'. This statement is often used as a precursor to justify the selection of an employee (or business enterprise) based on performance, and to assure the listener they are not racist. However, positive discrimination is precisely what is needed to address the disadvantage faced by Indigenous communities, especially those nearby to mines in Australia. These kinds of attitudes present a dilemma for those charged with developing Indigenous employment strategies for women. How can the needs of this cohort be highlighted and addressed, without causing backlash from other employees?

Much more education is needed across the broader workforce about the part mining has played through the colonisation of Australia, the continued disadvantage faced by Indigenous peoples, and the way in which this links to corporate social performance commitments. Aboriginal cultural awareness training has the potential to address the tension between fairness principles and positive discrimination, although such training does not yet typically include such content (Parmenter and Trigger 2018). Including such content in training is a relatively easy first step for industry to take to ensure broader workforce support for Indigenous employment initiatives.

6. Conclusion

Very little is known about how overlapping oppressions create different experiences of mining work. This article has highlighted some of the experiences of Indigenous women working at Australian mine sites via the insertion of Indigenous women's voices and co-authorship with Drummond. Some issues identified were not unique for Indigenous women. However, these issues are compounded for Indigenous women who often have larger families and caring responsibilities and experience both sexism and racism. Indigenous women perceived themselves to be allocated the bottom position in the mine site's hierarchy, increasing their risk of becoming a victim of bullying and/or sexual harassment, many of whom do not feel safe reporting these incidents. These findings align with the literature from Canada on the experiences of Indigenous women working in large scale mines. Indigenous women are increasingly voicing these concerns through organisations and networks in both Canada and Australia, while major institutions are also calling for greater attention to gender (RMF, 2022).

The main themes raised by Indigenous women in Parmenter's

research and Drummond's experience working in the industry and the IWIMRA network highlight the importance of an intersectional lens for industry employment policy and practice. Issues specific to Indigenous women are currently not being systematically identified by industry. Despite strategies for employing 'Indigenous Peoples' and 'women' there is no evidence of employment policies or strategies specific to Indigenous women. Further, employment data for the categories of 'Indigenous Peoples' and 'women' are not disaggregated and nor are they reported either internally or publicly. This invisibility of Indigenous women has likely resulted in missed opportunities to increase their participation and improve outcomes for those already employed in the industry. The authors call for the industry to incorporate a gender lens to their Indigenous employment strategies and offer several insights for future policy and practice. Future research should focus on ways to break down the hierarchy at large scale mining operations so that Indigenous women can enter the mining workforce without asking themselves: 'What did I get myself into?'

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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