ELSEVIER

Contents lists available at ScienceDirect

The Extractive Industries and Society

journal homepage: www.elsevier.com/locate/exis



Original article



Factors supporting indigenous employee retention in the Australian mining industry: A case study of the Pilbara region

Joni Parmenter*, Rodger Barnes

Centre for Social Responsibility in Mining, Sustainable Minerals Institute, The University of Queensland, St Lucia, 4072, Australia

ARTICLE INFO

Keywords: Indigenous employment Retention Agreements Mining Sustainable development

ABSTRACT

Indigenous employment is a key point of engagement between Indigenous people and mining companies. Over the past two decades, research shows that the Australian mining industry has increased the numbers of Indigenous employees within the mining workforce. However, less is known about how well the industry is retaining Indigenous employees and what factors support retention. This article begins to fill this gap by presenting outcomes of qualitative research undertaken with both former and current Indigenous employees of a major employer of Indigenous people in the Pilbara region of Western Australia. We elucidate the main reasons for turnover intention as articulated by Indigenous employees and examine the strategies available to mining companies to address voluntary turnover within this cohort. The findings suggest that a culturally competent open one-Indigenous workforce, culturally appropriate support mechanisms and access to professional development opportunities are key retention factors. The paper concludes by arguing that the mining industry will need to focus both on ensuring a culturally safe workplace for its Indigenous employees, and on increasing the regional Indigenous labour pool, if it is to contribute to more sustainable outcomes.

1. Introduction

The main premise underlying research on employee retention is that the ability to attract and retain employees is critical to organisational competitiveness. Corporations typically view turnover as undesirable because of the cost associated with recruiting and training replacement employees, as well as the loss of knowledge and associated human capital, which negatively affect productivity (Beach et al., 2003:4; Holtom et al., 2008:232). While turnover costs are significant, they are often hidden from managers (Beach et al., 2003:30; Holtom et al., 2008:236), which contributes to other technical and management issues being prioritised over employee turnover (Beach et al., 2003:36, Susomrith et al., 2013).

For mining companies in Australia, there are additional drivers for reducing turnover within their Indigenous workforce (Brereton and Parmenter, 2008; Conde and Le Billon, 2017; Horsley et al., 2015).

Increasingly, mining companies are entering into land use agreements with local Indigenous groups that include employment and training provisions (O'Fairchaellaigh, 2010, 2015). Failure to meet these commitments risks disaffecting the mine's Indigenous landowners² and other stakeholders, which in turn could lead to disputation and jeopardise future access to land or project approvals. In addition to contractual obligations, most major mining companies operate to a set of corporate environmental and social standards that aim to deliver positive socio-economic outcomes, particularly for the neighbouring communities affected by their operations.

Mining companies have also made commitments to pursue relevant United Nations Sustainable Development Goals (SDGs), such as to promote 'inclusive and sustainable economic growth and employment and decent work for all' (SDG 8). Furthermore, labour shortages within the resources sector and increasing reliance on Fly-in-Fly Out (FIFO) from distant locations, emphasise the benefits of fostering a regional

^{*} Corresponding author.

E-mail addresses: Joni.Parmenter@uq.edu.au (J. Parmenter), r.barnes1@uq.edu.au (R. Barnes).

¹ Agreements between mining companies and Indigenous groups are legal contracts outlining matters such as project approval and support; compensation and financial payments; cultural heritage protection; Indigenous employment and business development; liaison and communication; and environmental management and protection (Barnes, 2013:2).

² We use 'Indigenous landowners' to refer to the individuals or groups that hold cultural and spiritual responsibility for land according to Aboriginal tradition. Indigenous landowners includes native title holders, however, the term is conceived more broadly than the criteria under the Native Title Act for Aboriginal people to be recognised as holding native title.

workforce (Brereton and Parmenter 2008; Tiplady and Barclay 2006:11). Improving employment outcomes for Indigenous communities is also a powerful driver for Australia's federal government, as well as some state and local governments, who have encouraged partnerships and joint initiatives with the mining industry as a way to increase Indigenous workforce participation.

Overall, mining industry efforts to increase Indigenous employment in Australia have been successful. Census data reveal that Indigenous employment across the industry has increased almost five-fold from 1390 in 2001 (Brereton and Parmenter 2008) to 6649 in 2016 (ABS 2016). However, it is likely that variability remains high across operations and companies. A 2007 study of ten Australian mines revealed the Indigenous proportion of their workforces ranged from one percent up to 22 percent (Tiplady and Barclay 2007:74). More recent research in Western Australia's Pilbara region, the location of this research, indicates that mining presently accounts for almost two-thirds of all employment for Indigenous men and one-third of all Indigenous women in the region (Taylor 2018:142). The extent this trend will be disrupted by the industry's trend toward integrated autonomous operations remains to be seen (Holcombe and Kemp 2019).

A further important development has been the increase in Indigenous labour hire and training organisations, as well as Indigenous-owned and operated businesses servicing the industry. It is less clear how many Indigenous people these entities employ and what the prospects are in the longer-term, particularly where operations cease. According to Langton (2015:21), up to 150 Aboriginal contracting companies were operating in the Pilbara in 2015, with a combined annual turnover in the hundreds of millions of dollars.

Despite increased participation in the industry, neighbouring Indigenous communities continue to be characterised by high levels of relative socio-economic disadvantage and dependence on welfare. There is an often-polarised debate in Australia on the role of the mining industry in addressing Indigenous disadvantage. Existing qualitative research has tended to treat local Indigenous employment in the mining industry as alienating and contesting Indigenous livelihoods, rather than examine ways in which Indigenous employment can contribute to human and social development (Holcombe and Kemp 2020). There is a perceived tension or contradiction between engagement with the market economy and maintaining Indigenous values and culture. For example, working at a mine may not be desirable due its negative impact on the environment, particularly where people hold traditional responsibilities for looking after land (Trigger 2000). Some Indigenous people may not aspire to engage with the mainstream economy at all, preferring to live a completely different way of life or pursue alternative forms of economic engagement (Altman 2001; Barker 2006:10; Scambary 2007). In contrast, some prominent Indigenous scholars argue that engagement with the industry is beneficial and does not necessarily entail the loss of culture, but can in fact support and maintain it (Langton 2002, 2012; Pearson 2009).

The proposition underpinning this research is that cultural difference is an important determinant to employee retention. This is particularly the case with respect to remote Indigenous communities, where values and practices that shape attitudes toward work may differ to the mainstream Australian population (Altman and Martin 2009; Austin-Broos 2003; Peterson 1993, 2005; Peterson and Taylor 2003; Trigger 2005). The few studies on Indigenous employment within the resources sector in Australia and internationally, have identified some issues unique to these workers (Arbelaez-Ruiz 2010; Barclay et al., 2014; Barker and Brereton 2004; Brereton and Parmenter 2008; Caron et al., 2020a;2020b; Parmenter 2011; Tiplady and Barclay 2007; Sarker and Bobongie 2007). For example, the strong ethos of egalitarianism and associated pressure to share with kin (Peterson 1993; Trigger 2005) can operate to negate attempts of those wishing to accumulate personal wealth (Brereton and Parmenter 2008). A recent Canadian study indicates that high turnover of Indigenous employees is due to employees' short-term focus and grappling with social and family issues (Caron et al., 2019).

The starting point for many of these studies and other guidance tends to be with the barriers Indigenous people face in accessing mainstream employment. Such approaches necessarily highlight gaps the Indigenous population face in terms of health, educational, and employment outcomes. The problem with framing an analysis around deficits is that it may serve to reinforce negative stereotypes of Indigenous employees as being inherently problematic, effectively adding further obstacles. Tailoring programs and resources to privilege cultural aspects of indigeneity takes a strength-based approach and offers an alternative to the deficit narrative (Fogarty et al., 2018). Mechanisms such as pre-employment or 'work ready' programs have proven effective in addressing such challenges, and have increased the Indigenous employment base in remote areas. Strength-based approaches for mining and community development can 'provide a framework for more open, equitable and locally driven company-community engagement and dialogue' (Owen and Kemp 2012:404). As such, our research is concerned with how the workplace can cater to people coming from different culturally and socio-economic backgrounds. While we acknowledge the grave socio-economic situation faced by many remote Indigenous communities, the consistent employment growth of Indigenous people in the mining sector over the last decade demonstrates the potential on offer.

