



Charles Sturt
University



Tradeswomen in the Mining Industry: Living and working in regional and rural Australia



NEWCREST
MINING LIMITED
CADIA



Acknowledgements

Charles Sturt University acknowledges First Nations elders past and present from the lands where Charles Sturt University students and staff reside. In particular, we acknowledge the Wiradjuri, Ngunawal, Gundungarra, and Biripai peoples of Australia who are the traditional custodians of the land where the University's campuses are located.

This research was funded by Newcrest Mining's Cadia Valley Operations and Charles Sturt University.

We especially wish to thank Cadia for their collaboration, participation, and support of this project. The project was supported under the Cadia Cares program to focus on future sustainability of women in the mining industry. We also wish to thank the other organisations who distributed the survey across Australia – WIMDOI, the Australian Workers Union (AWU), Mining & Energy, A division of the Construction, Forestry, Maritime Mining & Energy Union (CFMMEU) and the 125 women who contributed to this research by completing the survey.

The data in this report draws on the unique perspectives of the women working in mining who have shared them. Participation in this project was voluntary and anonymous. No identifying information was collected. All quoted data is unaltered to reflect participant opinions.

Preferred citation

Bridges, D., Wulff, E., Kleinschafer, J., Krivokapic-skoko, B. & Bamberry, L. (2023). *Tradeswomen in the Mining Industry: Living and working in regional and rural Australia*. Charles Sturt University.

Charles Sturt University Research Master No. 0000103721

ISBN: 978-1-86-467438-5

Research team



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Executive summary

This research aims to understand the nexus between the mining industry, employment in regional and rural Australia, and the role the mining industry plays, or could play, in the advancement of regional and rural women's career opportunities. Of particular focus is the potential of the mining industry to provide opportunities for women to live and work in regional and rural Australia without the need to leave these areas to obtain training and employment opportunities in metropolitan areas.

The project investigates the problem of low numbers of women in skilled trade occupations in the mining industry and seeks to understand how the mining industry can attract more women into these roles in regional areas. The focus of the project is to support women to achieve opportunities to train and work in regional areas, to contribute to the vibrant sustainability of regional Australia, and to promote the business case for hiring women in the mining industry.

An online survey was designed to evaluate to what extent the mining industry provides opportunities for women to work in mining while staying in place in regional areas. The final survey included a total of 125 mining and skilled tradeswomen.

The results of the research are largely positive, indicating reasons to be optimistic about women's current and future inclusion in the mining industry in Australia and the subsequent influence this has on rural and regional prosperity. For instance, findings indicate that over 80% of the women we surveyed live in rural towns and regional centres (55.3% lived in a rural town and 26.6% in regional centres). Nearly three quarters (74.2%) were satisfied that they could live in locations that suited them whilst also working in their trade in the mining industry nearly two thirds (63.4%) were satisfied that they could live in locations that also suited their families. Findings also indicate that the mining industry is recruiting from the regions where they operate. In doing so, they are able to provide women with career opportunities whilst remaining in place in rural/regional Australia.

One of the most encouraging results include the influence of mining on women's financial prosperity with 80% of the survey participants reporting earning more than the average Australian full time female salary. Over 50% of women reported a take home pay of between \$1600-1999 per week. Women also identified financial remuneration and equal pay with men as being a positive factor in their employment in the qualitative section of the questionnaire.

Over one third of women said that they were able to achieve work life balance whilst working for the mining industry. Other opportunities cited as provided by the mining industry included: access to uniforms designed for women's bodies (36%); access to safe, clean, respectable toilets (34%); the ability to live and work in rural areas (33%); access to carer's leave (33%); access to safe, respectful change facilities (28%); and, a gender safe work site (28%).

Whilst these results are positive, around two thirds of the sample did not perceive the mining industry as providing them with the opportunities above. Therefore, these particular opportunities also need to be viewed as areas where the mining industry could make improvements. For instance, whilst 33% of respondents said they had access to carer's leave, only 18% said that they had access to paid/unpaid parental leave. Only 9% said they were able to access parent friendly rosters, only 6% had access to flexible work packages and only 4% had access to part time work. This is a salient finding because 41.6% of the women sampled were carers.

Also of concern is that very few women said that they had any access to on-the-job training, continuing education or job counselling. One in eight participants in this survey have never received on-the-job training, while around 60% rarely or sometimes received some form of on-the-job training. Moreover, half of the participants have never had an opportunity for continuing education and a further 43% rarely or sometimes benefited from continuing education. Job counselling was rarely or never offered to over half of the respondents when they were considering leaving the company. Whilst 28% of women said that their workplace was gender safe, it is a salient finding that 72% of respondents did not indicate this as an opportunity provided by the mining industry.

Recommendations from the research fall into five categories designed from the findings:

1. Gender safe worksites.
2. On-the-job training, continuing education and job counselling.
3. Initiatives and policies for family friendly and flexible work are made available and accessible i.e., paid/unpaid parental leave, parent friendly rosters, flexible work packages and part time work.
4. Access to safe, clean, respectable toilets and safe, respectful change facilities.
5. Access to work uniforms designed for women's bodies.

Contents page

| | |
|---|-----------|
| Acknowledgements | 3 |
| Research team | 4 |
| Executive summary | 5 |
| 1 Introduction | 9 |
| 2 Mining, the trades, and women’s employment in regional Australia | 11 |
| 2.1 Gender and rural employment | 12 |
| 2.2 Adding capacity to the mining industry: women as a resource | 14 |
| 2.3 The value of inclusion and opportunities for women in the industry | 15 |
| 2.4 Barriers and challenges: from attraction to attrition..... | 16 |
| 2.5 Conclusion | 19 |
| 3 Research design and data analysis | 21 |
| 3.1 Introduction..... | 21 |
| 3.2 Data analysis..... | 22 |
| 3.3 Benefits | 39 |
| 3.4 Barriers | 42 |
| 4 Concluding comments and policy recommendations | 47 |
| 4.1 Introduction | 47 |
| 4.2 Findings | 48 |
| 4.3 Recommendations | 51 |
| References | 56 |
| Appendices | 59 |

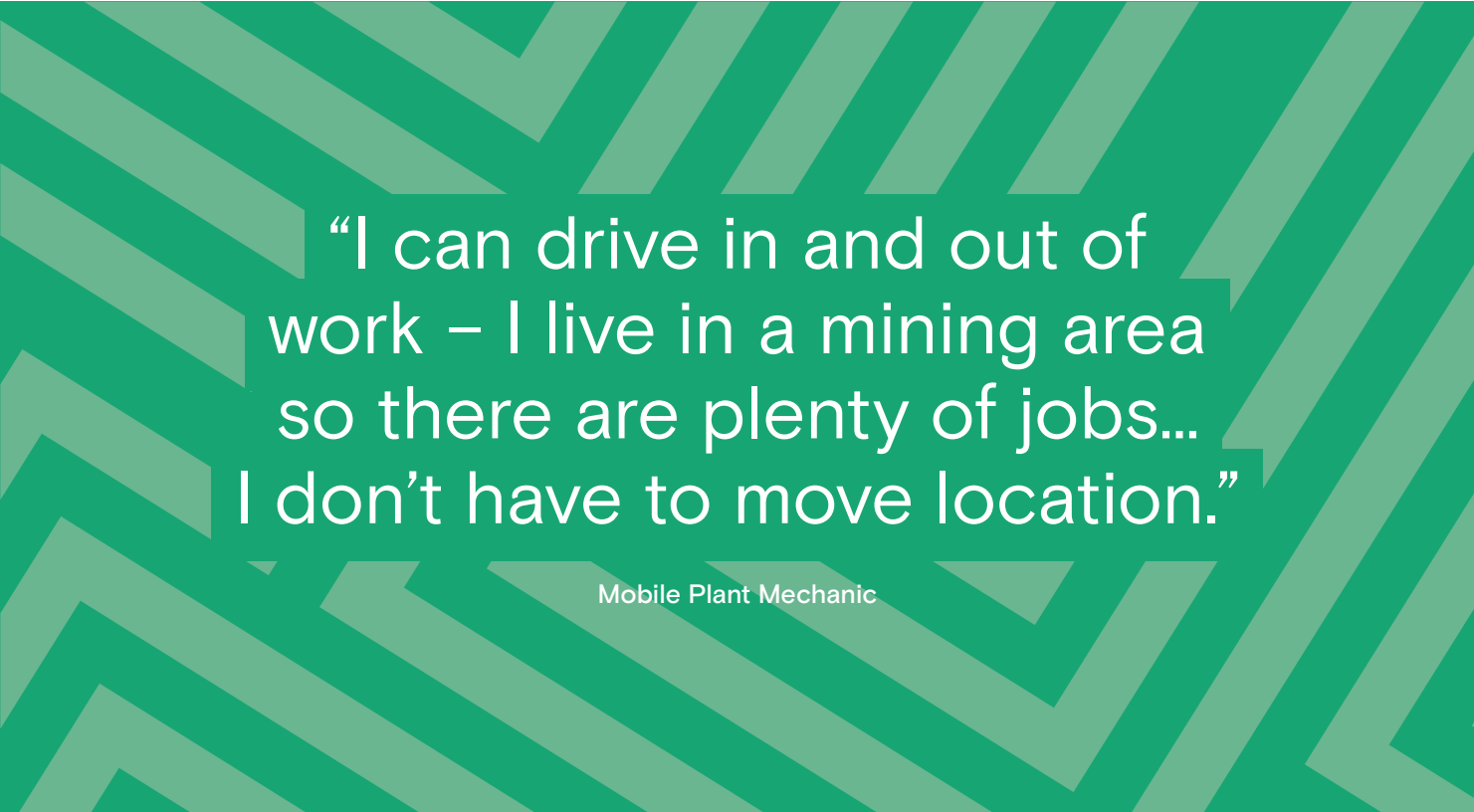


1 Introduction

This project aims to explore the commitment of the mining industry to employ women, and its ability to create inclusive and diverse workforces in regional, rural, and remote areas of Australia. The project's primary focus explores how mining as an industry can contribute meaningfully to women living and working in rural and regional locations. The mining industry has shown a commitment to employing women and employs extensively in regional, rural and remote areas. The report herein explores this commitment and assesses the impact of mining on the employment of women in regional, rural and remote areas with a particular focus on trade occupations in the mining industry.


Understanding more about how the mining industry can provide opportunities for women ensures a threefold contribution: (1) to rural and regional areas, their vibrancy and prosperity; (2) to women's equity and success; and (3) for the mining industry where the creation of more inclusive and diverse workforces have been shown to improve efficiency, productivity and retention (Kincaid & Smith, 2021; WGEA 2018).

Most research in the field of women entering work that has previously been male-dominated has concentrated on the barriers to attracting and retaining women in mining (Bailey-Kruger, 2012). This report will consider the importance of these barriers, however, the focus here is also on the opportunities the mining industry can offer women in the Australian workforce, particularly in rural and regional areas and how mining as an industry can contribute to more women living and working in rural and regional areas.



“I can drive in and out of work – I live in a mining area so there are plenty of jobs... I don't have to move location.”

Mobile Plant Mechanic



“It is great to see so many women heavy machinery operators now in the mines. There weren’t many when I first started 26 years ago.”

Heavy machinery operator

2 Mining, the trades, and women's employment in regional Australia

Women are a talent pool identified by the Australian government and industry as an untapped resource in the mining industry (Bryant & King, 2007; Eveline & Booth, 2002; Kljajevic, 2015; Mayes & Pini 2014). Some overseas studies, such as “Ramp-UP” a study on the status of women in Canada’s mining and exploration sector (Shaw, 2011, p. 11) confirm that “women are an experienced work force prepared for long-term engagement and have a willingness to participate fully in the broad spectrum of employment opportunities, from the office to the laboratory, to heavy equipment operators and remote exploration camp”. However, global estimations of women in the mining workforce range from 7 to 18 per cent (Kincaid & Smith, 2021, p. 2). Mining is a significantly male dominated industry – women counted in gender ratio tallying includes feminised work such as administration and catering. Therefore, percentages of women in engineering, geology, project management and the skilled and mining trades are much smaller than the overall tally denotes. This is true of the Australian mining workforce as well. A 2022 report on workplace gender equality shows that women made up just 15 per cent of employees in mining (WEGA, 2022, p. 6).

These figures also reflect few numbers of women working in skilled trade occupations in mining¹ in Australia. The industries of construction and mining represent some of the most gender-segregated occupations in the Western World. It is estimated, for instance, that only 1-3% of workers in the skilled trades in Australia are women.

Due to skills shortages in many trade occupations state governments in Australia are engaged in trade pathway programs designed to support apprenticeship places for women. The NSW Government, for example, has committed to increasing the number of women working in non-traditional trades by improving access and opportunities in the trades (Women NSW, 2022). However, this goal is likely to languish if more is not understood about women’s lived experience and the role of industry in managing the attraction, recruitment and retention of women.

1 In mining, these non-traditional trades consist of electro-technology, automotive, construction and mining labours, steel construction workers and other construction and mining labours (ABS 2020).

2.1 Gender and rural employment

The outmigration of women from regional and rural Australia has been consistently high over decades. Research has identified that young women have a significantly higher rate of outmigration than young men because they perceive the regions as offering them very few training or employment opportunities (Alston, 2004; Argent and Walmsley, 2008; Boyd, 2022). Literature in the field reveals that the mining industry can potentially offer women in the Australian rural workforce opportunities (Bryant & King, 2007) whilst at the same time contributing to the ongoing sustainability of these communities. Yet, living in a rural area has been identified as creating multiple barriers to women's employment because the industries that employ most workers in these areas are male dominated (agriculture, mining, and forestry) and are viewed primarily as men's work (Alston, 2012). Gender stereotypes about work roles combined with entrenched gender ideology contribute to gender inequality in these industries and in rural-regional areas. Furthermore, traditional rural masculinities are known to be conservative and to assert superiority over women (and men that do not conform to the masculine stereotypes of aggression, risk-taking, and dominance) (Hogg & Carrington, 2006; Pease, 2010).



Bryant & Jaworski (2011) argue that the industries important to rural economies are influenced by gendered politics “of place”. The authors contend that this inequality occurs because rural and regional ‘places’ have “historical, political, economic and social conditions that give rise to norms and practices that contribute to social meanings attributed to gender and class” (p. 1346). In this case, men are perceived as more suitable for working in rural industries than are women.