Much of the literature on Indigenous employment retention derives from the health sector (e.g. Deroy and Schutze 2019; Lai et al., 2018), with some examples from the public sector (Biddle and Lahn 2016; Larkin 2013). A consistent theme across these studies is the importance of providing a workplace where Indigenous culture is respected and supported by company policies and the broader workforce. Flexible work arrangements that support attending to cultural obligations toward family and community are important enablers to retention (Health Workforce Australia 2017; Watson et al., 2013). Inhibiters such as racism, lack of cultural awareness across the workforce, and lack of professional or career development (Larkin 2013) are major reasons that contribute to a decision to leave employment amongst the Indigenous cohort. Mining industry workforce studies more broadly suggest that turnover is higher for the FIFO workforce compared to other working arrangements in Australia (Beach et al., 2003; Susomrith et al., 2013). Research on FIFO indicate that factors such as long shifts, being away from home and family, and the difficulty adjusting to a new workplace contribute to higher levels of stress and mental illness (Clifford 2009; CTWD 2018).

Over the last two decades or more, leading mining companies have implemented various strategies to improve Indigenous employment outcomes at their operations. These strategies typically include Indigenous cultural training for the non-Indigenous workforce; special (cultural) leave for Indigenous employees; flexible work rosters; ongoing mentoring; and promoting peer support through encouraging socialising between Indigenous employees outside of work hours (Caron et al., 2019; Tiplady and Barclay 2007). Very little of the literature evaluates the effectiveness of these measures. Other deliberative measures such as incentives and sanctions to ensure supervisors promote Indigenous participation are said to be effective (O'Faircheallaigh 2006).

In order to address the lack of research, this paper highlights the key factors that contribute to voluntary Indigenous turnover as identified through interviews with Indigenous mine employees at Rio Tinto iron ore operations in the Pilbara region of Western Australia. Rio Tinto is a major employer of Indigenous people in Australia, the great majority of which are employed at iron ore mines in the Pilbara region. The recent expansion of one of these mines destroyed a highly significant place to Indigenous landowners. National and international outrage ensued, triggering a parliamentary enquiry into the destruction of the Juukan caves. In evidence to the enquiry Rio Tinto's Chief Executive, Jean- Sebastian Jacques, highlighted the importance of Indigenous employment to their relationships with Indigenous landowners, and the need to enhance the outcomes achieved so far:

Over the years we have employed a number of Indigenous people across our business, but we need to lift our game. We do not have enough Indigenous people in leadership roles, and we will commit \$50 million to attract, develop and retain Indigenous professionals into Rio Tinto (Commonwealth of Australia 2020:2)

While Indigenous employment commitments are central to Rio Tinto agreements with Indigenous landowners, our research suggests implementation remains challenging. The insights gained from this study into factors unique to Indigenous people seeks to assist mining companies implement innovative retention strategies to improve the employment experience for Indigenous employees and maximise Indigenous retention rates.

The paper has six main sections. The next section (Section 2) provides background to the case study and Section 3 provides an overview of the methods used in this study. Sections 3 and 4 detail the research results and analysis of the research. The discussion section (Section 6) summaries the interaction of the various factors that contribute to voluntary turnover and discusses possible industry responses.

2. Case study background

The Pilbara region is located in remote north-west Western Australia. The region features an extremely large FIFO workforce servicing multiple mining companies at multiple mine sites. The mining sector is the largest employer and accounts for 72.5 percent of the total economic output in the region (Remplan 2020). The Indigenous population in the Pilbara is approximately 11,716 people, which represents approximately 19 percent of the regional population, much greater than the national proportion of 3.3 percent Indigenous people Australia-wide (ABS 2016). The non-Indigenous population has fluctuated over the last decade in response to the economic cycles experienced by the resource industry, whereas the Indigenous population has maintained steady growth. The Pilbara's Indigenous population remains highly disadvantaged across many socio-economic indicators (education, employment, health, longevity) compared to the wider regional and national population. In 2016, the official unemployment rate for Indigenous persons (unemployed measured as a percentage of the labour force) was 18.4 percent as compared to 2.7 percent for non-Indigenous persons (Taylor 2018:40).

Indigenous responses to mining development in the Pilbara have been mixed. An ongoing tension exists between 'the imperative to maintain cultural identity and the potential cultural assimilation implied by their increasing integration into a market economy' (Scambary 2007:iv). Prior to the mid-1960s, livelihoods of some Indigenous men and women centred on small-scale mining activities in the region (Wilson 1980). These activities significantly declined following the advent of large-scale mining operations in the 1960s and 1970s. Indigenous small-scale mining activities could not compete with these large companies, none of which prioritised employing Indigenous people at the time (Edmunds 1989; Holcombe 2004).

Rio Tinto's predecessor company, CRA Limited, commenced iron ore mining in the Pilbara in 1966, with little or no consultation or engagement with Indigenous people (Harvey 2002). The absence of legislation or any recognition of Aboriginal land rights prior to the 1970s meant companies were not required to consult Indigenous landowners over developments. Since then, however, major mining companies have led a paradigm shift across the industry. In 1991, a dispute with Aboriginal people over Rio Tinto's \$1.2 billion Marandoo iron ore development resulted in a costly two-year delay as well as significant reputational damage (Stevens 1991). This event, coupled with the recognition of native title in Australia propelled Rio Tinto to reconsider its approach to community relations (Harvey 2002). Even though the *Native Title Act*

1993 does not grant Indigenous people rights to minerals on their land nor a right to veto exploration or mining, it does deliver a statutory platform for Indigenous landowners to negotiate agreements with mining companies.

The first major mining agreement between a mining company and native title groups in the Pilbara was the 1997 Yandicoogina Land Use Agreement between Hamersley Iron (now part of Rio Tinto) and the combined Nyiyaparli, Banjima, and Yinhawangka native title holders. Initially, the primary focus of agreement-making was on financial payments to native title holders. Over time, the ambit of agreement making has encompassed a range of benefits aimed at delivering long-term sustainable outcomes (Altman and Martin 2009; O'Faircheallaigh 2015). Preferential training and employment are now standard conditions in the most Indigenous agreements (see O'Faircheallaigh 2015). Evidence suggests employment provisions in agreements have been effective in increasing Indigenous participation in the Pilbara mining industry. Taylor (2018: 139) estimates that over the period from 2001 to 2016, one-third of Pilbara Indigenous people are now better off (as measured against a range of key social indicators), and two-thirds are not, the difference largely attributed to employment, especially in mining. However, for some groups the gap between Indigenous people and other Pilbara residents has failed to close and, instead, may have widened.

Rio Tinto's iron ore operations have steadily expanded into an integrated network of 16 mines, 4 four loading facilities, a 1700-kilometre rail network and related infrastructure, controlled through a remote operations centre in Perth. Indigenous employment and training are a centrepiece of Rio Tinto's policy commitments and agreements with Indigenous landowners. In March 2011, Rio Tinto entered into further local level agreements (Participation Agreements) with Pilbara native title groups affected by its operations. Rio Tinto also developed a regional agreement, the Regional Framework Deed (RFD), which is intended to improve outcomes for Indigenous people across the Pilbara. The RFD contains commitments to consistent implementation aligned to seven 'Regional Standards', one of which is employment and training. 6 It also established a regional Indigenous corporation and the Regional Implementation Committee (RIC). The RIC is made up of representatives of the native title groups and Rio Tinto representatives and provides a forum to implement and review commitments under the RFD.

At a national level, Rio Tinto launched its 2016–2019 Elevate Reconciliation Action Plan (RAP) in March 2016. This RAP set nation-wide targets to increase the whole-of-group percentage of Indigenous employment to eight percent, and to aim for Indigenous retention such that 'all [Rio Tinto's] Australian businesses track retention of Indigenous employees with a target to equal non-Indigenous employees'. The RAP also requires that Indigenous achievement in leadership roles be tracked and increased year on year. In addition to the national target, Rio Tinto iron ore operations introduced a target under the RFD for 'Pilbara Aboriginal People' of 15.7 percent of the total residential workforce.⁸

³ The company's shift in approach was formally announced in a speech by then CEO, Leon Davis, in 1995. Davis urged the industry to develop competencies in understanding and responding to community concerns including working and sharing with, and compensating Indigenous people (Davis, 1995).

⁴ The 16 mines are: Tom Price, Paraburdoo, Channar, Eastern Range, Marandoo, Brockman 2, Brockman 4, Nammuldi, Western Turner Syncline, Silvergrass, West Angelas, Hope Downs 1, Hope Downs 4, Yandicoogina, Robe Valley (Mesa A), Robe Valley (Mesa J).

 $^{^{5}\,}$ Dampier Salt was brought under the Pilbara Operation banner recently, and is not included in this research.

⁶ The Employment and Training Regional Standard sets a joint goal between Rio Tinto and native title groups to improve rates of employment, work readiness, retention and career advancement for Pilbara Aboriginal People. The goal is to achieve levels at least similar to that of the non-Indigenous residents of the Pilbara.

 $^{^7}$ An Elevate RAP is for organisations that have a proven track record of embedding effective RAP initiatives in their organisation through their Stretch RAPs and are ready to take on a leadership position to advance national reconciliation.

 $^{^{8}}$ 15.7% represents the proportion of Indigenous people in the Pilbara region as determined by reference to the latest census.

The category 'Pilbara Aboriginal People' includes all Indigenous people who live in the Pilbara region and all members of the native title groups that have agreements with Rio Tinto, (also known as 'Traditional Owners') regardless of where they live.

Rio Tinto recognises that higher turnover rates amongst Indigenous employees at some locations hinders efforts to meet these targets. In 2019, the company commissioned The University of Queensland's Centre for Social Responsibility in Mining to review the company's retention strategies and identify ways to reduce Indigenous turnover. The research conducted for that project forms the basis for this article.

3. Method

This study⁹ involved a review of the employment data of Rio Tinto iron ore's operations and assets and interviews and focus groups with current (40) and former (7) Indigenous employees, as well as a small number of their supervisors (10). Of these supervisors, nine were non-Indigenous and one identified as Aboriginal. The majority of positions held by these participants were entry-level or operational roles (Truck Driving/Fixed Plant Operator) (34) and Indigenous support roles (9). Participants were aged between 22 and 60 years old. Females represented 29 percent of participants, slightly higher than their representation in the total Indigenous workforce across all Pilbara operations (23%).

Company employment data (as at March 2019) was analysed to compare retention rates between Indigenous and non-Indigenous employees and guided selection of a sample of fieldwork locations. Three operational sites was selected to capture a range of site characteristics (residential/FIFO, coastal/inland and rates of Indigenous turnover, i.e. higher/lower). Two of the operations were inland FIFO mine sites (Yandicoogina and West Angeles) and one residential port operation (Cape Lambert). Across these locations, the majority of Indigenous FIFO workers were from either Perth or the town of Broome, located in the neighbouring region. Residential employees lived in the Pilbara locations Cape Lambert and Wickham. A small number of interviews were undertaken in Perth at Rio Tinto's head office (9) and the former employees were interviewed by phone. Interview questions were developed following a review of the literature and discussions with both Indigenous and non-Indigenous Rio Tinto employees. Questions were designed to identify key factors that contribute to retention amongst the Indigenous workforce.

Data was analysed by theme¹⁰ and quotes presented in this article reflected the dominant patterns in the data and distributed across participants. There were no major differences in themes identified by age or location. However, those in loading and hauling positions (e.g. truck drivers) were more critical of career advancement opportunities than those in other roles. Further, being away from home was not an issue relevant to the residential workers. More stark differences in views were identified amongst the supervisor cohort and these are discussed later.

Limitations exist to the extent that the findings from a single company can be generalised to other companies and commodities of the resources industry. However, the inclusion of three different mining operations has addressed, to some extent, this limitation. The scale of Rio Tinto's iron ore business, which incorporates 16 mines and three ports, means it is a dominant employer of Indigenous people in the region, with 990 current Indigenous employees. As such, this case is of considerable significance to understanding factors influencing Indigenous retention across the mining industry more generally. The findings will be relevant to other mining companies that have committed to increasing Indigenous employment as well as companies that are

adopting structures and strategies to address Indigenous employment issues more generally.

4. Rio Tinto iron ore Indigenous employment profile

Before presenting results from interviews with Indigenous employees in this study, it is necessary to first summarise Indigenous employment data across Rio Tinto iron ore's operations and assets. As at March 2019, Rio Tinto iron ore operations and assets had a total workforce of 12,281 individuals, of which 8 percent identify as Aboriginal and/or Torres Strait Islander. The residential workforce in the Pilbara represents 28 percent of the total workforce, the FIFO workforce represents 58 percent, and the remaining are based in the Western Australian capital city of Perth. FIFO employees are sourced from locations across Australia, including the eastern states. Indigenous representation as a percent of the total workforce at individual operations and assets varies between 13 percent at Cape Lambert - a residential operation on the Pilbara coast, to under two percent in other assets such as rail (Fig. 1).

There were 453 'Pilbara Aboriginal People' (PAP), ¹¹ representing 13 percent of the total residential workforce in the Pilbara, and about half (49%) of the total Indigenous workforce. Included in the PAP category are 200 employees who belong to the nine native title groups, commonly referred to in this context as 'Traditional Owners', that have land use agreements with Rio Tinto.

When comparing the 2019 Indigenous employee roles to the roles of non-Indigenous, a higher proportion of non-Indigenous employees occupy higher skilled and senior roles than Indigenous employees (Fig. 2). This bottom-heavy distribution has been a feature of the industry more broadly for some time (Tiplady and Barclay 2007).

Indigenous women have a higher representation in the workforce compared to non-Indigenous women. Indigenous women represent almost a quarter (23%) of the total Indigenous workforce, whereas non-Indigenous women represent just 16 percent of the total non-Indigenous workforce.

Turning to the topic of retention, total voluntary turnover ¹² across all iron ore operations and assets was slightly higher for Indigenous (7%) employees than non-Indigenous (6%). The difference was more marked for Indigenous women, who have a higher overall voluntary turnover rate (7.9%) compared to non-Indigenous women (6.3%). However, when analysed according to the timing of when the employee left the business, voluntary turnover within the first year of employment across all iron ore operations and assets was more than double for Indigenous employees (17%) compared to non-Indigenous employees (8%). This indicates that the employment experience during the first year of employment for Indigenous mine workers is critical to retention. Some may be facing their first mainstream employment experience, and dedicated support during the first period of employment is important.

When disaggregated by operation or asset, voluntary turnover varied between two percent and 15 percent for Indigenous employees, compared to between four to 10 percent for non-Indigenous employees (see Fig. 3). Interestingly, at FIFO operations, where employees are required to be away from their home and family during their roster, voluntary turnover was not much higher than for residential sites. Total voluntary turnover across all FIFO operations was seven percent for both the Indigenous and non-Indigenous workforce. For residential operations, total voluntary turnover was lower for the Indigenous workforce

⁹ Ethics approval was approved by The University of Queensland's Human Ethical Review Committee. Approval number 2019001346.

¹⁰ Interviews were recorded and transcribed, and we conducted a thematic analysis using NVivo software (QSR International Inco., Melbourne, Australia).

 $^{^{11}\,}$ Rio Tinto iron ore use the category 'Pilbara Aboriginal People' (PAP) to refer to any Aboriginal employee currently living in the Pilbara. PAP also includes any employees who belong to Native Title groups who are signatories to agreements with Rio Tinto (Traditional Owners) regardless of where they live in Australia.

¹² Voluntary turnover is calculated by the number of voluntary exits divided by the number of total employees expressed as a percentage. Voluntary turnover is calculated over a rolling year average up to March 2019.

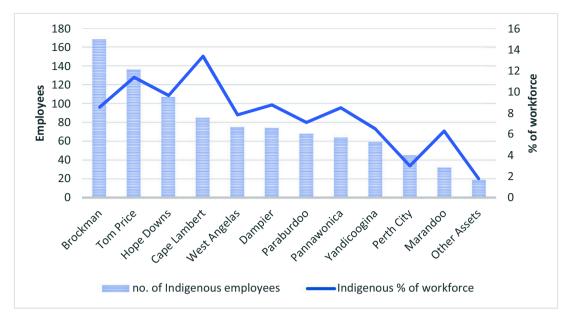


Fig. 1. Indigenous workforce across Rio Tinto iron ore operations and assets. 13

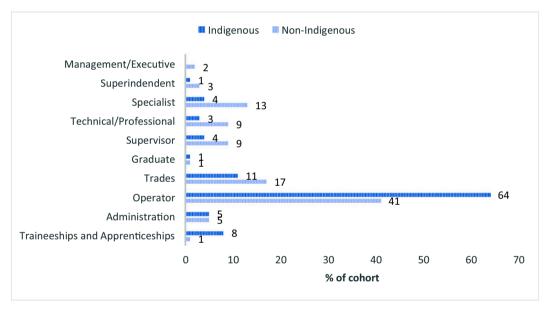


Fig. 2. Job roles of Indigenous and non-Indigenous employee cohorts 2019.

(5%) than the non-Indigenous workforce (7%).

Unfortunately, no comprehensive exit interview data was available to analyse reasons for turnover between individual sites. Rio Tinto iron ore's human resources department did not mandate a process to undertake exit interviews over the period examined in this study. Routine data collected by Indigenous Support Officers (ISOs)^{1,4} through informal

discussions with exiting Indigenous employees, however, indicate that across all operations and assets in 2018 the primary categories for leaving (inclusive of both voluntary and involuntary turnover)¹⁵ was 'Family/Lifestyle' reasons (19%), followed by 'Alcohol and Drug' or 'Fitness for Work Breaches' (12%), 'Other Employment' (10%) and 'Personal Reasons' (10%). These account for over half of the exits. Unfortunately, some of these categories are quite broad or otherwise lack precise definition, which, without further details, diminishes the insights available. For example, it is unclear if the Family/Lifestyle category refers to an issue with a roster or work arrangement (e.g. FIFO), or the impact of a family issue at home.