This is a problem for women’s employment but also for the sustainability of regional and rural Australia. Outmigration of residents has the potential to weaken communities and compromise regional development. Indeed, as Jenkins et al (2019, p. 278) note, “Many local government and regional development organizations have recognized the importance of addressing skill shortages and bringing skilled tradespeople into regions in order to drive economic growth”. This signifies an acceptance that residents, especially the young, will leave rural-regional towns to gain skills and employment opportunities in metropolitan areas. Bryant & King (2007, p. 1) conducted a national study that included nineteen mining sites and represented a range of organisational contexts. They found that organisations need to collate empirical evidence about diversity and inclusion “to identify industry and community specific impacts of labour shortages, barriers to recruiting and retention and turnover rates”.

Significant skills shortages in regional areas, the gendered nature of the work, and women’s outmigration therefore have not always been well connected and contextualised in attempts to address problems of regional-rural employment. Indeed, Bryant & Jaworski’s (2011) study showed how assumptions about gender and about place influence how industries and organizations understand and respond to skills shortages. Furthermore, Bryant and King (2007, p. 70) warn against the under-utilisation of an available workforce within the community, particularly overlooking women and Indigenous workers.

Whilst there is a lack of research in the field about the role of industry itself in providing women opportunities to train and work in regional-rural areas, where there are innovative strategies to employ and retain women, the mining industry is at the forefront. “A stated goal of the mining, as well as oil and gas industries, [is] to promote ‘local’ hiring or hiring and promoting people from regions adjacent to the mine site” (Kincaid & Smith, 2021). The industry has also identified the importance of employing a diverse workforce and has been instigating flexible work policies and other initiatives to attract and retain women. This means more diversity, equity and inclusion measures incorporated to facilitate the integration of women within the workforce as well as measures to employ from the areas where mines are operational. This allows women to stay in areas where regional decline is a significant issue (Jenkins et al., 2019).

How regions can grow their own skilled workers through recruitment, training and workforce development opportunities is a strategy that has a myriad of benefits for the regions and for those who want to live and work in them. This requires an industry focus on the attraction and recruitment of young people and workers who are reskilling.

2.2 Adding capacity to the mining industry: women as a resource

Studies about the benefit of employing a diverse workforce are compelling regarding the advantages of diversity impacting favourably on an organisation's performance, resilience and economic remuneration (Kincaid & Smith, 2021). Inclusive and diverse workforces have been found to improve a myriad of factors such as efficiency, productivity, creativity and employee attraction, engagement and retention (Kincaid & Smith, 2021; WGEA 2018). Kincaid & Smith (2021) recommend increasing diversity and inclusion efforts in the mining industry. Doing so can facilitate innovation and efficiency, thereby, addressing labour shortages.


The mining industry is focusing on recruiting women in their ranks. Due to skills shortages in mining occupations and professions the employment of women as a talent pool is vital. A shortage of women in professional occupations such as engineers, geologists and surveyors and in occupations in the skilled trades has been identified as a concern for some time (NSW Women in Mining, 2012). Generally, the literature recommends a suite of strategies and initiatives to increase women's employment.

Recruitment strategies used by mining companies include career expos for high school and tertiary level students and promotion of career options to career advisors; providing scholarships to apprentices and trainees; graduate programs; and conducting on-site tours. Retention strategies include accommodation allowances and flexible work policies (Bryant and King, 2007, p. xiii).

Awards programs have also been designed to encourage and reward women who work in mining. The Australasian Institute of Mining and Metallurgy (AusIMM) hosts a Women in Mining Network with branches in New South Wales, Tasmania, Victoria and South Australia. Each network seeks to advocate for women in mining, by promoting diversity and inclusion. They provide mentoring and career development programs and opportunities for women and work with companies who are keen to successfully recruit and retain women (<https://www.ausimm.com/communities/networks/women-in-mining-network/>). The Minerals Council of Australia hosts the Women in Resources National Awards and NSW Mining hosts the NSW Women in Mining Awards with awards for individual women and companies whose efforts notable. For example, in 2020 Renata Roberts, The Bloomfield Group's Chief Corporate Services Officer won the "Exceptional Woman" Award for her leadership. In 2019 Newcrest Mining's Cadia Valley Operations won an award for its focus on recruiting women from local areas and for flexible work initiatives for women returning to the workforce (NSW Mining, <https://www.nswmining.com.au/women-in-mining>).

2.3 The value of inclusion and opportunities for women in the industry

There are substantial benefits for women when employed in mining. These include increased career prospects and a level of financial remuneration not reaped in feminised industries. Bailey-Kruger's study (2012) identified several factors that enabled women to stay in the industry. These included "a love of the bush, opportunities to work both indoors and out, science driven work environments, an opportunity to make an impact on society, career development and other job-related factors such as acquiring skills and financial incentives" (p. 21). These are significant points of attraction for women. Many women want to work outdoors and/or in rural areas. Many women want opportunities to perform manual labour and have a physical job that liberates from desk work. Working in mining can also provide technical and science related work and many women are drawn to these areas. "The high qualification rate of women professionals [in the resources sector] remains consistently strong in 2021, with 92.0% of respondents holding at least one university degree, if not more" (AusIMM, 2021). Ellix et al's (2021, p. 3) global study found that the three main reasons women are drawn to mining were, indeed, "the type and variety of work ... the opportunities for professional growth and advancement" and the remuneration.



“Women must advocate for themselves all the time to progress their careers...”

Heavy equipment operator

A career in a trade in mining offers women a well-paid alternative to the poorly paid and casualised occupations where women traditionally dominate. The Workforce Gender Equality Agency report that the annual earnings of women working in the resources sector are more than the average female Australian salary (AusIMM, 2021). Furthermore, Oxenbridge's (2019) study found that women working in trade occupations in mining earned the highest wages of all tradeswomen. For many women in rural and regional Australia, this remuneration provides a "pathway out of poverty" (Hunte, 2016, p. 436).

In terms of working for an employer with a commitment to gender equity, women working in mining may benefit from an industry with a focus on increasing global equity in mining innovation and efficiency, and aligning with 2015 UN SDGs. Kincaid & Smith's (2021) analysis of diversity and inclusion indicators appearing in the sustainability reports of mining corporations from five countries (including Australia) 2012–2019 found that the industry was on a positive trajectory in its aim to meet diversity and inclusion goals. This was particularly so in terms of gender equity and local hiring. These goals include the hiring of women as well as a commitment to supporting women in leadership roles. The authors also found that companies comply with anti-discrimination regulations, reporting on the representation of women in the workforce.

Women reporting to the AusIMM 2021 survey said that workplaces were becoming more inclusive and that areas such as amenities and travel support were improving. The mining industry does attract women and globally women make up as much as 40 percent of entry-level roles (Ellix, 2021, p. 3). However, attrition plagues the industry with women leaving in high numbers due to the barriers they encounter in the mining workforce.

2.4 Barriers and challenges: from attraction to attrition

The barriers that women experience in both the mining industry and in the trades are similar to those found in all male-dominated and highly masculinised employment areas. Furthermore, as we have seen, rural and regional areas present employment issues unique to those areas. Therefore, barriers for women in mining can be compounded by multiple factors.

Barriers to women's employment in mining occur as early as primary school. Due to traditional gender expectations and gender roles regarding what work women and men should do, girls and boys are typically attracted to stereotypical occupations and industries i.e., nursing and teaching for girls, science and trade work for boys – support roles for girls and leadership roles for boys. This barrier is complicated by gendered subject choices at high school. STEM subjects represent a problem area with a fall in the take up of these by high school students (Bryant & King, 2007). Gender issues in subject choice is also a factor. STEM subjects have been traditionally studied by boys as these are understood to be typical pathways to male occupations. Girls are not as familiar with STEM occupations therefore are not drawn toward associated subjects (Makarova et al., 2016). These type of cultural perceptions about gender

and work can also be responsible for deterring high school graduates and their family's from seeing mining and/or trades as an employment option for girls. Furthermore, students and career advisors may lack knowledge about the diversity of mining careers and career development options (Bryant & King, 2007).

Bryant & King (2007) and Pini et al., (2016) note that the tertiary education system in Australia have closed facilities in rural and regional areas in recent decades. This results in reduced options for tertiary courses related to mining professions, particularly those in the trades.

Attraction and recruitment are not as greater problem as attrition. The Australasian Institute of Mining and Metallurgy 2021 survey of women in mining found that most respondents have been in the sector for 15 years or less. There are a range of barriers and challenges that influence these numbers, including social exclusion, discrimination, harassment, limited opportunities and leadership roles and inflexible work arrangements – all problems of male-dominated industries (Bagilhole, 2002; Bridges et al., 2020; Bridges et al., 2023; Whittock, 2000). While mining is not dissimilar to other male dominated and masculinised cultures where women have recently integrated, these issues are of serious concern and limit industry potential.



Because the industry was previously an all-male domain, masculine norms have shaped the workplace. Many of the traditional values and ways of functioning remain. Bryant & King (2007, p.1349-50) explain that the work and the identity of workers have been shaped by masculine norms. The ideal worker is then perceived as masculine, and women are viewed as outsiders who are expected to “conform to strict codes of masculine conduct”. Furthermore, the outsider status attracts increased prevalence of harassment and discrimination.

2.4.1 Advancement and opportunity

Ellix et al's (2021, p. 3) research found that women leave mining when they feel that the work is not challenging and when they have “the perception that there are fewer advancement opportunities than there are for their male colleagues”. They also found that exclusion from promotion and leadership roles reduced women's sense of belonging in the industry and reduced their motivation to remain in their roles. The lack of diversity in leadership roles, combined with the lack of leadership role modelling from other women, is exacerbated by women finding that they are “held to higher standards for promotion, particularly in technical, operational, and executive roles” (Ellix et al, 2021, p.5). Advancement and opportunity are also inhibited by a lack of access to parental/carers leave, flexible work arrangements and the failure of middle management to implement equity and diversity policies.

2.4.2 Flexible workplaces and caring responsibilities

Working at a mine site often involves shift work, long hours, difficult conditions and commuting to remote workplaces that isolate workers from significant others and social resources. These factors can become an issue for women with caring responsibilities (Eveline & Booth 2002; Bailey-Kruger, 2012). Bailey-Kruger (2012, p. 20) reports that “...studies exploring women and their experience of family suggest that the women experience a higher level of difficulty balancing family with work”. The 2021 AusIMM survey found that access to childcare is an area identified by women as a major area of concern. It is well documented that caring responsibilities in the private realm can interfere with equity in the workplace. Childcare has been identified as an essential requirement for parents in the childrearing years. For many mature age workers caring for ageing, ill, and disabled family and also grandchildren require employer provision of flexible work packages (Constantin et al., 2022). Kljajevic (2015) contends that the mining industry is lagging behind in effectively enforcing policies for childcare and flexible working arrangements and that there is a need to review and evaluate policy related to paid and unpaid parental leave, parent friendly rosters, flexible work packages, and part time work.

2.4.3 Cultural issues and an unsafe gender workplace

The Australian Human Rights Commission report ‘Respect@Work: Sexual Harassment National Inquiry Report’ (Broderick, 2022), found that a work environment that is not gender safe fosters gender discrimination, everyday sexism and sexual harassment. A growing body of research investigating mining and unsafe gender environments stresses that a lack of safety creates a lack

of wellbeing, lower job satisfaction, decreased productivity, contributes to attrition and exposes victims of sexual harassment to serious harm (Broderick, 2022; Eveline, & Booth, 2002; Gayen & Nixon (nd). Mettam et al., 2022; Perks & Schulz, 2020). A workplace that is not gender safe usually means that there is a culture where women are sexualised and there is a prevalence of sexual harassment.

Consistent with other male-dominated industries (Bagilhole, 2002; Bridges et al., 2021; Whittock, 2000) mining sites have masculine cultures that value physical strength and technical machinery competence (Mayes & Pini, 2014). These attributes and associated skills can be considered as naturally embodied by men and as unable to be embodied by women. Integrating women into male-dominated work is often accompanied by disrespectful attitudes towards women, the exclusion of women from social networks, workplace discrimination and harassment. Women commonly report high levels of surveillance, needing to prove their worth over and the expectations placed on men and consistent sexual comments, vulgar humour, and increased incidences of workplace sexual harassment.

2.4.4 Poor provision of gender inclusive facilities management

Adapting the workplace to include women often requires modifications to the physical environment. Women need to be able to access safe, clean, respectful and respectable toilets and change facilities, however, the lack of these often presents a barrier to women's employment. Work shifts in mining are long and women onsite are often working and living onsite for considerable periods of time. In male dominated industries such as mining women commonly state that toilets and change rooms are often not available for women or are made exclusively for men and don't suit women's needs (Franco et al., 2020). Uniforms and workwear suited to women's bodies are also an issue. Well-fitting uniforms have been found to enhance work, health and safety, improve comfort and manoeuvrability and "have the ability to facilitate the integration of women in the workplace" (Bjerck, 2016). Yet, a lack of access to appropriate female fitting uniforms and workwear also present a barrier for women in mining.

2.5 Conclusion

The numbers of women working as tradespeople in the mining industry are considerably low, yet, women have been identified as a talent pool that greatly contributes to the productivity of the mining industry. Understanding more about how the mining industry can provide opportunities for women's employment has the benefit of also contributing to rural and regional prosperity, to the enhancement and reputation of the mining industry and to advancing women's employment options and future accomplishments (Kincaid & Smith, 2021; WGEA 2018). It is clear from the literature that there are enabling factors that enhance women's employment prospects in mining and barriers that are contributing to low numbers, particularly to attrition. Projects such as this have the potential to influence policy formation, and strategies and initiatives related to gender equity, diversity and inclusion, skill shortages and economic development in regional and rural Australia.



3 Research design and data analysis

3.1 Introduction

This section begins with a description of the survey conducted for this research before moving onto a discussion of the results.

We start with an overview of the survey and a description of the types of analysis used. We then move on to the results of the quantitative and qualitative questions which explore where participants trained, work and live, the opportunities that mining provides and their likelihood of remaining in mining.

3.1.1 Overview of the survey

An online survey was designed to evaluate to what extent the mining industry provides opportunities for women to work in mining while staying in place in regional areas. Ethics approval was granted by the CSU Ethics Committee (Protocol number H22087). The data in this report draws on the unique perspectives of the women working in mining. Participation in this project was voluntary and anonymous. No identifying information was collected. All quotes are unaltered to reflect participant opinions.