Further, ascertaining the main reason for leaving at the end of employment is problematic. According to ISOs, once the decision to

¹³ Brockman data is comprised of Brockman 2 & 4; Hope Downs data is comprised of Hope Downs 1 & 4; Pannawonica data is comprised of Mesa A/Warramboo & Mesa J. Paraburdoo data includes Channer Mine and Eastern Ranges Mine. Other assets data includes Rail, Pilbara Power Infrastructure, Pilbara Towns, Camps & Villages and Pastoral Stations.

¹⁴ Indigenous Support Officers (ISOs) are Indigenous employees dedicated to mentoring and supporting other Indigenous employees. They perform a range of functions including personalised support for Indigenous employees, as well as assisting key relationships such as supervisor to employee interactions and operational management's appreciation of Indigenous related issues.

 $^{^{\,15}\,}$ This data is a percentage of the total Indigenous employees (116) who gave a reason for leaving.

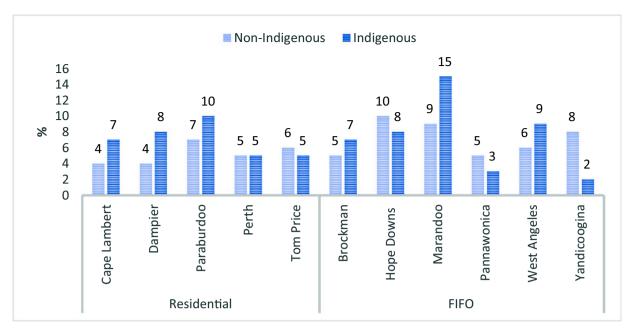


Fig. 3. Voluntary turnover by operation/asset.

leave has been made, the employee is less likely to accurately reflect on their experiences. Interviews with current employees indicate that Indigenous employees prefer to avoid confrontation. For example, where there is dissatisfaction with their supervisor, an Indigenous employee is less likely to advance 'dissatisfied with supervisor' as a major factor for leaving. In these circumstances choosing categories such as 'family', 'lifestyle', and 'personal', may act as a convenient default. In addition, interviews with ISOs revealed examples of employees choosing to resign in response to an unfolding disciplinary procedure rather than risk a record of an employer-initiated dismissal.

For eight of the nine former employees interviewed in this study, poor mental health and perceived lack of appropriate support was a common experience at some point during their employment, and strongly connected to their decision to leave. One participant exited the business due to inflexible work arrangements after returning from maternity leave. Another simply wanted a change after 15 years working. These long-term employees generally cited a positive work experience and acknowledged what they perceived to be significant personal outcomes from their employment. Three of the participants had worked their way up to supervisor/specialist roles and several cited the purchase of a home using income from employment as a significant achievement. While these individuals have left Rio Tinto, all nine of the former employees remain working in the mining industry for another company. The following section presents an analysis of the data collected from interviews with both former and current employees of Rio Tinto iron ore operations and assets, on the key factors supporting Indigenous employee retention.

5. Key factors supporting retention

The study found three key factors important for the retention of Indigenous employees: 1) a culturally competent non-Indigenous workforce; 2) culturally appropriate support mechanisms; and 3) access to professional development opportunities. These themes were consistent across the three operations included in this study. The findings resonate with those identified in several Indigenous retention studies in the health sector (Deroy and Schutze 2019; Health Workforce Australia 2011; Lai et al., 2018; Larkin 2013; Watson et al., 2013). These studies also found that a lack of Indigenous cultural awareness amongst the non-Indigenous workforce and limited professional development were major factors influencing retention. Similarly, this research also

found that racial taunts persisted in the workplace, although tolerance toward them appears to be diminishing, with several examples of non-Indigenous employees calling-out racist behaviour. Remuneration did not feature as a major retention factor in this study. Presumably, this relates to the higher than average remuneration found in the resources industry compared to other sectors.

Overall, most Indigenous employees who participated in this research valued employment with a major mining company. This was expressed in terms of a sense of pride and self-accomplishment. Positive aspects highlighted were financial security, working with good people, and learning new skills. As with the wider workforce (see FIFO studies cited above) such positive aspects are balanced against being away from home, family, and friends. Interestingly, some women working at the FIFO sites in this study favoured longer rosters. These women considered their time at work as respite from the challenges of community life. They appreciated the ability to lock their door at night, enjoy a good night's sleep, and have a break from everyday obligations to family. We now discuss the three key retention factors identified in this study in more detail.

5.1. A culturally competent non-Indigenous workforce

We use the term 'cultural competence' to refer to the ability of individuals in the workforce to work effectively in cross-cultural situations (Cross et al., 1989:iv). While both non-Indigenous and Indigenous employees can lack capacity for successful communications, in the context of Indigenous employee retention, the onus lies with the non-Indigenous workforce. In this case, interviews indicate that the non-Indigenous workforce had limited experience engaging with Indigenous people.

A significant theme emerging from the interviews is the need for supervisors of Indigenous employees, as well as the broader non-Indigenous workforce, to have an understanding and respect for the distinct cultural and historical background of their Indigenous employees. For instance, a 'good supervisor' was described by participants as one who appreciates the extent to which Indigenous employees must attend to cultural obligations, and who recognises the centrality of relationships in developing mutual trust. Supervisors who demonstrated an understanding of the challenges of employees' home life and cultural obligations to family were highly valued by participants. These supervisors demonstrate cultural competence by regularly 'checking- in' with their employees on both a professional and personal level, thereby

building the interpersonal relationship and trust with that individual.

'Cultural obligations' were most frequently referred to as attendance at funerals, and a smaller cohort referred to the obligation to attend customary law and ceremony. For Indigenous employees who strongly adhere to Aboriginal law, the consequences of not attending can be severe, including physical punishment. Precise scheduling of customary ceremonies is not easy to predict, with participants required to attend at relatively short notice. For these employees, this presents challenges balancing cultural obligations with the requirements of their job. This is especially the case for FIFO workers whose work is distant from their family and community and changing rosters and flights is not straightforward. Participants explained:

'Elder law men, they would be heads of the ceremony. And if they [Indigenous employees] were to do it properly, they would need more than ten days cultural leave, to go to specific areas, not just where you live. You need to go to other places and perform ceremony there. It's like Christmas time, like everyone gets that off if they are Christian or whatever. It's our religion, where's the leeway for that? We don't get that. Depending on where your standing is in the community, that ten days isn't enough.'

'Some places, where you've got strong cultural law ... if you don't turn up, you get cracked across the head. You go through the middle-spear through the leg. The coppers [police], ambulance, [all come] there [in response].'

Participants also emphasised that Indigenous people typically have larger families and tend to prioritise responsibilities to kin to a degree not commonly experienced by non-Indigenous people. It was widely agreed that a greater level of awareness and understanding amongst the non-Indigenous workforce is required:

'I guess just general sort of stuff, or trying to understand the particulars of family and different relationships. Our cousins are our brothers and sisters, so trying to understand that. Or even when our old people pass away, some of the obligations that we have. Yeah, so I do get asked every now and again about that sort of stuff.'

A key management strategy implemented by Rio Tinto is provision of a special leave referred to as 'cultural leave' (an additional five days), which is available for Indigenous employees. Apart from concerns over whether the five days is sufficient to fully account for an individual's responsibilities to family and elders, the provision of additional leave is generally viewed as positive. Many participants, however, felt uncomfortable requesting cultural leave due to a general perception that non-Indigenous employees considered this provision afforded unfair or racially biased. This fuels stigmatisation of Indigenous employees, such that they are there to 'make up the numbers' simply to meet company Indigenous employment targets, rather than by merit:

'People always thought I got the job because I was Aboriginal. I always got cheap comments from people regarding that.'

A common response is to avoid censure and simply not request leave. Alternatively, where cultural leave is requested, frustration arises where employees find themselves repeatedly justifying their cultural obligations to their supervisor. One participant reported:

'I took cultural leave last year, but that's only because my brother had a ceremony for my two first cousins, and I had to be there for it. But I missed lots of funerals though. I wanted to go, but I felt I couldn't.'

About half of the supervisors interviewed in the study demonstrated appreciation of the obligations, and the remaining had very limited knowledge. When asked about the topic, one supervisor responded:

'We don't get taught any of that. I've just heard it now. There's nothing to say that these things might be happening, or that these things are expected to happen. We took on Indigenous people on knowing that we have to fulfil these duties... letting us leaders know that's what to expect, increasing that awareness, and not looking down on people who have to participate [in cultural business].'