The survey was disseminated between September and October 2022 and took respondents approximately 15–20 minutes to complete. Participants were women in mining, who perceived themselves to be skilled based on formal qualifications or on-the-job training. All were over 18 and currently employed in the mining industry in regional, rural and remote Australia. As this was a very specific group, participants were recruited using a purposive sampling method. Specifically, our recruitment strategy focused on open invitation to women through employer, industry body and social network groups. The survey was distributed by a number of organisations including Newcrest Mining's Cadia Valley Operations, WIMDOI (Women in Male Dominated Industries), the Australian Workers Union (AWU) and Mining & Energy (A Division of the Construction, Forestry, Maritime Mining & Energy Union (CFMMEU)). The survey link was sent to staff, members and networks via internal newsletters and websites, social media (Facebook and LinkedIn), and in some cases through advertisements in local papers. By outreaching to several different types of organisations we minimised the risk of excluding groups of women

– all women in all groups had a similar opportunity to participate. By using an invitation as a method, we limit the risk of coercion and undue influence. Due to this method of sampling, it was not possible to determine a response rate. The final survey included a total of 125 skilled tradeswomen.

The questionnaire consisted of 48 questions which were divided into five main sections: (a) socio-demographics; (b) place of residence and work (c) moving around for work (d) opportunities and support and (e) open-ended questions in relation to opportunities and challenges provided by the mining industry in relation to work labour market experience. See the full questionnaire in [Appendix 1](#).

Responses included closed-ended and Likert-scale responses as well as space for open-ended comments. The intention of the open-ended questions was to let the women respond in their own language which provided an authentic account of their experiences and provided an opportunity to identify new information.

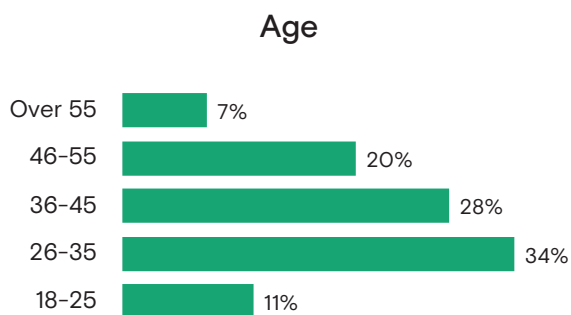
The data was analysed using SPSS and is presented using graphs and pie charts. In addition to basic descriptive statistics, we also performed a series of cross-tabulations to examine if there was an association between the demographic characteristics of respondents, opportunities mining had provided and the respondent's likelihood of remaining in mining in a skilled trade. Qualitative responses to the survey were analysed using a thematic analysis. A thematic coding frame was developed and applied (Denzin & Lincoln, 2000) with two researchers reviewing the qualitative responses to identify emerging themes. This kind of qualitative survey analysis allows us to delve further into the themes arising from the data through an iterative reading that will enable the identification of themes, patterns and concepts. This is particularly useful for smaller sample sizes and more complex subjects. The subsequent themes were compared with the relevant quantitative results by the broader research team.

3.2 Data analysis

3.2.1 Characteristics of the sample

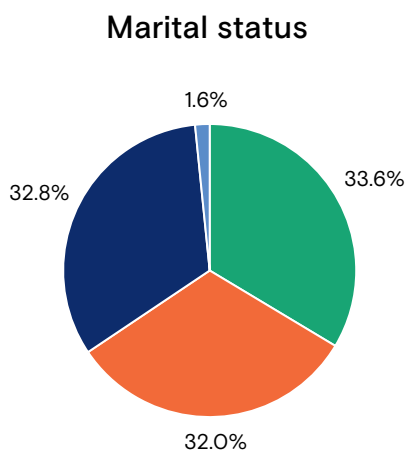
There were n=125 respondents included in this final survey. The average age of respondents was 37.5 years of age, which is slightly younger than the industry average (40 years of age) as shown in the annual AusIMM Women in Mining Survey (2022). The majority of the respondents were between 26–55 years of age (Figure 1), were relatively evenly dispersed between single (33.6%), married (32.8%), and defacto (32%) relationships (Figure 2), and were heterosexual (78.4%) (Figure 3).

First Nations people were well represented with 14.4% of the sample identifying as Aboriginal or Torres Strait Islanders (this is well above the national average of 3% and the 5% level of Indigenous employment in the mining industry, and comparable to the level of Indigenous population in remote Australia 19.9%). A further 3.2% identified as culturally or linguistically diverse, which appears to be in line with diversity in regional Australia.



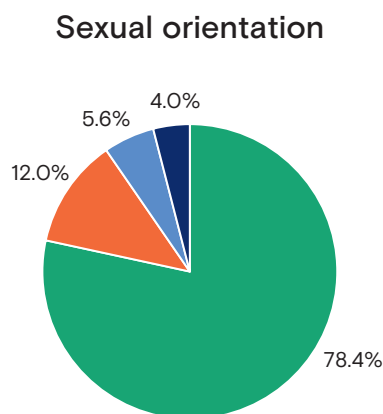
14.4% of the sample identified as Aboriginal and/or Torres Strait Islander and 3.2% as culturally and linguistically diverse

Figure 1: Age



■ Single ■ De facto ■ Married ■ Prefer not to say

Figure 2: Marital Status



■ Heterosexual ■ Lesbian ■ Bisexual ■ Other

Figure 3: Sexual orientation

As shown in the Figure 4. below 41.6% of the women sampled were carers, 35.2% of them were caring for children under 18 (in keeping with fact that the majority of the sample are women under 46 years of age). A small proportion care for family members who have disabilities (4%) or are aging (3.2%) (NB people could be carers in multiple categories). The pie chart in Figure 5. reveals that of the people caring for children 34.1% care for children under five, 56.8% care for children between five and twelve and 43.2% care for children over twelve years of age.

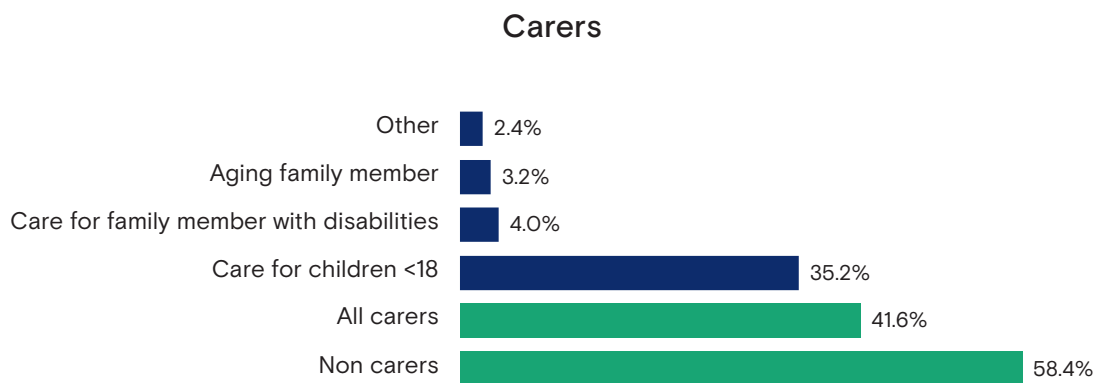


Figure 4: Carers

Breakdown of proportion of people caring for children <18 who care for children in each age category

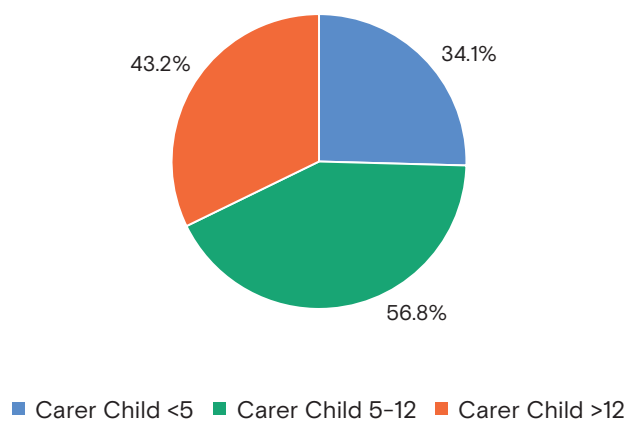


Figure 5: Carers versus age of child

About half the respondents had a Certificate III (26.4%) or IV (23.2%) level qualification, a further quarter of the sample had a Year 12 (25.6%) or Year 10 (17.6%) equivalent level qualification, and 7.2% had some form of tertiary qualification (Figure 6).

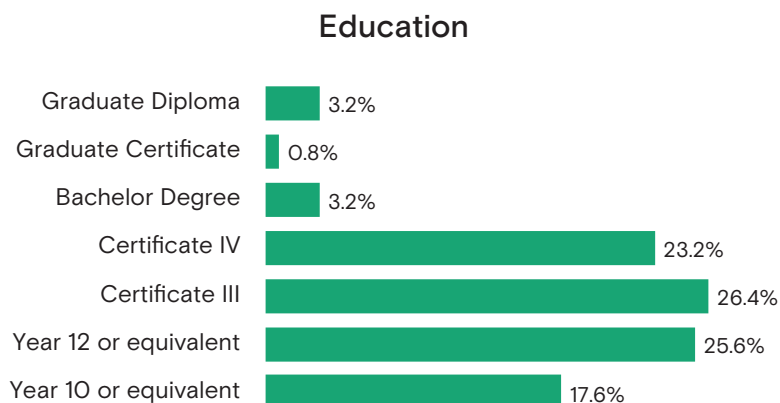


Figure 6: Education

The intention of our research was to capture skilled tradeswomen in occupations such as electro-technology, automotive, construction and mining labourers, steel construction workers and other construction and mining labourers (ABS 2020). This distinguishes our study from other surveys of women in mining which target women in professional and administrative roles as well as those in skilled and semi-skilled roles. It should be noted here that skill is a socially defined concept that is based on a range of factors such as:

- the range and complexity of tasks that may be required within a given occupation
- levels of formal education
- level of on-the-job training and
- level of experience.

When surveying participants, the concept of skill level is difficult to capture, and so level of formal education, occupation, years of service in a role are frequently used as proxy measures of skill (ABS, 2023). However, these remain an incomplete measure of individual skills. It should also be noted that formal qualification levels may or may not be relevant to a particular job, for example a person with degree qualifications in nursing, may be employed in a mining job that is considered semi-skilled, while a person with minimal formal qualifications such as year 10 schooling, may have extensive experience and on-the-job training that results in them being considered highly skilled.

When asked to describe the level of their main job over two thirds (69.2%) of the respondents indicated they were experienced workers. However, when asked how long they had been a skilled tradesperson, 27.6% had worked 1-5 years, 26.5% 6-10 years and 22.5% 11-15 years (Figure 8) suggesting that there is more to the perception of being an experienced worker than time served. Overall, 70.7% of the respondents included in this sample had been in the industry less than 10 years suggesting this is a less experienced cohort than is represented in the national survey, where 68% of respondents had been in the industry over 10 years (Annual AusIMM Women in Mining Survey (2022)).

A further examination of the way respondents described their jobs in comparison to ANZCO categories, shown in Figure 7, revealed that 59.2% of the respondents were described as Machinery operators and Drivers (which are considered semi-skilled occupations) while 36% were classified as Technicians and Trade workers (which are considered skilled roles (ABS 2023)). In addition to their role as a tradesperson, 24% of respondents had worked in mining in other roles (such as bench hand operations, dispatch, coal sampler, operator and health and safety). Their time in those roles ranged from 6 months to 15.5 years with an average of 7 years. These findings revealed that the respondent's perception of being a "skilled tradesperson" included both formal qualifications and on-the-job-training.

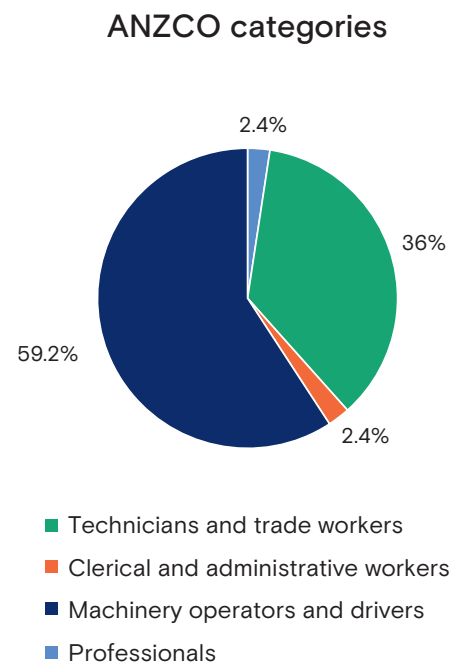


Figure 7: Proportion of respondents in ANZCO categories

How long have you been a skilled tradesperson?

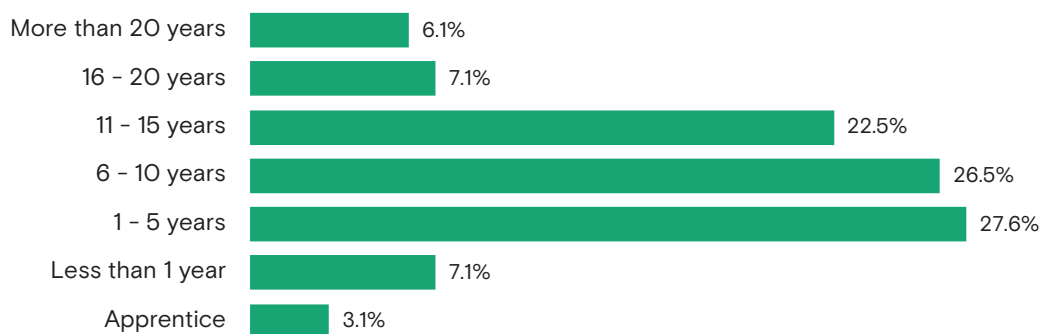


Figure 8: Time as a skilled tradesperson in mining

It is interesting to observe that skilled tradeswomen included in this survey travel more for work than the Women in Mining Survey 2022 snapshot conducted by the Australasian Institute of Mining and Metallurgy (AusIMM). More than 85% of the participants in our survey worked in a FIFO or DIDO position, compared with 27% as per the AusIMM survey. This is a large difference; however, we are cautious of making a direct comparison to the AusIMM survey given it targeted a different sample. Furthermore, our survey did not specify specific travel distances and 27.2% of respondents did not answer this question which might assume a standard distance from work sites².

78% were DIDO workers and 11.4% were FIFO workers

Weekly incomes ranged from \$801-\$2500 with 51.9% taking home between \$1600-\$1999/week (Figure 9). Further, approximately 80% of the survey participants earn more than the average Australian full-time female average weekly ordinary time earnings of \$1,686.80 (<https://www.abs.gov.au/statistics/labour/earnings-and-working-conditions/average-weekly-earnings-australia/latest-release>).

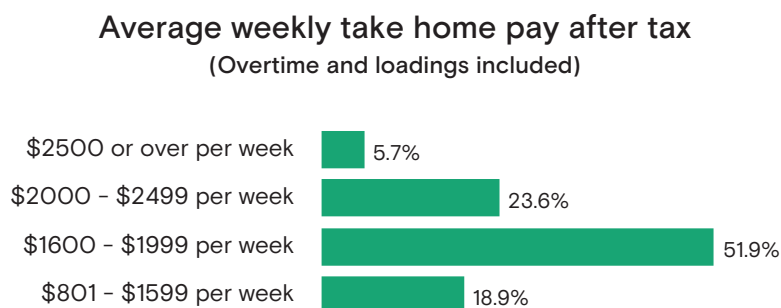


Figure 9: Income

3.2.2 Location and mobility

Over half of the women who responded (55.3%) lived in a rural town with a further 26.6% living in regional centres, as shown in Figure 10. Just under a third (32.6%) had relocated to commence skilled trades qualifications. As a comparison of the data on the location prior to commencing skilled trade qualifications (Figure 11) and current location (Figure 10) respondents who moved from the metropolitan areas tend to mainly settle in regional centres and rural towns rather than remote communities.

² We define 'DIDO' to include workers who drive in and stay for extended or swing shifts as well as those who commute to sites daily for single shifts.

What location did/do you live?

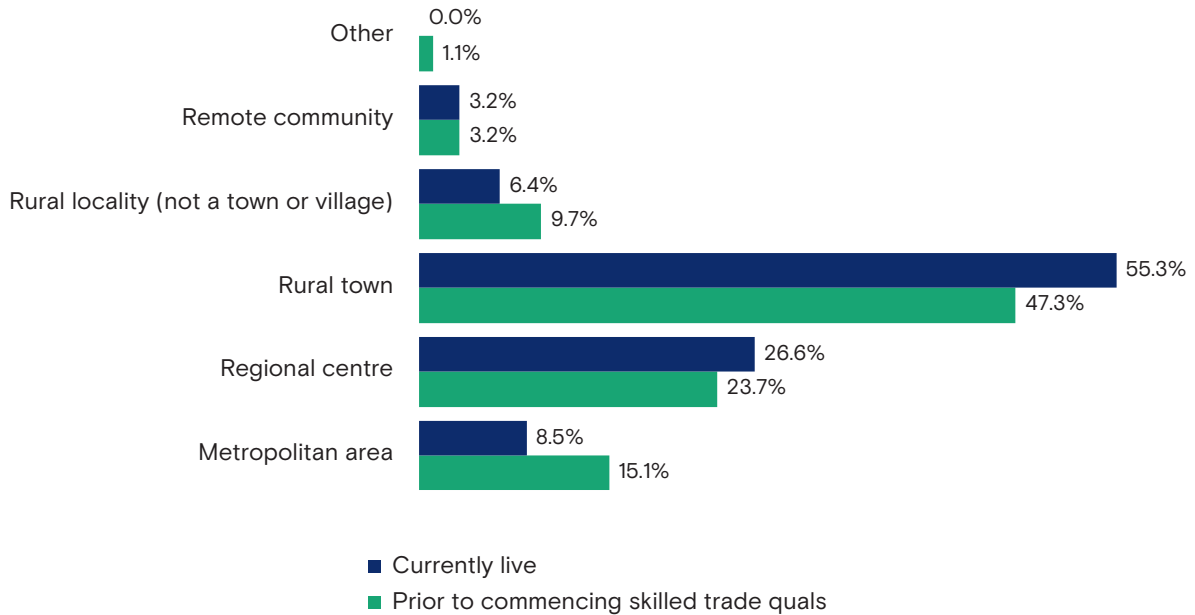


Figure 10: Location of residence

The responses to the questions about the mobility would indicate that the respondents in this survey tend to be relatively stable population cohorts in terms of movement and relocations. Just under a third (32.6%) of respondents relocated to commence skilled trades qualifications (Figure 11). Less than a fifth (18.4%) moved for the purposes of work with the number of moves ranging between 1-10 times at an average of 4.25 times for those who responded. More than 50% of the respondents in this survey (54.5) were never required to move to another location to obtain employment within the mining industry. Considering those who were never or rarely asked to move, around 75% of respondents did not have to move in order to get employment in mining industry (Figure 12). In further analysis we found only a quarter (25.8%) had worked in a skilled trade in other locations (i.e., other than their current location) and 62% reported having to live and work away from family at some stage in their career.

Did you relocate to commence skilled trades qualifications?

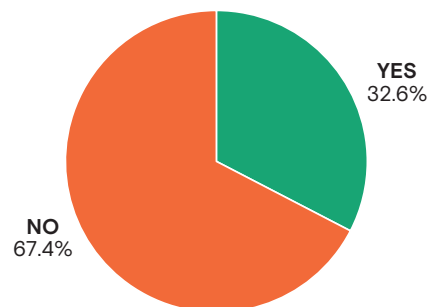
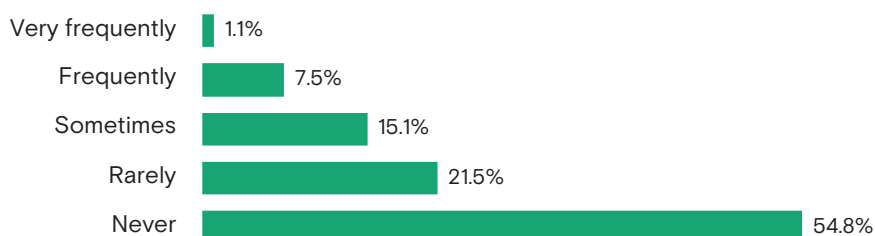


Figure 11: Relocation to commence skilled trades qualifications

Nearly three quarters (74.2%) (Figure 13) were satisfied that they can live in locations that suit them whilst working in trade in the mining industry, while 63.4% were satisfied that they could live in locations that suit their family whilst working in trade in the mining industry and 56.5% of respondents aspired to remain in a rural/regional area to live and work (Figure 13). Overall, these findings suggest that respondents wanted to remain in the regions and for the majority, working in their trade in mining allowed them to do that.

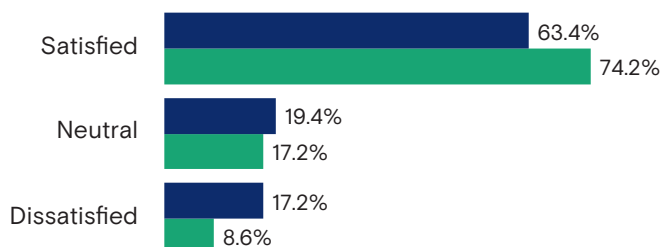
How often have you been required to move yourself to another location in order to gain employment within the mining industry?



The majority of respondents were satisfied that they can live in locations that suit themselves (74.2%) or their family (63.4%) whilst working in their trade in the mining industry

Figure 12: Moving to another location to gain employment within mining

Satisfaction



**Figure 13: To what extent have you been satisfied that you can live in locations that suit you/
your family whilst working in your trade in the mining industry?**

Only 6.5% of respondents said they had no aspirations to remain in the area with the majority 56.5% aspiring to remain to a large extent (Figure 14).

Aspiration to remain in the regions

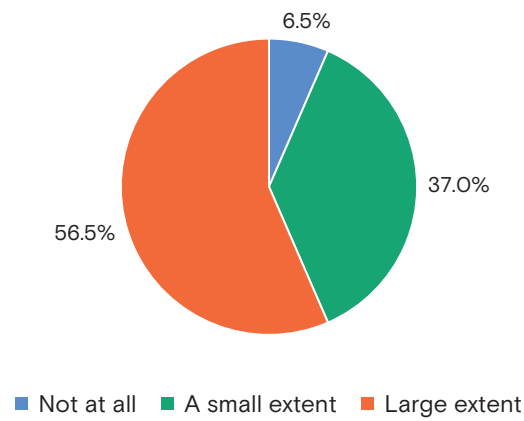


Figure 14: To what extent have you aspired to remain in a rural/regional place to live and work?

Figure 15. provides further details about moving to gain employment in mining by also considering the need to move a family. The data indicates that families are less frequently required to move (70.7% never moved), and the required mobility of families was lower across all other categories (rarely, sometimes, frequently, and very frequently). Of those who have been required to move away from family, close friends and social networks, the average or most frequent response was one move.

How often have you been required to move yourself/your family to another location in order to gain employment within the mining industry?

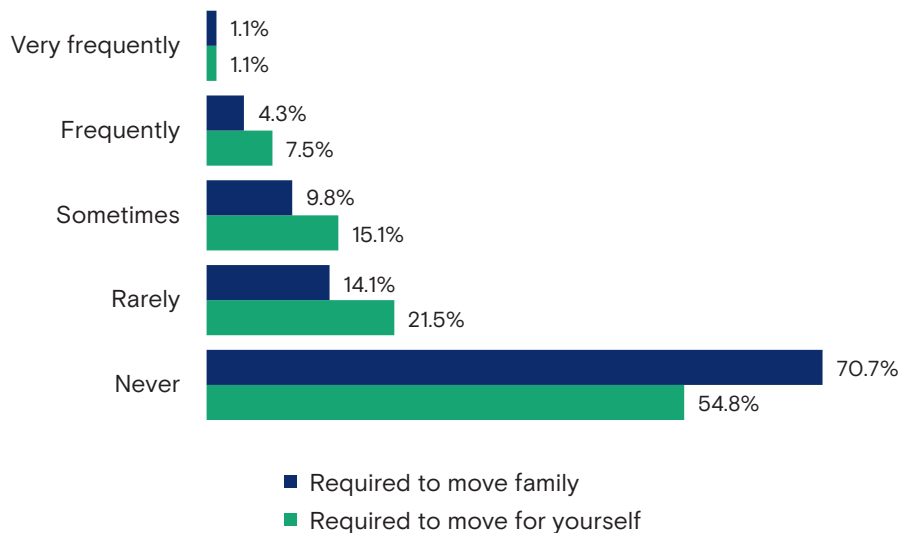


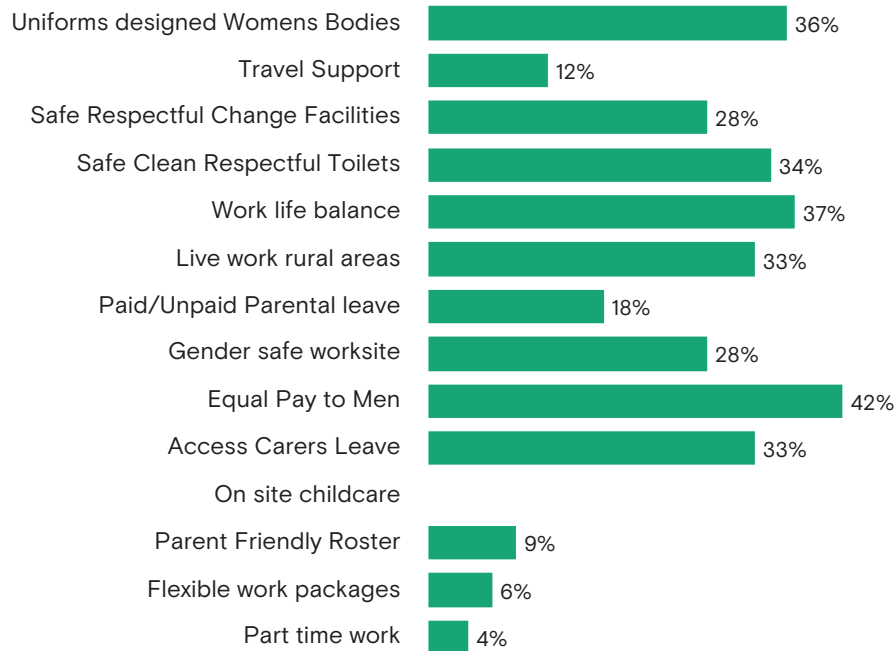
Figure 15: Moving to gain employment

3.2.3 Opportunities provided by the mining industry

We asked respondents to indicate which of the 14 opportunities listed in the questionnaire were provided by the mining industry. Respondents were given the option to select all that applied. On average respondents selected 3.2/14 opportunities. The most frequently selected opportunity was equal pay to men (42%) (Figure 16). The next most selected opportunities included work-life balance (37%); uniforms designed for women’s bodies (36%); safe, clean, respectful toilets

(34%). In addition, one-third of respondents indicated living and working in rural areas (33%) and access to carer's leave (33%) as opportunities the mining industry had provided (Figure 16).