Only those supervisors who had completed a tailored course entitled 'Leading Aboriginal People' recognised that cultural difference informed employee behaviours. Those who had not completed the training, or had limited experience working with Indigenous people, expressed the view that caution was required *not* to positively discriminate. While many of the supervisors were supportive of increasing Indigenous employment, many also said that they were pressed for time, and were managing multiple business processes. One supervisor suggested that a stigma exists around employing Indigenous people because of the time needed to invest in some of those employees.

There are also challenges associated with cultural responsibilities when employees are rostered off from work, such as the obligations to accept family to stay in your home or share wages with extended family:

'When the wife's family comes to town and wants to visit, they will just turn up at the house and then all of a sudden you have an overcrowded house and you have to look after them.'

'When you get back [from the mine site], everybody will know. You know, everybody asks you for money, like we've got big banks. You feel bad saying, 'No''.

A key management response to address negativity amongst the broader workforce is a requirement that all Rio Tinto employees attend Indigenous cultural awareness training. However, such training is not delivered on a consistent or systematic basis, leading to questions over its content and effectiveness (Parmenter and Trigger 2018). This issue is given more attention in the discussion section of this paper. Rio Tinto also offer a more targeted training tailored for supervisors of Indigenous employees, albeit on a non-mandatory basis.

5.2. Culturally appropriate support mechanisms

As indicated above, the company employment data shows voluntary turnover is much higher for Indigenous employees within the first year (17% compared to non-Indigenous employees, 8%). This emphasises the importance of a positive 'on-boarding' experience to help new recruits settle into their roles and work environment. This is of particular relevance for Indigenous employees who entered the workforce via Rio Tinto's Aboriginal Training and Support Program. Many of these individuals are young people from disadvantaged remote communities. For many also, it is their first substantive experience in mainstream employment. Many commented that these Indigenous employees struggled to adjust to the realities of mining employment and FIFO life. One participant said:

'For a lot of our mob when you think about their background, going into a job, they may have not held a job before going into mining and all of a sudden having to work 12-hour shifts. I think there needs to be a slow progression.'

The main support mechanism and retention strategy is the system of fourteen ISOs (Indigenous Support Officers) operating across all Pilbara operations. Participants spoke very positively about the support provided by ISOs, although resourcing of the roles was questioned, as ISOs are asked to do 'all things Indigenous'. Responses from participants include:

'They catch up with me quite a lot. If you don't seek them out, they come and talk to you. You can bring something up that might be an issue. So, the regular catch ups are worthwhile.'

'So supervisors, if they are unsure of that [being the veracity of a cultural leave request], they can ring up [the ISO] and say 'X' is gone on walkabout, apparently on law business, then they can confirm that law business has started, the ISO is the bridge in between.'

'Leaders tend to leave a lot of those difficult or culturally sensitive conversations to the ISOs.'

Further, in cases where the ISO is connected to an employee's family, the responsibilities extend beyond that in the job description. It is important to note that the ISOs themselves identify as Indigenous and therefore confront the same issues as those outlined for other Indigenous employees.

Other company-sponsored mechanisms for support include the company's Employee Assistance Program. This program is a whole-of-workforce program, which does not have an Indigenous-specific component. Participants who accessed this program reported limited utility. For example, one participant described the program as 'too clinical'. Many others said that they were not comfortable discussing close personal issues with a stranger. The absence of appropriate mechanisms to address an individual predicament is more likely to lead an Indigenous employee to exit the business, as one participant explained:

'For Aboriginal people, they're not likely to bring up a problem, they will just walk away, not even talk about it. They will let their feet do the talking.'

A strong level of informal peer-to-peer support was evident at all three operations visited in this study. Participants drew considerable comfort from working with fellow Indigenous employees. This was particularly the case where workers originate from the same locales but also extended to other Indigenous colleagues. The Indigenous crews spoke of being 'like family' to one another. The witty back and forth banter, incorporating shared but distinct culturally based terms, clearly lifts spirits. The level of peer support is further enhanced where Indigenous employees have partners and immediate family who also work at the same operation. Not only does the presence of other Indigenous employees create a supportive network on site, but it also enables an Indigenous employee that comes from the same community to essentially 'vouch' for an employee, avoiding any accusations of infidelity by partners of that employee. Jealousy from partners was also a challenge for former employees at Rio Tinto's Argyle Diamond Mine (Sarker and Bobongie 2007). It is likely that a significant cohort of Indigenous employees at a particular operation will act as a 'drawcard' for other Indigenous people to seek employment at that site.

5.3. Access to professional development opportunities

Despite the existence of special measures for positive discrimination permitted in relevant legislation, coupled with agreements with Indigenous landowners to increase Indigenous employment, the majority (79%) of Indigenous employees occupy entry-level positions. No Indigenous people were found in management positions and few in supervisory or superintendent roles. The overrepresentation of Indigenous people in entry-level roles reflects the pattern of Indigenous employment in the mining industry Australia-wide, as well as in Canada (Canadian Minerals Sector 2016). This raises issues worthy of further research, as these roles may be displaced as the mining industry increasingly adopts automation and remote systems, which are rarely based in regional areas and demand a different skill set (Holcombe and Kemp 2019).

It is therefore not surprising that limited access to development opportunities was a key reason offered by participants as negatively impacting retention. The opportunities sought can be quite modest, such as attending courses, gaining additional qualifications (or 'tickets') to operate mobile equipment such as dozers or loaders. The feeling of exclusion is exacerbated where non-Indigenous employees, who they perceive as holding less merit in terms of duration of service or lesser experience, are promoted ahead of them. One participant said:

'It's just funny how you've got somebody [an Indigenous employee] who's been here 13 years, that's been in those skills, and yet you've got other people stepping in that have got none.'

Employees did not necessarily frame this in terms of racism, but highlighted the function of cultural difference. For instance, Indigenous employees were considered less likely than non-Indigenous employees to 'speak up' or be forcefully repetitive about personal advancement with a superior:

'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"."

Humility was perceived as a core cultural value amongst Indigenous employees, which may hinder those requesting promotions. This has also been found at Red Dog Mine in Alaska, where Indigenous employees are not culturally accustomed to self-promotion (Haley and Fisher 2014). Another example demonstrates the lack of cultural awareness on the part of a supervisor, who interpreted visual avoidance and silent behaviour negatively:

'One leader said he didn't select a local [Indigenous] woman because she didn't speak up in the meeting or look him in the eye at 'start-up' meetings'.

It is likely that this woman was in fact behaving in a respectful way, according to her cultural norms. It was also perceived that supervisors, which are mostly non-Indigenous, often favour those who are more adept at cultivating the attention of their supervisor for promotion, who tend to be non-Indigenous:

'There is a lot of nepotism out on site, giving their mates jobs. You're not going to get anywhere unless you're in that [inner] group'.

Further, one supervisor suggested that negative stereotypes of Indigenous employees exist where some supervisors perceive Indigenous employees to take more days off and require higher degrees of support and time from their leader. The consequence of such attitudes serves to hinder an individual's career progression. On the contrary, for those who reported receiving adequate professional advancement, the impetus lay with the concerted efforts of a highly motivated direct supervisor to support those Indigenous employees, as opposed to positive discrimination measures aimed at addressing Indigenous disadvantage. This highlights the need for a management system that prompts and monitors career progression pathways for Indigenous employees, rather than rely on the efforts of individual supervisors.

6. Discussion

This study identified three key factors important for Indigenous employee retention in the Australian mining industry: 1) a culturally competent non-Indigenous workforce; 2) culturally appropriate support mechanisms; and 3) access to professional development opportunities. These interrelated factors span three respective zones of interactions, i.e. the Indigenous employee's interactions with the broader workforce; accessing culturally appropriate support and mentoring, and employee-supervisor relationship. The study suggests that a negatively reinforcing cycle may exist where a poor employee-supervisor relationship and a lack of professional development reduces enthusiasm amongst Indigenous employees. This decreased enthusiasm negatively affects work performance, which in turn reduces the employee's opportunities for advancement. Strategies to improve Indigenous retention, therefore, need to counter the possibility of factors compounding and aim to break

such a cycle. This would include providing a culturally safe workplace for the Indigenous workforce, as well as addressing career progression.

A culturally safe workplace as been defined as 'an environment that is spiritually, socially and emotionally safe, as well as physically safe for people; where there is no assault challenge or denial of their identity, of who they are and what they need' (Eckermann et al., 1994 cited in; Williams 1999:213). Previous research in Western Australia, the location of this study, indicates that prejudice against Indigenous people is commonplace (Walker 1994; Pedersen et al., 2000). Pervasive levels of racism within society will naturally permeate into organisations. It is not surprising then, that Indigenous employees at mining operations may experience commensurate levels of prejudice. Long-term employees (8 years and over) in this study, commented that instances of racism had decreased over time, but remain in less overt forms.