Opportunities provided by the mining industry



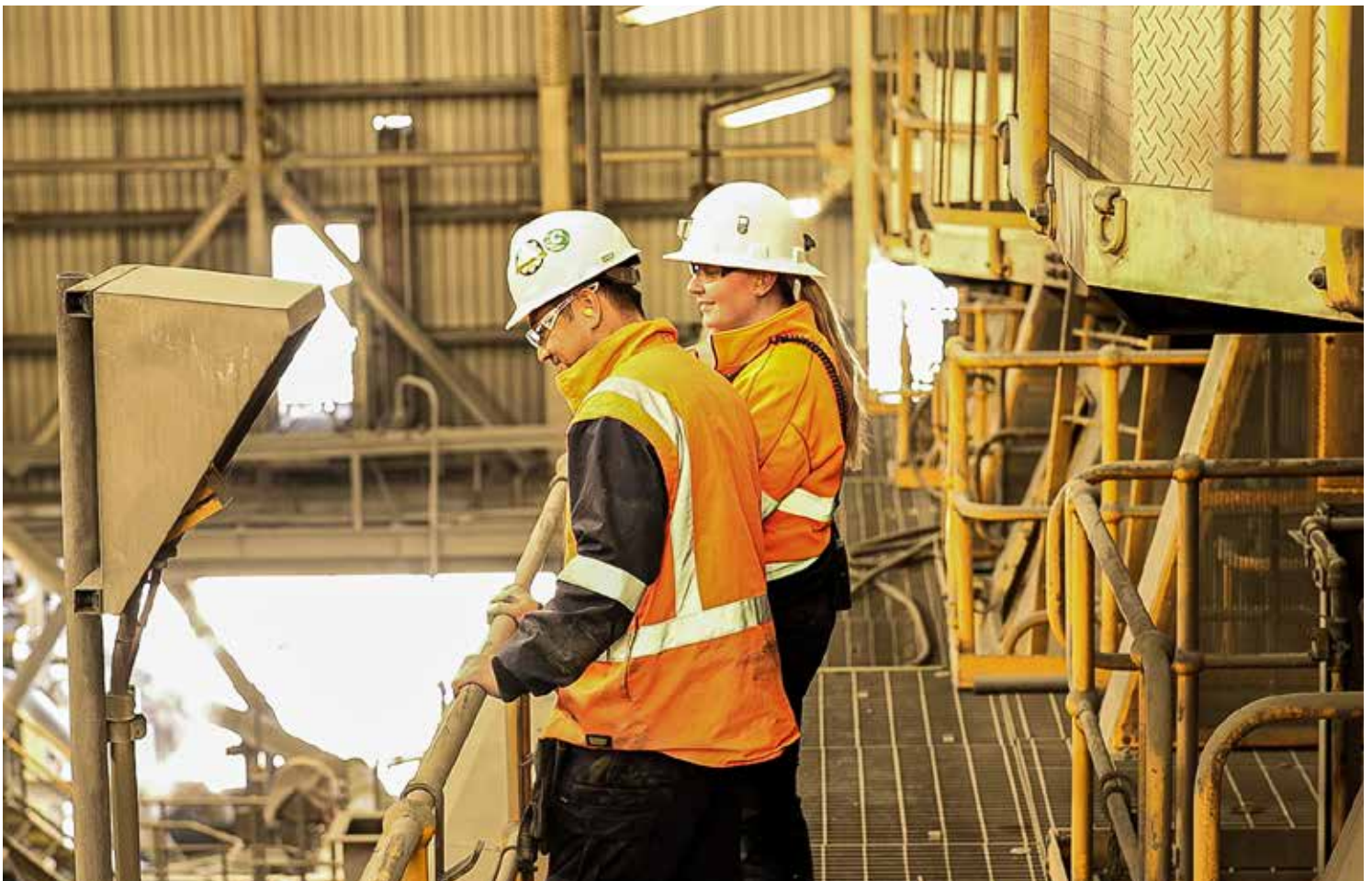
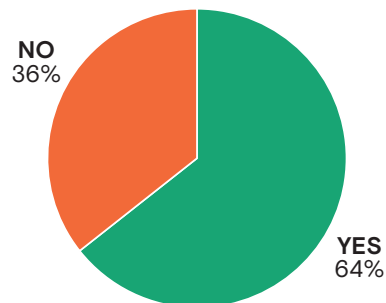
“...this has been a challenge for me during my apprenticeship as women aren't always viewed as being capable of being a tradesperson.”

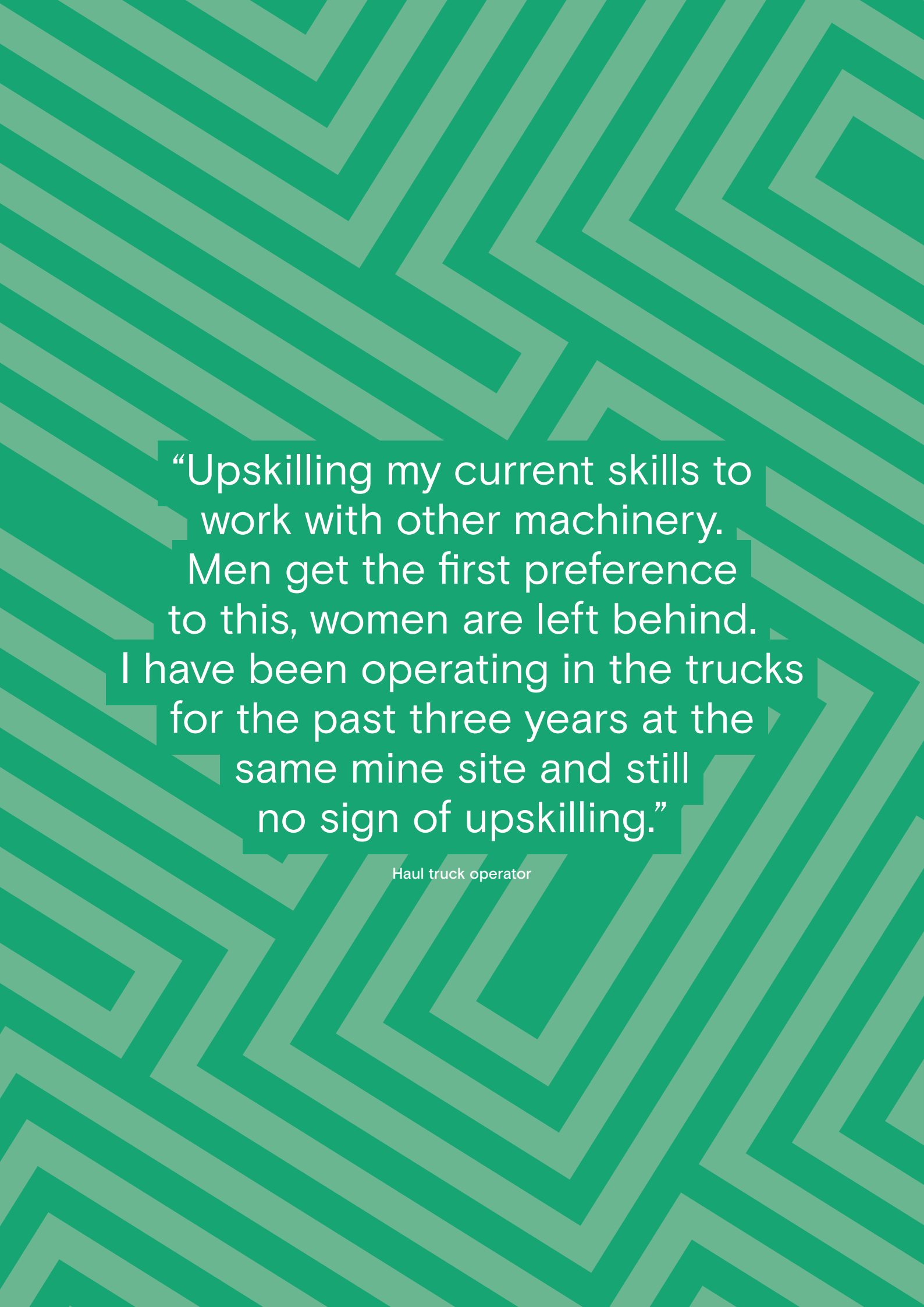
Mobile plant mechanic

Figure 16: Opportunities provided by the mining industry

Reflecting that the makeup of the sample included 41.6% who identified as carers and the majority of those were caring for children (Figure 5, page 24), very few respondents indicated that mining provided opportunities related to part-time work (only 4%), flexible work packages (6%), a parent-friendly roster (9%) and onsite childcare (0%) (Figure 16).

Did the mining industry provide you with employment in a skilled trade in a rural/regional area of your choice?





“Upskilling my current skills to work with other machinery. Men get the first preference to this, women are left behind. I have been operating in the trucks for the past three years at the same mine site and still no sign of upskilling.”

Haul truck operator

Figure 17: Did the mining industry provide you with employment in a skilled trade in a rural/regional area of your choice?

One in eight participants in this survey reported they have never received on-the-job training, while around 60% have rarely or sometimes received some form of on-the-job training (Figure 18). Moreover, half (50%) of the participants had never had an opportunity for continuing education (Figure 20). Job counselling has not been offered to around one third of the participants when they considered leaving the company (Figure 19).

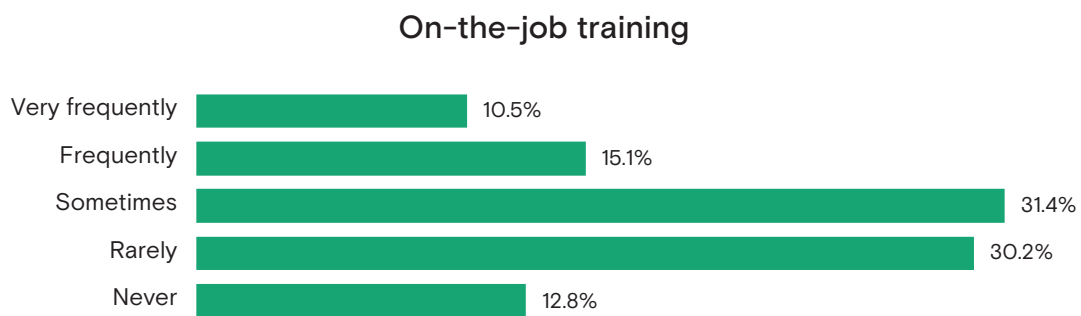


Figure 18: Opportunity – On-the-job training

Job counselling when you are considering leaving

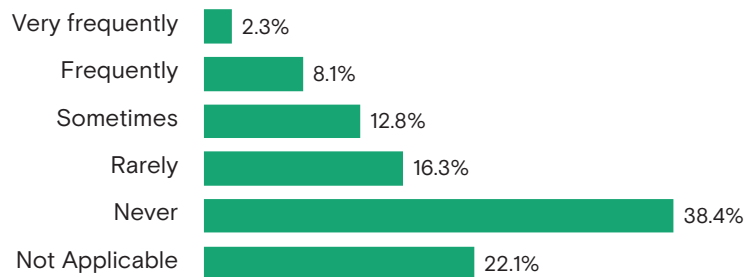


Figure 19: Opportunity - Job counselling when considering leaving

Continuing education

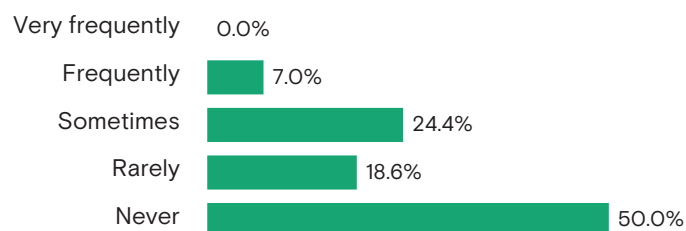


Figure 20: Opportunity – Continuing education

3.2.4 Likelihood of remaining in mining while working in a skilled trade

The majority of respondents indicated they were likely (35.4%) or extremely likely (32.9%) to remain in mining while working in a skilled trade. Less than 15 % were unlikely or extremely unlikely to remain in the industry (Figure 21).

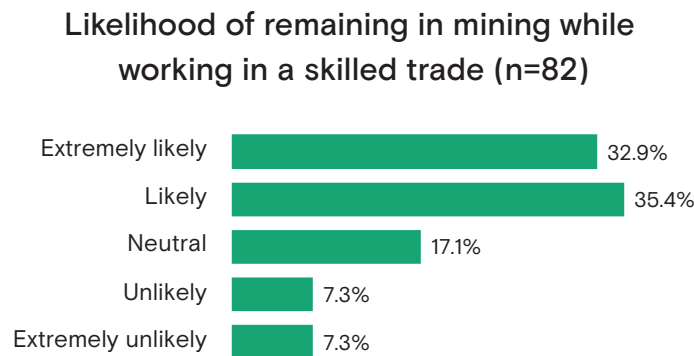


Figure 21: Likelihood of remaining in mining

3.2.5 Is there an association between the demographic characteristics of respondents and the likelihood of remaining in mining in a skilled trade?

Analysis was conducted to examine if there was an association between the demographic characteristics of the group and their likelihood of remaining in mining in a skilled trade. Specifically, cross tabulations were run to compare where people lived (location), their level of experience (job level), income, the highest level of qualification (education) and time in the industry with their likelihood of remaining in mining in a skilled trade (shown in Table 1, see complete analysis in [Appendix 2](#)). Income was the only variable that was significantly associated with the likelihood to remain (p.O.03). Specifically, 47.1% of those with an income \$801-\$1599/ week were likely to remain, 75% of those with an income \$1600-1999/week and 86.7% of those

with an income \$2000–2499 were likely to remain. In contrast, those with an income over \$2500 were unlikely to remain (60%).

| Income (avg weekly net) | Likelihood of remaining in mining in a skilled trade | | | | Fisher's exact test |
|---------------------------------|--|-----------|-------------------|-----------|---------------------|
| | Unlikely | Neutral | Likely | Total | |
| \$801 - \$1599 per week | 17.6% (3) | 35.3% (6) | 47.1% (8) | 100% (17) | p=0.028 |
| \$1600 - \$1999 per week | 11.4% (5) | 13.6% (6) | 75% (33) | 100% (44) | |
| \$2000 - \$2499 per week | 6.7% (1) | 6.7% (1) | 86.7% (13) | 100% (15) | |
| \$2500 or over per week | 60% (3) | 0% (0) | 40% (2) | 100% (5) | |
| Total | 14.8% (12) | 16% (13) | 69.1% (56) | 100% (81) | |

Table 1: Likelihood of remaining in a skilled trade versus income

3.2.6 Is there an association between the opportunities mining provides and the likelihood of remaining in mining in a skilled trade?

A series of cross tabulations were run to examine if there was an association between each of the 13 types of opportunities mining provided and the respondent's likelihood of remaining in mining in a skilled trade.

A statistically significant difference in the likelihood of remaining in mining was found for six of the twelve cross tabulations. Three of these results were significant at 1% (p=0.01). Those respondents who identified *Access to Carer's Leave* (32 of 37), *Gender Safe Worksite* (27 of 31) and *Work-life Balance* (36 of 42) as opportunities mining provided also indicated that they were likely to remain in mining in a skilled trade See Table 2 below.

| Opportunity mining has provided | Likelihood of remaining in mining in a skilled trade | | | Fisher Exact test (p-value) |
|---|--|------------|------------|-----------------------------|
| | Unlikely | Neutral | Likely | |
| Opportunity access carers leave | | | | |
| Not selected | 10 (22.2%) | 11 (24.4%) | 24 (53.3%) | p=0.006 |
| Selected | 2 (5.4%) | 3 (8.1%) | 32 (86.5%) | |
| Opportunity gender-safe worksite | | | | |
| Not selected | 9 (17.6%) | 13 (25.5%) | 29 (56.9%) | p=0.008 |
| Selected | 3 (9.7%) | 1 (3.2%) | 27 (87.1%) | |
| Opportunity work-life balance | | | | |
| Not selected | 9 (22.5%) | 11 (27.5%) | 20 (50%) | p=0.002 |
| Selected | 3 (7.1%) | 3 (7.1%) | 36 (85.7%) | |

Table 2: Likelihood of remaining versus opportunities provided

Below is the analysis comparing opportunities mining has provided to the likelihood of remaining in mining in another role. Only two opportunities *equal pay to men* and *safe respectful change facilities* were significantly associated with remaining in mining in another role.

| Opportunity mining has provided | Likelihood of remaining in mining in another role | | | | Fisher's exact test (p-value*) |
|--|---|------------|------------|-----------|--------------------------------|
| | Unlikely | Neutral | Likely | Total | |
| Equal pay to men | | | | | |
| Not selected | 48.6% (17) | 14.3% (5) | 37.1% (13) | 100% (35) | p=0.042 |
| Selected | 24.5% (12) | 32.7% (16) | 42.9% (21) | 100% (49) | |
| Safe respectful change facilities | | | | | |
| Not selected | 37.3% (19) | 33.3% (17) | 29.4% (15) | 100% (51) | p=0.021 |
| Selected | 30.3% (10) | 12.1% (4) | 57.6% (19) | 100% (33) | |

Table 3: Likelihood of remaining in mining in another role

3.2.7 Analysis of open-ended questions/qualitative responses

As discussed in Section 3.1.1, thematic coding was conducted based on the responses to open-ended Question 46 (benefits, opportunities and help available) and Question 47 (challenges, barriers and hurdles) when working in mining in the regions. Question 48 allowed participants to make any further comments.

Of the 125 respondents, 49 women provided responses to the open-ended questions. The benefits and barriers to working in the mining industry and living in rural and regional locations evolved from a thematic analysis of the data. There were 49 comments relating to benefits, opportunities and help available which specifically linked to the literature discussed in Section 2: Background to the study and the *Opportunities provided by the Mining Industry* detailed in Figure 16 above. There were 103 comments relating to challenges, barriers and hurdles which specifically related to the literature discussed in Section 2. Each of the benefits and barriers are briefly illustrated below using quotations from the data.

3.3 Benefits

3.3.1 Financial remuneration and equal pay to men

As a single category, this received the highest number of positive comments from women in the study. Corresponding with the literature and the quantitative data detailed in Figure 16, women reported high remuneration and equal remuneration to men as a benefit of working in the mining industry.

“Benefits are the money...”

“Mining industry provides excellent pay giving women excellent opportunities to make their own decisions about their life.”

“To be able to earn the same pay as men do.”

3.3.2 Living in a rural location and social capital

The women in the study viewed the opportunity to stay in place/live in a rural area, proximity to family and friends and social capital as benefits of working in the mining industry. After financial remuneration, living in a rural area and proximity to family/friends received the most comments. This finding also correlates with the literature in Section 2 and the quantitative data in Figure 16. Participants talked about the different benefits of a rural lifestyle:

“I can maintain my outdoor lifestyle. Enjoying time with my horses and dogs.”

“I really enjoy living in a rural village and being far enough away from the mines that the house prices aren’t impacted by downturns and dust. It’s about a 45-minute drive of main roads so it’s relatively safe.”

“I like being away from the hustle and bustle of regional and city.”

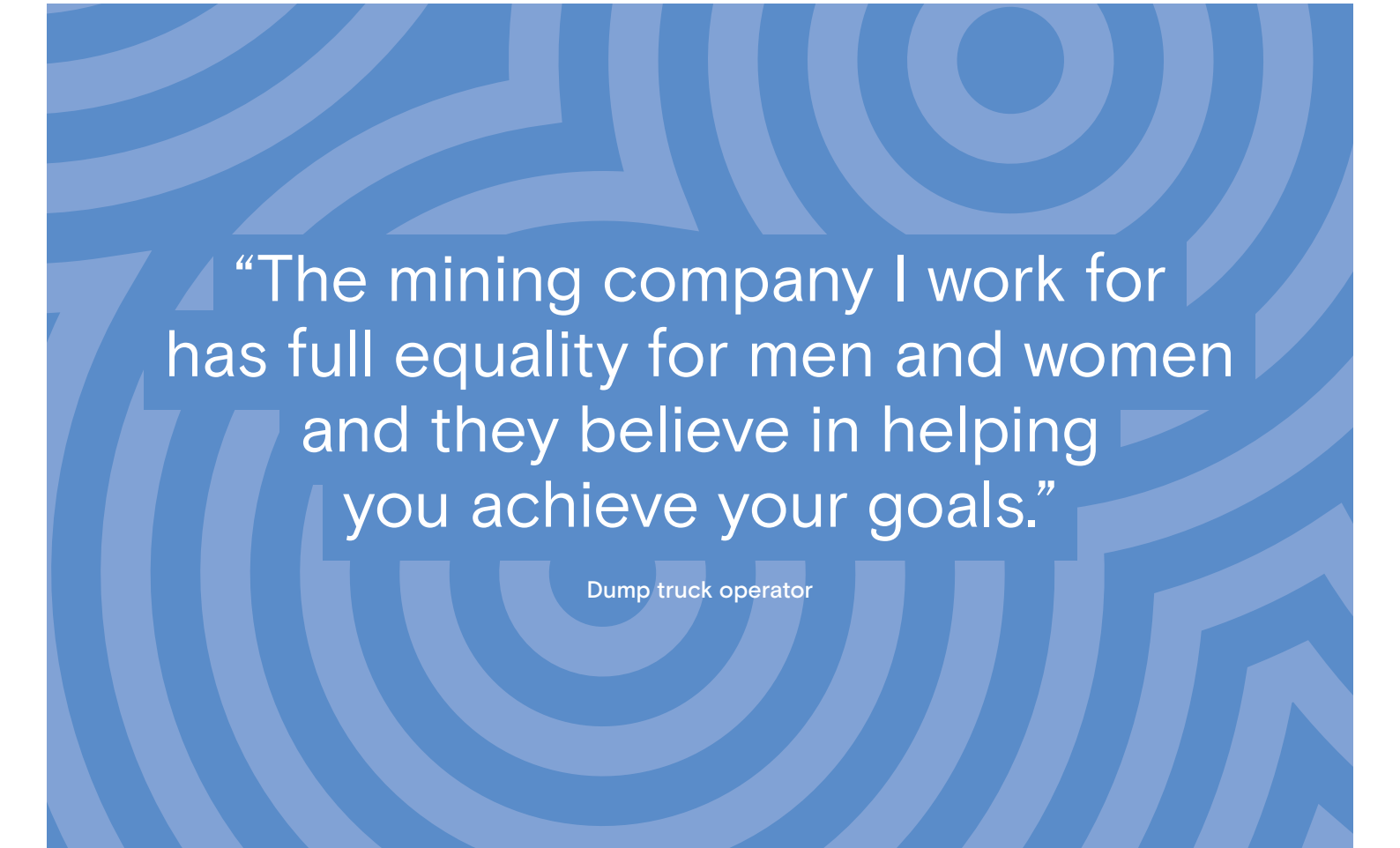
“I live in a rural location which suits my lifestyle.”

“I live in a mining area so there are plenty of jobs available to me where I don’t have to move location.”



“I can be home each day
and night for my children.”

Open cut operations



“The mining company I work for
has full equality for men and women
and they believe in helping
you achieve your goals.”

Dump truck operator

For some women, the familiarity of a mining town and having friends and family in the industry was a benefit:

“I grew up in a mining town so I know only mining lifestyle, my husband worked in the mines... when [my children] became teenagers I started working in the mines... I have a great team of guys I have worked with over my years we all look out for each other.”

“Close community and friendships.”

“I can be home each day and night for my children. And be able to stay close to family.”

3.3.3 When mining is an inclusive employer

When rosters suit women’s lifestyles such as equal time rosters, women can achieve work life balance which is identified as a benefit of working in the mining industry. This corresponds with the literature which indicates that providing these provisions increases the number of women attracted to work in the mining industry. This category received the most comments after financial remuneration and rural location and correlates to the quantitative data in Figure 16. Similarly, the increase in women colleagues working in the mining industry is perceived to be an increase in gender equality and inclusion measures in the workplace. Women made the following comments:

“It is great to see so many women heavy machinery operators now in the mines. There weren’t many when I first started 26 years ago.”

“The mining company I work for has full equality for men and women and they believe in helping you achieve your goals.”

“Work life balance with even time rosters are excellent.”

“I strongly recommend females applying for mining positions. The roster (7:7) gets some time to get used too however the 7 days off is an advantage.”

3.4 Barriers

3.4.1 Cultural issues and an unsafe gender workplace

As a barrier to working in the mining industry, gender inequality and the male culture of the mining industry received the highest number of comments from women in the study. This corresponds with the literature discussed in Chapter 2. Women reported this as disrespectful attitudes towards women; the expectation that to belong and prove their worth, women need to be better at their jobs than their male colleagues. One woman described the mining environment as operating differently to other areas of society and that the “behaviour/attitude of those not accustomed to a female in the industry” remains a problem.

“The behaviour of a lot of men in the mining industry are rude, abrupt and disrespectful towards women in general. It is the attitudes, words and action of men that challenges me the most. They seem to live in a bubble where it’s okay to say disrespectful things towards or at women.”

“Equality is still lacking across mining as a whole. I have seen improvements, there are still some dinosaurs with entrenched misogynist, racist and other draconian mindsets that need to be let go for the industry to be able to move forward as a whole. N.B, these dinosaurs are not always old in age, some young ones are definitely present also.”

Women also described situations where they are excluded from social networks and made to feel that their presence is inappropriate in a male-dominated work environment. This is expressed through sexually explicit jokes and stories, and ‘practical jokes’ (some of which are physically dangerous). References to women’s bodies and sexual orientation are used as a strategy to exclude and harass women and considered a significant barrier to working in the mining industry:

“Harrassment — sexual, physical, verbal discrimination — being a female — lack of safety.”

“Sexism, discrimination, bullying, age discrimination.”

“The mining industry is a man’s job, that is what I was told when I first started my traineeship in the mining industry. I was also asked my bra cup size and if I was a dike [lesbian].”

“I think that straight single women face a lot more unwanted advances and harassment from male co workers.”

Another said that she was made to “feel like a quota” at work. The accumulation of these things makes women feel like they don’t belong in mining. The problem of proving oneself was also evident in the qualitative data:

“As a female in prestrip I have had to prove myself more than the guys... proved I can do the job as good if not better than some off the guys. Even after all the years I have worked in mining you still get some guys think you are not worthy...”

“...this has been a challenge for me during my apprenticeship as women aren’t always viewed as being capable of being a tradesperson. I find that lots of people are very closed-minded and old-school and treat women differently...”

“Not feeling equally treated or viewed.”

“The amount of times I’ve had to ‘prove’ myself is ridiculous.”

3.4.2 Lack of advancement and opportunities

The literature states that women experience discrimination based solely on their gender. This discrimination relates directly to women being denied opportunities for training, career development and other opportunities related to advancement. Women in this study report a lack of advancement and opportunities as the third most major barrier preventing them from succeeding in mining.

“Not being treated equally to the men, upskilling takes a lot longer if you are a woman.”

“Training male dominant industry. Males who have started same time as me have been given more opportunity.”

“The attitude of males when it comes to upskilling.”

“I have been employed... for the last nine years and followed all their procedures closely and let my bosses know I am keen to up skill but they have not given me the opportunity to do so, even though they advised how they pride themselves in how up skilling their people. I might add I have noticed how the younger straight women are more often given opportunity to upskill.”

“Being in a female in a male dominant industry is very challenging it is much harder to get upskilled.”

“Upskilling my current skills to work with other machinery. Men get the first preference to this, women are left behind. I have been operating in the trucks for the past three years at the same mine site and still no sign of upskilling.”

“The mining industry as a whole is still a very sexist industry. Women must advocate for themselves all the time to progress their careers (which is very difficult to do).”

3.4.3 Lack of flexibility and implementation of family friendly policies in the workplace

The mining industry is focused on recruiting women due to skills shortages in trades, mining and professional occupations. The literature indicates that women are a vital talent pool and the benefits of employing a diverse and inclusive workforce impact favourably on an organisation's performance, resilience and economic remuneration (Kincaid & Smith, 2021). Inclusive and diverse workforces have been found to be more efficient, productive and improve employee engagement and retention (Kincaid & Smith, 2021).

Respondents to the qualitative questions identified a lack of flexible work provision and implementation of parental leave policies in the mining industry. The literature indicates that providing these provisions increases the number of women attracted to work in mining. Women made the following comments:

“Maternity leave and childcare leave need to be mandatory. For men and women, depends who the main carer is. The guilt trip associated with pregnancy and child care needs to be talked about more!!”

“After having my first baby it was very hard to go back to work as much as they bang on about how easy it is it is very hard and I didn't feel supported on this decision to be a working mum.”

“My main challenge was having male employees understand what it's like being pregnant and/or working mum. (Default parent/having breastfed babies etc). We are literally repopulating the earth. So what if we need more flexible work arrangements for 5% of our working career. I take pride in my work, reliable and a good operator... Our needs are different. It doesn't mean we aren't worth working with.”

“Flexibility with care for children.(mothers are often required to be the parent that is needed more time off).”

“I am very active in my Union and have developed a role within it dealing with advocating for women and about women's issues within the pit as the entire management structure of the Company is male and they have no idea of the realities for women. (Neither does the HR departments who often seem to take the blokes side). Our company recently tried to cut our parental leave in half by both time and money. The mining companies act like they want women but they only want women in certain roles where they can be controlled.”

3.4.4 Lack of gender inclusive facilities management

Adapting the workplace to include women often requires modifications to the physical environment. The literature notes that the lack of access to appropriate facilities on worksites and the lack of available female fitting uniforms and workwear present barriers to women's employment in the mining industry. Both of these correlate with the quantitative data in Figure 16 but in the qualitative comments women made particular mention to the lack of facilities for their personal hygiene:

“Having access to toilets is also another issue. Men can urinate anywhere. Not as easy for women.”

“If anything I've found to be a drama, it would be how frequently the sanitary bins are cleaned out, which is not often. 1 toilet out of 7 have a sanitary bin, and it's consistently over-flowing. When raising that concern to a male supervisor they don't want to hear about it 'because it's gross'.”

“Supplying the facilities for women when more females are hired into the workforce. eg: it has taken my workplace 2 years to get onto supplying more women's toilets out in the pit and extend the women's bathhouse/locker room even though it was already an issue prior long before 2 years ago.”

“So what if we need more flexible work arrangements for 5% of our working career... It doesn't mean we aren't worth working with.”

Heavy machine operator



4 Concluding comments and policy recommendations

4.1 Introduction

This research aimed to understand the nexus between the mining industry, employment in regional and rural Australia and the role the mining industry plays, or could play, in the advancement of regional and rural women's career opportunities. The project investigated the problem of low numbers of women in skilled trade occupations in the mining industry and sought to understand how the mining industry can attract more women into these roles in regional areas. The focus of the project was to support women to achieve opportunities to train and work in regional areas, to contribute to the vibrant sustainability of regional Australia, and to promote the business case for hiring women in the mining industry.