A typical response to reducing prejudice amongst the non-Indigenous workforce has been to implement Indigenous cultural training for mine employees. This type of training has become a common feature of workplace inductions in the Australian mining industry. 'Cultural awareness' or 'Cross-cultural awareness' training, as it is typically referred to, is typically delivered via a one-day workshop. Specialist companies, Indigenous community relations practitioners, or Indigenous landowners provide the training. The training aims to foster good relationships between the company and Indigenous landowners, and engender positive Indigenous employment outcomes. The assumption underlying the training is that educating the non-Indigenous workforce about 'Indigenous culture', will result in improved relationships between Indigenous and non-Indigenous employees. However, many have argued that short training programs focused on general awareness of 'other' cultures will not produce change (Dean 2001; Fredericks 2008; Young 1999). Training programs have been criticised for reinforcing essentialist racial identities and focusing on individual change rather than organisational or systemic change (Downing and Kowal 2011; Kowal et al., 2013). In order for the any of the cultural training to be effective in changing attitudes and influencing positive behaviour amongst the non-Indigenous workforce, the content and delivery requires careful consideration to avoid unintended negative consequences (Parmenter and Trigger 2018). For example, any content that invoke feelings of guilt amongst non-Indigenous participants for the past (and present) mistreatment of Indigenous people in Australia, may serve to deepen rather than reduce prejudice (Kowal et al., 2013; Pearson 2009).

Evidence suggests that the Australian mining industry may be lagging behind the health sector with respect to leading practice in Indigenous cultural training (Parmenter and Trigger 2018). The 'cultural awareness' training model implemented at mine sites does not typically include any self-reflection on participants own culture. The 'cultural safety' model of Indigenous cultural training is currently the preferred model for providing Indigenous cultural training to health professionals. This model moves away from teaching 'Indigenous culture' to requiring participants to reflect on their own culture (Downing et al., 2011). This type of reflexive training has also been promoted in 'anti-racism' training amongst non-Indigenous people in Indigenous affairs in Australia (Kowal et al., 2013; Franklin et al., 2014) and more recently, Australian Universities (Fredericks and Bargallie 2020). The three-day program focuses on 'identity formation, knowledge production and cultural recognition' (Franklin et al., 2014: 23), enabling participants to foster reflection and acceptance of the disjunction between their own racialized feelings and internalised anti-racist ideals (Kowal et al., 2013 cited in Franklin et al., 2014). Cultural training that is based on a cultural safety model is arguably more likely to challenge the deeply held notions of fairness amongst the non-Indigenous workforce identified in this study and is likely to have a very positive impact on culturally safety for Indigenous employees.

This study has also identified the need for specialised training of supervisors of Indigenous employees, who require a set of competencies that promote effective cross-cultural interactions, mutual understanding and positive relationships. This was also identified in a study at another

Rio Tinto mining operation at Weipa in north Queensland, where non-Indigenous crew leaders experienced difficulties in balancing notions of fairness, company policies and a need to respond to the specific circumstance of individual Indigenous employees due to a lack of knowledge and experience in working with Indigenous people (Arbelaez-Ruiz 2010:17). In addition, some companies, including Rio Tinto at some sites, support intensive programs reserved for senior management based around being hosted 'on country' by Indigenous landowners (Tiplady and Barclay 2007).

Another industry response to improve Indigenous retention has been the provision of Indigenous mentors on site (Tiplady and Barclay 2007). Research at other mine locations has found Indigenous mentoring can reduce absenteeism in both Australia and internationally (Burgess and Dyer 2009; Haley and Fisher 2014). Study participants highly valued the support they received from site-based ISOs fulfilling this role. This support is especially important during the first year of employment where Indigenous turnover is more than double that of non-Indigenous. The ISO performs a multi-faceted role, requiring a diverse skillset. They provide general guidance and support and individual case management to Indigenous employees, through to building awareness and engaging supervisors to enhance interactions with their Indigenous workers. They also network and champion business strategies across the business including management. Adequate resourcing is critical for such roles, as is managing caseload size to avoid overloading the mentor. Mentors require support to manage multiple and complex issues that arise, such as methods for prioritising demand and active referrals for employees in acute need, for example, those experiencing poor mental health.

This study, and others (Clifford 2009; CTWD 2018), has identified poor mental health as a major issue for FIFO workers. While most mining companies appear to have an on-site employee assistance program for such concerns, it is not clear if any programs are specifically tailored for Indigenous employees. Indigenous participants in this study acknowledged the support program offered by the company, but were not always comfortable with its mainstream approach. Research has shown that Indigenous people want support from Indigenous people as part of their health care (see examples from Lai et al., 2018). A culturally-safe option would ensure Indigenous employees have access to an Indigenous health professional, or suitably trained non-Indigenous health professional.

Relationships with other Indigenous employees were also a source of great support for participants in this study. Previous research indicates that creating a 'critical mass' of Indigenous employees on site may lead to better job satisfaction amongst Indigenous employees. For example, at Red Dog mine in Alaska, crews who comprise a high proportion of Indigenous employees have lower turnover (Haley and Fisher 2014:25). Reaching the necessary critical mass, however, will be remain constrained by size of the regional skilled Indigenous labour pool in these remote regions. The consequence of the limited skilled labour pool in the Pilbara region means that skilled Indigenous employees can easily move to other resource companies in the region, many of whom are actively targeting Indigenous employees to meet their own commitments to increase Indigenous employment. Rio Tinto operates alongside several other large-scale resource developments in the Pilbara region, including Woodside and Chevron, both of which are engaged in gas extraction and processing, iron ore miner Fortescue Metals Group (FMG), and Rio Tinto's major iron ore competitor, BHP. FMG, for example, report high levels of Indigenous representation in its workforce at 15.1% (FMG, 2019) and offer highly attractive FIFO from regional centres accompanied by housing for its Indigenous employees. This makes it relatively easy for skilled Indigenous employees to be drawn to other companies where they are not satisfied in their current position. As was the case in this study, all former employees who participated in this study remained working in the mining industry, for other companies in the Pilbara region. This appears to be the case in Canada as well, where most skilled

¹⁶ This figure includes contractors.

Cree and Inuit are already active in the labour market (Caron et al., 2019).

Employing Indigenous people who are already job-experienced, rather than investing in building a regionally-based workforce, is a longstanding critique of the mining industry (Lenegan, 2009). As previously indicated, there are large educational disparities between Indigenous and non-Indigenous populations in remote Australia. This highlights the importance of companies investing in programs that aim to increase the Indigenous labour pool, such as 'work-ready' programs training that guarantees employment at a mine, as well as the development of transferrable skills (Sarker and Bobongie 2007). These programs typically introduce the realities of mine life, hone general life skills such as financial literacy and healthy lifestyles, as well as provide introductory technical training in preparation for jobs in industry (Western Australian Government 2016). Several mining companies in Australia have invested in such programs over the past two decades. This is of particular importance in remote regions, where the Indigenous population remains significantly disadvantaged relative to the broader population and continues to grow much faster than the non-Indigenous population. In the Pilbara region there is an urgent need to focus on those of early working age who are unemployed or marginally attached to the labour force Taylor (2018:143). Until the skilled labour pool grows in the region, retention is likely to remain an issue for experienced Indigenous employees.

Finally, it is clear from the analysis of employment data in this study that the success of measures to improve Indigenous employment outcomes ultimately rely on a management system dedicated to maintaining a culturally safe workplace. The ability to track Indigenous employment outcomes (and identify improvements) starts with the availability of accurate and relevant Indigenous employment data. It is critical that human resource systems provide for the collection of this data, which is systematically monitored by executive management. This includes the collection of diversity data at the point of hire (with consent); through to exit interview data. For instance, data such as prior work experience (or lack thereof) collected at recruitment can enable companies to measure their contribution to increasing the labour pool in remote Indigenous communities. An effective management system will also ensure that Indigenous employees are offered development options that are consistent with the individual's career aspirations and progression is monitored. Further, routine evaluation of retention initiatives is required. For example, maintaining data on whole-of-workforce participation in Indigenous cultural awareness training, gathering feedback from participants, and addressing any areas that can be improved.

7. Conclusion

Major mining companies in Australia have successfully increased Indigenous employment within the sector over the last 15 years. As this case study demonstrates, however, more work is required to keep pace with the growing Indigenous population in remote regions. Equally important to the continuing rates of Indigenous recruitment, is the implementation of adequate retention strategies. This paper provides insights into key interrelated factors that support the retention of the Indigenous workforce. A culturally safe working environment is considered one where the non-Indigenous workforce have an understanding of and respect for cultural obligations and the importance Indigenous people place toward their responsibilities to family. This is especially important for direct supervisors of Indigenous employees. In addition, culturally appropriate employee support was critical to retention, especially during the first year of employment.