Specific research aims were to:

- Identify trends in the outmigration of women in skilled trade occupations in the mining sector in regional Australia from place of origin in regional Australia
- Identify trends in the 'remaining in place' of women in skilled trade occupations in the mining sector in regional Australia
- Explore the impact and effectiveness of organisational strategies to improve the attraction, recruitment and retention of women in skilled trade occupations in the mining sector in regional Australia
- Explore the relational and career impacts regarding the inability to remain in place of origin in regional Australia
- Explore the role of social and cultural capital in the attraction, recruitment and retention of women in skilled trade occupations in the mining sector in regional Australia
- More specifically, the project designed and administered the survey in order to:
- Evaluate to what extent the industry has provided opportunities to find apprenticeships and work whilst staying place in regional areas or provided opportunities to return to place of origin
- Assess women's aspiration, motivation and ability to remain in place in regional areas
- Ask women to report on strategies and initiatives that supported them to remain in place in their regions of origin or return to those regions to work

4.2 Findings

An online survey was designed to evaluate to what extent the mining industry provides opportunities for women to work in mining while staying in place in regional areas. The final survey included a total of 125 skilled tradeswomen. The questionnaire consisted of 48 questions which were divided into five main sections: (a) socio –demographics; (b) place of residence and work (c) moving around for work (d) opportunities and support and (e) open-ended questions in relation to opportunities and challenges provided by the mining industry in relation to work and labour market experience.

We sought to determine the commitment of the mining industry in its employment of women, and its impact on creating inclusive and diverse workforces in regional and rural areas of Australia. The project's primary focus was on exploring how mining as an industry can contribute meaningfully to rural/regional women's employment.

The results of this research are largely positive and indicate that there are reasons to be optimistic about women's current and future inclusion in the mining industry in Australia and the subsequent influence this has on rural and regional prosperity.

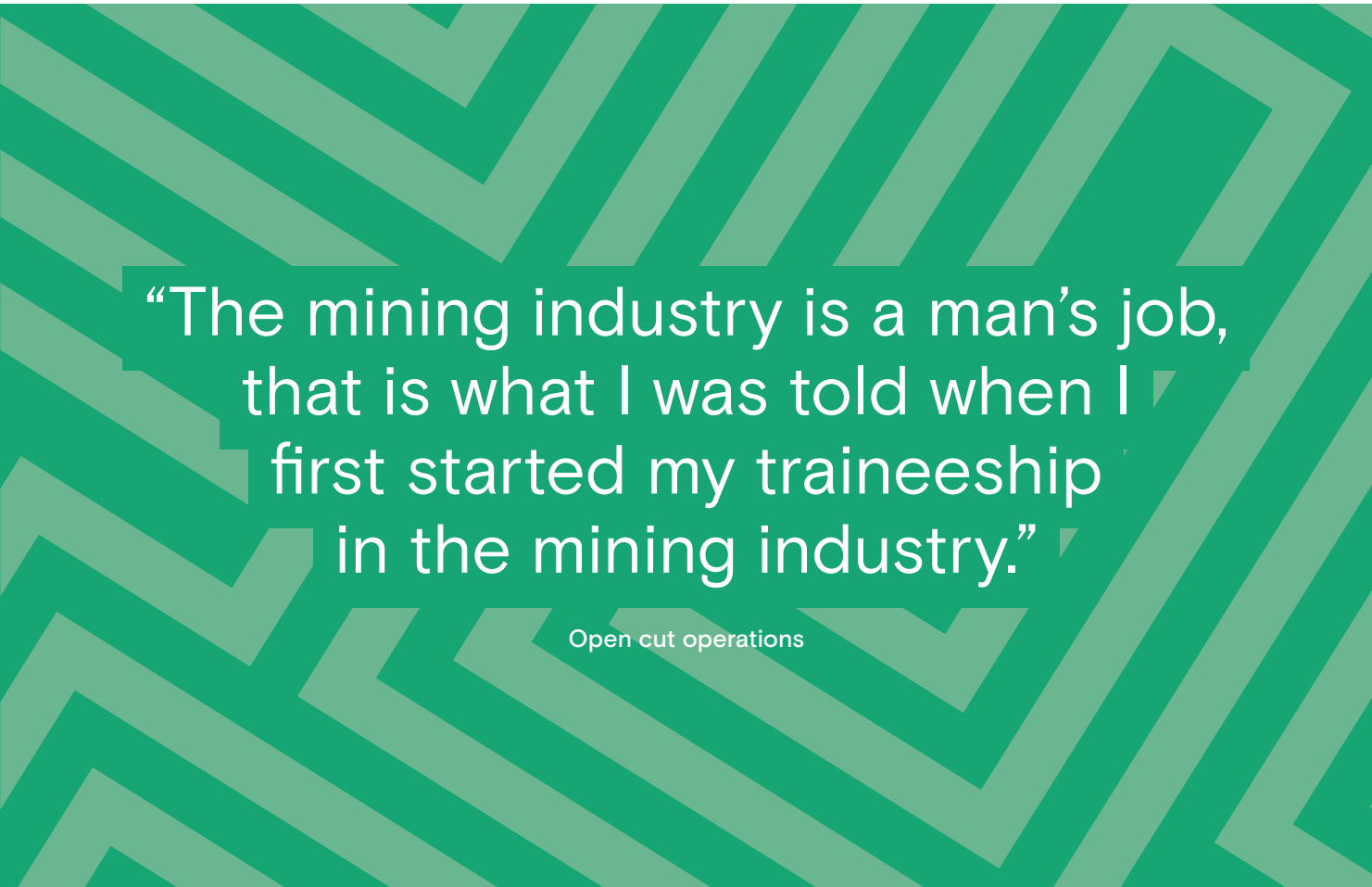
A significant finding of the research is that over 80% of the women we surveyed live in rural towns and regional centres (55.3% lived in a rural town and 26.6% in regional centres). Indeed, nearly three quarters (74.2%) were satisfied that they could live in locations that suited them whilst also working in their trade in the mining industry. This was slightly less for women reporting about living and working in an area that suited their families. Although nearly two thirds (63.4%) were satisfied that they could live in locations that also suited their families.

Furthermore, the majority of respondents (56.5%) said that they aspired to remain living and working in rural/regional areas, with a further 37% saying that they had some aspirations to remain. Only 6.5% of respondents said they had no aspirations to continue living and working in rural/regional Australia in their mining role. Overall, these findings suggest that respondents wanted to remain in the regions and for the majority, working in their trade in mining allowed them to do that. Women responding to the qualitative questions in the survey said mining enabled them to live in a rural location where the benefits of a rural environment, close proximity to family and friends and the social capital available to them made mining a good industry to work in.

Findings also indicate that the mining industry is recruiting from the regions where they operate. In doing so they are in a position to provide women with career opportunities whilst remaining in place in rural/regional Australia.

One of the most encouraging results include the influence of mining on women's financial prosperity. The majority of survey respondents (approximately 80%) reported earning more than the average Australian full time female ordinary weekly income. It has been noted in the literature that occupations and professions that have been male-dominated offer women ways to escape poverty. Women also identified financial remuneration and equal pay with men as being a positive factor in their employment in the qualitative section of the questionnaire. Therefore, a career in mining allows women to remain in regional/rural areas whilst earning a prosperous income. The remuneration that the mining industry provides women was rated highly with 42% saying that they were achieving equal pay with men. This was the most highly cited opportunity in the survey.

Over one third of women said that they were able to achieve work life balance whilst working for the mining industry. This was exemplified in the qualitative data with some women reporting that their employers were inclusive and provided a range of benefits that contributed to work life balance such as family friendly equal time rosters. Other opportunities cited as being provided by the mining industry included access to uniforms designed for women's bodies (36%); access to carer's leave (33%); access to safe, clean, respectable toilets (34%); access to safe, respectful change facilities (28%); a gender safe work site (28%) and to ability to live and work in rural areas (33%). This group of opportunities represents approximately one third of the sample.



“The mining industry is a man's job, that is what I was told when I first started my traineeship in the mining industry.”

Open cut operations

Whilst these results are positive around two thirds of the sample did not perceive the mining industry as providing them with the opportunities above. Therefore, these particular opportunities also need to be viewed as areas where the mining industry could make improvements.

Of importance are the areas where women perceived extremely few opportunities being provided to them by the mining industry. These specifically related to women's roles as carers. For instance, whilst 33% of respondents said they had access to carer's leave only 18% said that they had access to paid/unpaid parental leave. Only 9% said they were able to access parent friendly rosters, 6% flexible work packages and 4% part time work. This is a salient finding because 41.6% of the women sampled were carers. Whilst a small proportion were caring for family members who have disabilities (4%) or are aging (3.2%) a significant 35.2% of respondents were caring for children under 18 (in keeping with fact that the majority of the sample are women under 46 years of age). It is also important to note that respondents to the survey could be carers in multiple categories. In the qualitative data women said that a lack of flexible work and a failure to implement family friendly policy made working in mining difficult for women with caring responsibilities.

Also of concern is that very few women said that they had any access to on-the-job training, continuing education or job counselling. One in eight participants in this survey have never received on-the-job training, while around 60% rarely or sometimes received some forms of on-the-job training. Moreover, half of the participants have never had an opportunity for continuing education and a further 43% rarely or sometimes benefited from continuing education. Job counselling was rarely or never offered to over half of the respondents when they were considering leaving the company. Women indicated in the qualitative responses that their advancement and opportunity was severely limited due to the lack of access to training and further education.

Whilst 28% of women said that their workplace was gender safe, it is a salient finding that 72% of respondents did not indicate this as an opportunity provided by the mining industry. Women who responded to the qualitative questions said that they experienced a workplace with disrespectful attitudes to women. These attitudes translated into the sexualisation of women such as comments about women's bodies, sexual comments, and vulgar humour. They also resulted in the need for women to continuously prove themselves to male colleagues because of their gender.

The recommendations outlined below are informed by the perceived lack of opportunities reported by women participants of this research project.

4.3 Recommendations

Finding 1

Over two thirds of women said their work site was not gender safe (72%).

The Australian Human Rights Commission report ‘Respect@Work: Sexual Harassment National Inquiry Report’ (2020), found that a work environment that is not gender safe fosters gender discrimination, everyday sexism and sexual harassment. A growing body of research investigating mining and unsafe gender environments stresses that a lack of safety creates a lack of wellbeing, job satisfaction, productivity, contributes to attrition and subjects victims of sexual harassment to serious harm (Broderick, 2022; Eveline, & Booth, 2002; Gayen, & Nixon, nd, Mettam et al., 2022; Perks & Schulz, 2020). A work place that is not gender safe usually means that there is a culture where women are sexualised and a prevalence of sexual harassment. To prevent this the mining industry must foster a culture of safety and respect. The recommendations below have been taken from the Western Australian report “Community Development and Justice Standing Committee Report 2 ‘Enough is Enough’: Sexual harassment against women in the FIFO mining industry” (Mettam et al., 2022).

Recommendations:

- Continue to improve the gender balance of workforces – this must include women in supervisor and management positions.
- Ensure that sexual harassment and assault training is accredited, fit for-purpose, and delivered by suitable practitioners. Training should be mandatory and ongoing for all employees.
- Conduct reviews of education and training packages for bystanders on when and how to report incidents of sexual harassment. Where these are not available design and distribute the training.
- Establish a number of internal and external options for reporting and obtaining support for incidents of sexual harassment and assault. All employees must be informed of these options.
- Implement moderate drinking standards for all FIFO accommodation sites.
- Establish clear requirements and guidelines for all contractors, which directly address issues of sexual harassment.
- Establish acceptable standards for accommodation facilities, toilets and change rooms – these should include improvements to security and other safety measures i.e., lighting, locks, CCTV, public area layouts.

Finding 2

One in eight participants in this survey have never received on-the-job training, while around 60% rarely or sometimes received some forms of on-the-job training. Moreover, half of the participants have never had an opportunity for continuing education and a further 43% have rarely or sometimes benefited from continuing education. Job counselling was rarely or never offered to over half of the respondents when they were considering leaving the company.

Employee training and career development have been identified as a means to foster a well functioning workforce. In the report published in 2022 *Towards a Healthy and Safe Workforce in the Mining Industry: A Review and Mapping of Current Practice*, it was explicitly stated that “Companies which have an employee skill training or career development support in place, or a policy to improve the provision of skill training are more likely to prioritise mental health and well-being, physical health and safety, and workplace culture and sexual harassment” (Duncan et al., 2022, p. 45).

Recommendations:

- Assess existing policy or develop policy to improve skills training for employees and provide on-the-job training for career development.
- Assess and strengthen links between mining companies and regional VET and educational providers to jointly deliver tailored in-house corporate micro courses or leverage from training courses already offered locally.
- Assess existing policy or develop policy to provide career counselling for those considering leaving the company and those wishing to retrain or build skills.

Finding 3

Only 18% of women said that they had access to paid/unpaid parental leave. Only 9% said they were able to access parent friendly rosters, 6% flexible work packages and 4% part time work.

It is well documented that caring responsibilities in the private realm can interfere with equity in the workplace. The mining workplace is a unique work environment with fly-in-fly out and drive-in-drive out requirements, long hours and regimented shift work (Bailey-Kruger, 2012). Therefore, there is a need for industry provision of flexible work packages. Part-time work and parental leave is paramount. Childcare has been identified as an essential requirement for parents in the childrearing years, and research into work and caring performed by mature age workers has also found caring for ageing, ill, and disabled family and also grandchildren impacts on workers (Constantin, 2022). The mining industry is lagging behind in effectively enforcing policies for childcare and flexible working arrangements (Kljajevic, 2015). There is an evident need to review and evaluate policy related to paid/unpaid parental leave; parent friendly rosters; flexible work packages; and part time work.

Recommendations:

- Review policy to ensure it is adequate to meet the needs of women with caring responsibilities.
- Assess the current uptake rates of these provisions (numbers, gender, age, reason).
- Conduct analysis of accessible language within policy documents.
- Implement human resource training about family friendly and flexible work policies.
- Review internal promotion of policy and develop strategies to more actively and efficiently disseminate policy to staff.
- Conduct assessment of middle management support for policy uptake by staff.

Finding 4

Two thirds of women were unable to access to safe, clean, respectable toilets (66%) or access safe, respectful change facilities (72%).

Work, Health and Safety “Managing the Work Environment and Facilities” Codes of Practice in Australia stipulate toilet requirements for staff in at a worksite. Safe, clean, respectable toilets and change rooms are a work, health and safety issue and for women, a safety issue (Bridges et al., 2019). In male dominated industries such as mining women commonly state that toilets and change rooms are often not available for women or are made exclusively for men and don’t suit women’s needs (Franco et al., 2020).

Recommendations (toilets):

- Conduct an audit of toilets on worksites to ensure the company is meeting requirements regarding the number of toilets needed for the number and gender of employees.
- Conduct an audit of the cleanliness and functionality of toilets and increase schedule of cleaning if required.
- Conduct an audit of hygienic sanitary bins in toilets.

Recommendations (change facilities):

- Conduct an audit of the available change facilities for women only. Provide these if not available and ensure that those provided are adequate for the numbers of women employed.
- Assess the privacy and safety of available and newly provided facilities.
- Establish codes of etiquette for appropriate workplace conduct around on-site facilities.

Finding 5

Two thirds of women were unable to access work uniforms designed for women's bodies.

Design uniforms made specifically for women's bodies and make these available to all women employees. Well-fitting uniforms enhance safety and improve work, health and safety, as well as comfort and manoeuvrability. One size workwear does not suit women's bodies as they are designed for men. Companies can source uniforms designed for women's bodies and appropriate uniforms do "have the ability to facilitate the integration of women in the workplace" (Bjerck, 2016).

Recommendations:

- Investigate whether uniforms specific to the company may extend to a women's range and have these designed, made, and available.
- Make ready to wear uniforms available through brands such as Tradie, CAT, and Aussie Pacific.



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Appendices

Appendix 1



Skilled Tradeswomen in the Mining Industry: Skilling-up and Working in the Regions

Participant Information and Consent

Dear Participant,

Thank you for your interest in this survey.

Before completing the survey, please carefully read the following information.

Why is the research being conducted?

This survey is part of an academic study that is investigating the issues of low numbers of women in skilled trade occupations in the mining industry and women leaving regional areas to seek work in other locations. The project aims to investigate how the mining industry can attract more women into skilled trade roles in regional areas, to support women to achieve opportunities to train and work in regional areas and to contribute to the vibrant sustainability of regional Australia.

Who is conducting this research?

Charles Sturt University researchers:

1. Dr Donna Bridges
2. Associate Professor Larissa Bamberry
3. Professor Branka Krivokapic-Skoko
4. Dr Elizabeth Wulff

What are you asked to do?

You will be asked questions about your employment, your place of origin, current work and the role of industry in supporting you to live and work in a desirable regional location.

There are no right or wrong answers; we just want to understand your situation and your opinion on it.

The survey should take around 15-20 minutes to complete.

The expected benefits of the research

The findings of this research will add to knowledge about women's employment patterns in the skilled trades in the mining industry in regional Australia. The major findings of this research will inform industry and government.

Your confidentiality

Your anonymity is vital to this research. All responses to this online survey go directly to the researchers at Charles Sturt University. No individual or identifying data will be provided to your parent organisation/employer. For the research to be valid and useful, we need honest and frank responses, made without fear or favour. Responses entered into the survey are protected under SurveyMonkey's [Privacy Policy](#) and [Security Statement](#), which can be accessed from the word links. All data will be kept in accordance with Charles Sturt University data security protocol. (This protocol can be accessed from the Ethical Standards and Complaints section below).

Employees of any mining company in Australia or internationally, are advised that their employer will not be provided information about participation by any of their employees. No organisation will receive any information regarding any of their employees and whether they choose to participate in the survey. You are under no obligation to participate and your participation will not affect your employment with your employer.

Your participation

Your participation is entirely voluntary. There is no penalty for not participating. Incomplete surveys will be deleted and not used in analysis.

Risks to you

This survey will ask questions related to your work and living situation. Whilst we do not anticipate that answering the survey questions will cause distress, you may feel some discomfort when answering questions about living and working away from loved ones.

You are not required to dwell on questions that create discomfort. We recommend that if distressed you contact Beyond Blue: [Beyond Blue](#) aims to increase awareness of depression and anxiety and reduce stigma. Call 1300 22 4636, 24 hours/7 days a week, chat online or email.

Contact

If you have any questions about the survey, please contact Co-Chief investigator, Dr Donna Bridges, email: dbridges@csu.edu.au

Ethical standards and complaints

Charles Sturt University's Human Research Ethics Committee has approved this project (Protocol number: H22087). If you have any complaints or reservations about the ethical conduct of this project, you may contact the Committee on 02 6933 4213 or ethics@csu.edu.au.

Any issues you raise will be treated in confidence and investigated fully, and you will be informed of the outcome.

Skilled Tradeswomen in the Mining Industry: Skilling-up and Working in the Regions

Section 1: Demographic Information

This data assists us to understand the range of identities and diverse experiences of women in the skilled trades. All care is taken to ensure none of the data is identifiable.

*** 1. Please specify your age group:**

- 18-25
- 26-35
- 36-45
- 46-55
- Over 55

*** 2. With which gender do you identify?**

- Female
- Non-Binary / Other
- Prefer not to say

3. What is your sexual orientation?

- Heterosexual
- Lesbian
- Queer
- Bisexual
- Other
- Prefer not to say

4. What is your marital status?

- Single
- De facto

5. Do you currently care for any of the following?

(Please select all that apply)

- Child/ren under 5 years
- Child/ren 5-12 years
- Child/ren over 12 years
- Family member with disabilities
- Ageing family member
- Other (please specify)

- None of the above

6. Do you identify as any of the following?

(Please select all that apply)

- Culturally and linguistically diverse
- Aboriginal or Torres Strait Islander
- A person with a disability
- A person suffering chronic health condition/s
- None of the above

7. What is the highest qualification level you have achieved?

- Year 10 or equivalent
- Year 12 or equivalent
- Certificate III
- Certificate IV
- Bachelor Degree
- Graduate Certificate
- Graduate Diploma
- Masters
- PhD

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**8. What skilled trade occupation/s are you trained in?
(Please list as many as apply)**

9. How would you describe the level of your main job?

- Apprentice
- Entry level worker
- Mid-career
- Experienced worker
- Leading hand
- Manager
- Experienced manager
- Executive

10. What is your average weekly take home pay after tax/net (including overtime and penalty loadings)

- Less than \$400 per week
- \$401 - \$800 per week
- \$801 - \$1599 per week
- \$1600 - \$1999 per week
- \$2000 - \$2499 per week
- \$2500 or over per week

11. How long have you been a skilled tradesperson?

- Apprentice
- Less than 1 year
- 1 - 5 years
- 6 - 10 years
- 11 - 15 years
- 16 - 20 years
- More than 20 years



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12. What year of your apprenticeship are you in?



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13. How long have you been a skilled tradesperson *in the mining industry*?

- Less than 1 year
- 1 - 5 years
- 6 - 10 years
- 11 - 15 years
- 16 - 20 years
- More than 20 years



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14. Have you worked in the mining industry in any other role/s?

- Yes
 No



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15. In what other role/s have you worked in the mining industry?

16. How long did you spend in that/those role/s?



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Section 2: Place of residence and work

17. In what type of location did you live before commencing skilled trades qualifications?

- Metropolitan area
- Regional centre
- Rural town
- Rural locality (not a town or village)
- Remote community
- Other (please specify)

18. Did you relocate to commence skilled trades qualifications?

- Yes
- No



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19. In what type of location did you undertake your training and qualifications?

- Metropolitan
- Regional centre
- Rural town
- Remote community
- Other (please specify)

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20. In what type of location do you currently live?

- Metropolitan area
- Regional centre
- Rural town
- Rural locality (not a town or village)
- Remote community
- Other (please specify)

21. Have you worked in any other locations in a skilled trade occupation?

- Yes
- No

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22. How many times have you moved locations for the purposes of work?

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23. To what extent have you been satisfied that you can live in locations *that suit you* whilst working in your trade in the mining industry?

| | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Very dissatisfied | Dissatisfied | Neutral | Satisfied | Very satisfied |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

24. To what extent have you been satisfied that you can live in locations *that suit your family* whilst working in your trade in the mining industry?

| | | | | |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Very dissatisfied | Dissatisfied | Neutral | Satisfied | Very satisfied |
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

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Section 3: Moving around for work

25. How often have you been required to move *yourself* to another location in order to gain employment within the mining industry?

Never Rarely Sometimes Frequently Very frequently

26. How often have you been required to move *your family* to another location in order to gain employment within the mining industry?

Never Rarely Sometimes Frequently Very frequently

27. If you had your choice of opportunity and location (with your current skills and experience) where would you ideally like to be located?

- Metropolitan area
- Regional centre
- Rural town
- Rural locality (not a town or village)
- Remote community
- Other (please specify)

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28. To what extent have you aspired to remain in a rural / regional place to live and work?

Not at all A little To some extent To a large extent Very much

29. Has your work required you to live and work away from family / close friends / social networks at any stage in your career?

Yes

No

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30. How many times have you been required to move away from family / close friends / social networks?



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31. Do you drive in drive out (DIDO)?

- Yes
- No

32. Do you fly in fly out (FIFO)?

- Yes
- No



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Section 4: Opportunities

33. Did the mining industry provide you with an apprenticeship in a skilled trade?

- Yes
- No

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34. Was that apprenticeship in a rural / regional area of your choice?

- Yes
- No

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35. Did the mining industry provide you with employment in a skilled trade in a rural / regional area of your choice?

- Yes
 No

36. To what extent has the mining industry provided you with opportunities to live in a rural / regional area of your choice?

- | Never | Rarely | Sometimes | Frequently | Very frequently |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> | <input type="radio"/> |

**37. What opportunities has the mining industry provided you with?
(Please select all that apply)**

- | | |
|---|--|
| <input type="checkbox"/> Part time work | <input type="checkbox"/> Paid/unpaid paternal leave |
| <input type="checkbox"/> Flexible work packages | <input type="checkbox"/> Opportunity to live and work in rural areas |
| <input type="checkbox"/> Parent-friendly work rosters | <input type="checkbox"/> Work life balance |
| <input type="checkbox"/> On-site childcare, where appropriate | <input type="checkbox"/> Safe, clean, respectful toilets |
| <input type="checkbox"/> Access to carer's leave | <input type="checkbox"/> Safe and respectful change facilities |
| <input type="checkbox"/> Equal pay rates to men | <input type="checkbox"/> Travel support |
| <input type="checkbox"/> Gender safe worksites | <input type="checkbox"/> Uniforms designed for women's bodies |

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38. To what extent is your ability to network with other women in mining important to your decision making about living and working in rural / regional areas?

Not at all important Slightly important Moderately important Very important Extremely important

39. To what extent has the mining industry provided you with opportunities to network with other tradeswomen located at other mining sites?

Never Rarely Sometimes Frequently Very frequently

40. To what extent has the mining industry provided you with opportunities for on the job training?

Never Rarely Sometimes Frequently Very frequently

41. To what extent has the mining industry provided you with opportunities for continuing education at an educational facility outside of the workplace?

Never Rarely Sometimes Frequently Very frequently

42. To what extent has the mining industry provided you with job counselling when you are considering leaving the company or moving to another location?

Never Rarely Sometimes Frequently Very frequently N/A

43. How likely are you to remain in the mining industry whilst working in a skilled trade?

Extremely unlikely Unlikely Neutral Likely Extremely likely

44. How likely are you to remain in the mining industry working in a role *other than* a skilled trade?

Extremely
unlikely

Unlikely

Neutral

Likely

Extremely likely

45. What other areas of the mining industry would you be interested in working in?

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Section 5: Open questions

46. Please comment on the benefits, opportunities, and help available to you when working in the mining industry and living in rural / regional areas:

47. Please comment on the challenges, barriers and hurdles you have faced when working in the mining industry and living in rural / regional areas:

48. Please add any further comments you would like to make:

Appendix 2 Cross-tabulation of demographics vs likelihood of staying in a skilled trade.

| | Likelihood of staying in skilled trade | | | | Fisher's exact test |
|---|--|-------------|-------------|-----------|---------------------|
| | Unlikely | Neutral | Likely | Total | |
| Location 3 categories | | | | | |
| Metropolitan | 28.6% (2) | 14.3% (1) | 57.1% (4) | 100%(7) | NS |
| Regional | 13.6% (3) | 9.1% (2) | 77.3%(17) | 100% (22) | |
| Rural | 13.2% (7) | 20.8% (11) | 66% (35) | 100% (53) | |
| Total | 14.6% (12) | 17.1% 9(14) | 68.3% (56) | 100% (82) | |
| Job Level 3 categories | | | | | |
| Apprentice/entry level | 0.0%(0) | 20% (3) | 80%(12) | 100%(15) | NS |
| Mid career | 12.5% (1) | 12.5%(1) | 75% (6) | 100% (8) | |
| Experienced | 18.6% (11) | 16.9%(10) | 64.4%(38) | 100%(59) | |
| Total | 14.6% (12) | 17.1% (14) | 68.3% (56) | 100% (82) | |
| Income (avg weekly net) | | | | | |
| \$801 - \$1599 per week | 17.6% (3) | 35.3% (6) | 47.1% (8) | 100% (17) | p=0.028 |
| \$1600 - \$1999 per week | 11.4% (5) | 13.6% (6) | 75% (33) | 100% (44) | |
| \$2000 - \$2499 per week | 6.7% (1) | 6.7% (1) | 86.7% (13) | 100% (15) | |
| \$2500 or over per week | 60% (3) | 0% (0) | 40% (2) | 100% (5) | |
| Total | 14.8% (12) | 16% (13) | 69.1% (56) | 100% (81) | |
| Qualification Level 3 categories | | | | | |
| High school | 17.6% (6) | 23.5% (8) | 58.8% (20) | 100% (34) | NS |
| Trade | 14% (6) | 11.6% (5) | 74.4% (32) | 100% (43) | |
| All else | 0% (0) | 20% (1) | 80% (4) | 100% (5) | |
| Total | 14.6% (12) | 17.1% (14) | 68.3 % (56) | 100% (82) | |
| Time skilled in the industry | | | | | |
| 1-5 years | 3.1% (1) | 15.6% (5) | 81.3% (26) | 100% (32) | NS |
| 6-10 years | 23.1% (6) | 15.4% (4) | 61.5% (16) | 100% (26) | |
| >10 years | 21.1% (4) | 21.1% (4) | 57.9% (11) | 100% (19) | |
| Total | 14.3% (11) | 16.9% (13) | 68.8% (53) | 100% (77) | |



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