Despite significant industry progress in employing Indigenous people, it is concerning that the majority of the Indigenous workforce remain in entry-level positions, as these are at risk of diminishing as the industry moves toward greater automation and remotely controlled operations. Access to development opportunities and career pathways

requires greater attention by industry as a key strategy to increase retentions rates. The importance of increasing Indigenous retention highlights the need for a strategic approach supported by a dedicated management system that collects and reports accurate Indigenous employment data. Despite recent controversies in the Pilbara, Indigenous employment remains an important focal point for company-Indigenous relations.

Declaration of Competing Interest

The authors declare there are no conflicts of interest.

Acknowledgements

This research was enabled by Rio Tinto financial support and facilitating access to their operations. The University of Queensland provided in-kind support to complete the analysis and write this article. The authors wish to thank employees of three Rio Tinto operations in the Pilbara region and at the company's head office in Perth for participating. There were a number of key Rio Tinto personnel who supported this research, including organising the site visit logistics. We are grateful to Linda Dawson, Renae Rutherford, Jason Masters, Lesley Embleton, Rheannan Burke, Dewayne Ball, Jillian Harris, Cindy Burt and Charlotte Diaz. Special thanks to Indigenous Support Officers Peter Bellottie and Allison Heinritz who assisted our fieldwork and generously gave their time and opinions. Thanks also to Deanna Kemp, Sarah Holcombe and Julia Keenan who provided feedback on early drafts, and Jill Harris for assisting with graphics.

References

- ABS, 2016. Census of Population and Housing Basic Community Profile (Catalogue No 3238.0.55.00). Australian Bureau of Statistics, Canberra.
- Altman, J., 2001. Sustainable Development Options On Aboriginal land: The hybrid Economy in the Twenty-First century, CAEPR Discussion Paper No. 226. Centre for Aboriginal Economic Policy Research, The Australian National University, Canberra.
- Altman, J., Martin, D. (Eds.), 2009. Power, Culture and Economy: Indigenous Australians and Mining, Research Monograph No. 30, CAEPR. The Australian National University E Press, Canberra.
- Arbelaez-Ruiz, D., 2010. Mining Supervisors' experiences in working with Indigenous employees: Perspectives on leadership, training, development and promotion. Thesis submitted to the School of Philosophy, Anthropology and Social Inquiry, University of Melbourne.
- Austin-Broos, D., 2003. Places, practices, and things: the articulation of Arrernte kinship with welfare and work. Am Ethnol 30 (1), 118–135.
- Barclay, M.A., Parmenter, J., Barnes, R., 2014. Guide to Good Practices in Indigenous Employment, Training & Enterprise Development. Report to BG Group, CSRM.
- Barker, T. and Brereton, D., 2004. Aboriginal Employment at Century Mine. CSRM Research Paper no.3 www.csrm.uq.edu.au/publications/centre-for-social-respons ibility-in-mining-research-paper-no-3-aboriginal-employment-at-century-mine.
- Barker, T., 2006. Employment outcomes for Aboriginal people: An exploration of experiences and challenges in the Australian minerals industry Research Paper no 6, Centre for Social Responsibility in Mining, The University of Queensland.
- Barnes, R., 2013. Building an implementation framework for agreements with Aboriginal landowners: a case study of The Granites mine. Thesis submitted for the degree of Master of Philosophy, University of Queensland.
- Beach, R., Brereton, D., Cliff, D., 2003. Workforce Turnover in FIFO Mining Operations in Australia: An Exploratory Study. Centre for Social Responsibility in Mining, University of Queensland, Brisbane.
- Biddle, N. and Lahn, J., 2016. Understanding Aboriginal and Torres Strait Islander employee decisions to exit the Australian Public Service CAEPR Working Paper no. 110/2016 Available online at: openresearch-repository.anu.edu.au/bitstream/1885/ 140514/1/CAEPR-WP110_2016pdf_0.pdf.
- Brereton, D., Parmenter, J., 2008. Indigenous employment in the Australian mining industry. J. Energy Nat. Resour. Law 26 (1), 66–78.
- Burgess, J., Dyer, S., 2009. Workplace mentoring for indigenous Australians: a case study. Equal Oppor. Int. 28 (6), 465–485.
- Canadian Minerals Sector Employment Information Bulletin 2016. www.nrcan.gc.ca/mining-materials/publications/16739.
- Caron, J., Asselin, H., Beaudoin, J.M., 2019. Attitudes and behaviors of mining sector employers towards the Indigenous workforce. Resour. Policy 61, 108–117. https:// doi.org/10.1016/j.resourpol.2019.02.001.
- Caron, J., Asselin, H., Beaudoin, J.-M., 2020a. Perception of Indigenous employees towards the strategies deployed by mining employers to promote their recruitment, integration and retention. Resour. Policy 68, 101793.
- Caron, J., Asselin, H., 2020b. Evaluation of Indigenous employability programs in the Canadian mining industry. Extract.Ind.Soc. In Press.

- Clifford, S., 2009. The effects of Fly-in/Fly-out commute arrangements and extended working hours on stress, lifestyle, relationship and health characteristics of Western Australian mining employees and their partners, PhD thesis, the University of Western Australia.
- Commonwealth of Australia 2020. Proof Committee Hansard Joint Standing Committee of Northern Australia Destruction of 46,000-year-old caves at the Juukan Gorge. Friday 7 August 2020 (uncorrected proof).
- Conde, M., Le Billon, P., 2017. Why do some communities resist mining projects while others do not. Extract. Ind. Soc. 4 (3), 681–697.
- K. Dennis K. Cross, T., Barzon., J., Isaacs, R., 1989. Towards a Culturally Competent System of Care: A Monograph On Effective Services For Minority Children Who are Severely Emotionally Disturbed [Online] CASSP Technical Assistance Center. Georgetown University Development Center, Washington, DC. Available from: htt p://www.mhsoac.ca.gov/meetings/docs/Meetings/2010/June/CLCC_Tab_4_Tow ards_Culturally_Competent_System.pdf [Accessed 12/10/20].
- CTWD Centre for Transformative Work Design 2018. Impact of FIFO work arrangements on the mental health and wellbeing of FIFO workers. www.mhc.wa.gov.au/media/2547/impact-of-fifo-work-arrangement-on-the-mental-health-and-wellbeing-of-fifo-workers-full-report.pdf (Accessed February 10 2019,).
- Davis, L., 1995. New Directions for CRA. March. Speech delivered at the Securities Institute of Australia, Sydney.
- Dean, R., 2001. The myth of cross-cultural competence. Fam. Soc. 82 (6), 623–630. Deroy, S., Schütze, H., 2019. Factors supporting retention of Aboriginal health and wellbeing staff in Aboriginal health services: a comprehensive review of the literature. Int. J. Equity Health 18, 70, 10.1186/s12939-019-0968-4.
- Downing, R., Kowal, E., 2011. A Postcolonial analysis of Indigenous cultural awareness training for health workers. Health Sociol. Rev. 20 (1), 5–15.
- Downing, R., Kowal, E., Paradies, Y., 2011. Indigenous cultural training for health workers in Australia. Int. J. Qual. Health Care 23 (3), 247–257.
- Eckermann, A., Dowd, T., Martin, M., et al., 1994. Binang Goonj: Bridging culrures in Aborigind health. University of New England, Armidale (NSW).
- Edmunds, M., 1989. They Get Heaps: A Study of Attitudes in Roebourne Western Australia. Aboriginal Studies Press, Canberra.
- Fogarty, W., Lovell, M., Langenberg, J., Heron, M.-.J., 2018. Deficit Discourse and Strengths-based Approaches: Changing the Narrative of Aboriginal and Torres Strait Islander Health and Wellbeing. The Lowitja Institute, Melbourne.
- Fortescue Metals Group Ltd 2019. Corporate Social Responsibility Report 2019.

 Available online: www.fmgl.com.au/docs/default-source/annual-reportingsuite/19
 63097.pdf.
- 63097.pdf.
 Franklin, H., Paradies, Y., Kowal, E., 2014. Critical Evaluation of a program to foster reflective antiracism. Int. J. Soc. Sci. Res. 2 (2), 20–46.
- Fredericks, B., 2008. The need to extend beyond the knowledge gained in cross –cultural awareness training. Aust.Indig. Educ. J. 37, 81–89.
- Fredericks, B., Bargallie, D., 2020. An Indigenous Australian Cultural Competence Course: talking Culture, Race and Power. In: Frawley, J., Russell, G., Sherwood, J. (Eds.), Cultural Competence and the Higher Education Sector. Springer, Singapore. https://doi.org/10.1007/978-981-15-5362-2_16.
- Haley, S., Fisher, D., 2014. Indigenous employment, training and retention: successes and challenges at Red Dog Mine. In: Gilberthorpe, E., Hilson, G. (Eds.), Natural Resource Extraction and Indigenous Livelihoods (pp. 11–35). Development challenges in an Era of Globalization. Routledge, New York.
- Harvey, B., 2002. New Competencies in Mining: rio Tinto's experience. In: Council of Mining and Metallurgical Congress. Cairns,Qld, 27-28 May 2002.
- Health Workforce Australia, 2011. Aboriginal & Torres Strait Islander Health Worker Project Interim Report. Available online. https://www.natsihwa.org.au/sites/default/files/atsihw-project-interim-report-20111017.pdf (Accessed on 4 August 2019).
- Holcombe, S., 2004. Early Indigenous Engagement With Mining in the Pilbara: Lessons from a Historical perspective, CAEPR Working Paper No24/2004. Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.
- Holcombe, S., Kemp, D., 2019. Indigenous Peoples and Mine Automation: an Issues Paper. In Resour. Policy 63, 468–472.
- Holcombe, S., Kemp, D., 2020. From pay-out to participation: indigenous mining employment as local development? Sustain. Dev. 2020, 1–14. https://doi.org/ 10.1002/sd.2063.
- Holtom, B., Mitchell, T., Lee, T., Eberly, M., 2008. Turnover and retention research: a glance at the past, a closer review of the present, and a venture into the future. Acad Manag Ann 2 (1), 231–274.
- Horsley, J., Prout, S., Tonts, M., Ali, S.H., 2015. Sustainable livelihoods and indicators for regional development in mining economies. Extract. Ind. Soc. 2 (2), 368–380.
- Kowal, E., Franklin, H., Paradies, Y., 2013. Reflexive antiracism: a novel approach to diversity training. Ethnicities 13 (3), 316–337.
- Lai, G.C., Taylor, E.V., Haigh, M.M., Thompson, S.C., 2018. Factors Affecting the Retention of Indigenous Australians in the Health Workforce: a Systematic Review. Int. J. Environ. Res. Public Health 15 (5), 914. https://doi.org/10.3390/ ijerph15050914. Published online 2018 May 4.
- Larkin, S., 2013. Race matters: indigenous employment in the Australian Public Service. PhD thesis, Queensland University of Technology.
- Langton, M., 2002. A New Deal? Indigenous development and the politics of recovery. Dr Charles Perkins AO Memorial Oration, University of Sydney, 4 October 2002.

- Langton, M., 2012. Boyer Lectures 2012: The Quiet Revolution: Indigenous people and the Resources Boom. Australian Broadcasting Corporation, Sydney.
- Langton, M., 2015. From Conflict to Cooperation: Transformations and Challenges in the Engagement between the Australian Minerals Industry and Australian Indigenous Peoples. Minerals Council of, Australia.
- Lenegan, C., 2009. The Minerals Sector and Indigenous Relations (address to minerals week 2005). Available online at: https://www.atns.net.au/atns/references/attach ments/lenegan.pdf (Accessed 9 May 2020).
- O'Faircheallaigh, C., 2006. Mining agreements and Indigenous economic development in Australia and Canada. J. Aborig. Econ. Dev 5 (1), 74–91.
- O'Faircheallaigh, C., 2010. Aboriginal-mining company contractual agreements in Australia and Canada: implications for political autonomy and community development. In Can. J. Dev. Stud. 30 (1–2), 69–86.
- O'Faircheallaigh, C., 2015. Negotiations in the Indigenous World: Aboriginal Peoples and the Extractive Industry in Australia and Canada. Routledge, New York and London
- Owen, J., Kemp, D., 2012. Assets, Capitals, and Resources: frameworks for Corporate Community Development in Mining. Bus. Soc. 51 (3), 382–408.
- Parmenter, J., 2011. Experiences of Indigenous women in the Australian mining industry. In: Lahiri-Dutt, K. (Ed.), Gendering the Field: Towards Sustainable Livelihoods for Mining Communities pp. 67-86. Asia-Pacific Environment Monograph no.6. Australian National University E Press, Canberra.
- Parmenter, J., Trigger, D., 2018. 'Indigenous cultural awareness training for mine employees: good intentions, complicated outcomes. Extr. Ind. Soc 5 (2), 363–370.
 Pearson, N., 2009. *Up from the Mission: Selected Writings*. Black Inc Books, Melbourne.
- Pedersen, A., Griffiths., B., Contos., N., Bishop, B., B and I. Walker, 2000. Attitudes toward Aboriginal Australians in City and Country Settings. In Australian Psychologist 35 (2), 109–117.
- Peterson, N., 1993. Demand sharing: reciprocity and the pressure for generosity among foragers. Am Anthropol 95 (4), 860–874.
- Peterson, N., 2005. What can the pre-colonial and frontier economies tell us about engagement with the real economy? Indigenous life projects and the conditions for development. In: Austin-Broos, D., Macdonald, G. (Eds.), Culture, Economy and Governance in Aboriginal Australia. Sydney University Press, Sydney, pp. 7–18.
- Peterson, N., Taylor, J., 2003. The modernising of the Indigenous domestic moral economy. Asia Pacific J. Anthropol. 4 (1–2), 105–122.
- Remplan 2020. 'Pilbara economic profile'. Available online: app.remplan.com.au/pilbararegion/economy/summary?state=WZPpFw0lPl7owpXCnE1dORtYh2hplq.
- Sarker, T., Bonbongie, G., 2007. Survey of aboriginal former employees and trainees of argyle Diamond mine. Centre for Social Responsibility in Mining www.csrm.uq.edu. au/docs/Argyle%20former%20employees%20final%20report.pdf.
- Scambary, B., 2007. My country, Mine country: Indigenous people, Mining and Development Contestation in Remote Australia. Australian National University, Canberra. Unpublished PhD thesis.
- Stevens, M., 1991, 'Showdown at Marandoo, Aust, Financ, Rev. 6 Dec.
- Susomrith, P., Brown, A.R., Scott, G.B., & Sitlington, H.B. 2013. Generational differences and Fly-In-FlyOut (FIFO) employee turnover. ro.ecu.edu.au/cgi/viewcontent.cgi? article=1245&context=ecuworks2013.
- Taylor, J., 2018. The RIC Report: change in Wellbeing indicators of Pilbara Aboriginal People 2001-2016. www.ricpilbara.com/wp-content/uploads/2019/02/ric-report_c. pdf.
- Tiplady, T., Barclay, M.A., 2007. Indigenous Employment in the Australian Minerals Industry. CSRM Report, Brisbane.
- Trigger, D., 2000. Aboriginal responses to mining in Australia: economic aspirations, cultural revival and the politics of indigenous protest. In: Schweitzer, Peter P., Biesele, Megan, Hitchcock, Robert K. (Eds.), Hunters and Gatherers in the Modern world: conflict, Resistance and Self-Determination. Berghahn Books, New York, USA, pp. 192–205.
- Trigger, D., 2005. Mining projects in remote Aboriginal Australia: sites for the articulation and contesting of economic and cultural futures. In: Austin-Broos, D., Macdonald, G. (Eds.), Culture, Economy and Governance in Aboriginal Australia. University of Sydney Press, Sydney, pp. 41–62.
- Walker, I., 1994. Attitudes to Minorities: survey Evidence of Western Australians' Attitudes to Aborigines, Asians, and Women. Aust. J. Psychol. 46 (3), 137–143.
- Watson, K., Young, J., Barnes, M., 2013. What constitutes 'support' for the role of the Aboriginal and Torres Strait Islander child health workforce? Aust. Health Rev. 37, 112–116.
- Western Australian Government. 2016. Chamber of Minerals and Energy (CME), Report Growing Aboriginal Participation Case Study BHP Billiton Iron Ore's Kworp Kooling Mining Traineeship Program (8-9).
- Williams, R., 1999. Cultural Safety what does it mean for our work practice? Aust N Z J Public Health 23 (2), 213.
- Wilson, J., 1980. The Pilbara Aboriginal social movement: an outline of its background and significance. In: Berndt, R., Berndt, C. (Eds.), Aborigines of the West: Their Past and Their Present. University of Western Australia Press, Perth.
- Young, S., 1999. Not because it's a bloody black issue! Problematics of cross cultural training. In: McKay, B. (Ed.), Unmasking whiteness: Race Relations and Reconciliation. Queensland Studies Centre University of Queensland Press, Brisbane, pp. 201–219.