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Drilling Down — Diversity in the Mining Industry

Exploring the Barriers to Gender and Indigenous Diversity in the Australian Mining Industry

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Abstract: Labour market statistics reveal that while almost all major mining sites in Australia locate in remote areas through arrangement with local Indigenous communities, the mining workforce remains overwhelming male and overwhelming non Indigenous. This paper argues that, while mining has a generalized affect on all those living and working in mining communities, "there are distinct impacts and added burdens on women because of the roles they play and their secondary status in most societies." (Tauli-Corpuz, 1997). We are not arguing that Indigenous women (or men for that matter) should be engaged in the mining workforce, but explore why Indigenous women comprise only .2% of the mining workforce. We interrogate why there has been so little attention within feminist or workforce literature on opportunities for Indigenous women in mining. The paper conceptualises a way of exploring workforce and higher education barriers and opportunities that take into account capital relations in mining that are both raced and gendered.

Keywords: Diversity,, Gender,, Labour market, Mining, Organisational Cultures, Knowledge, Productivity, Indigenous

Introduction

THIS PAPER IS concerned with the hegemony of whiteness and how it functions, discursively and ideologically as a regime of power and impacts on opportunities for work within the mining sector for Indigenous women (Moreton-Robinson, 2004). We argue that race, gender and capital interweave to construct opportunities for work for indigenous women. However, we do not simply adopt a post-modern understanding of multiple subjectivities in which to understand work in the mining sector for Indigenous women. Post-modern foci on multiple subjectivities and their intersections can exclude more subtle but imperative and underpinning analyses of race (Moreton-Robinson, 2000). Indigenous feminist writers and in particular Moreton-Robinson (2000) have interrogated the notion of post-modern subjectivities which locates the concept of 'whiteness' as ideology and practice at its core. The concept of whiteness from an Indigenous feminist perspective provides a platform for unmasking how racist ideology works historically and institutionally through agency within dominant discourses – including those of feminism - manifesting as patronising 'sympathy', racial oppression, racial discrimination and outright racism.

What is of central concern to Indigenous feminists is the way in which Indigeneity or 'race' is implicated in the lives of those perceived to be 'raced' and not reflected back on by those who are themselves not raced but 'white'. Moreton-Robinson argues that in

order to resist the hegemony of 'whiteness' and re-organize power relations in Australia, there is a need to deconstruct and racialise 'whiteness'. To paraphrase Moreton-Robinson (2004:20), Indigenous women "are never 'knowers'" within non-Indigenous texts "we are always the known", this is disempowering and racist to Indigenous women. Thus, this paper suggests that the hegemony of 'whiteness' is implicit in capital relations in mining which are both raced and gendered.

Specifically, this paper explores the type and nature of employment held by Indigenous women in mining companies. It interrogates relations between capital, race and gender occurring within both mining and Indigenous communities and their impact on opportunities for work and further education for women within the natural resource sectors.

We begin with a discussion of Indigenous Land rights to contextualise issues around ownership of land. Issues around land rights provide the basis for state legitimation, often strongly contested, for the exploration and extraction of minerals in Australia and the burgeoning work in the mining sector.

A statistical analysis of race, gender and employment in the Australian mining industry is presented to explore workforce profiles in mining and Indigenous women's representation as workers within mining sites. The paper questions why is it assumed that Indigenous women do not hold or want work within a sector, which is most likely to have profound impact on their communities and families? Further, why are so few Indigenous women represented in



the mining workforce and fewer hold senior or technical positions within the mining industry? We draw on theories of gender, race and capital to show how the minimal representation of Indigenous women in the mining workforce occurs in remote communities.

The paper concludes with a focus on the beginning movement of Indigenous peoples into Higher Education places. It investigates whether the contemporary rhetoric of an “enlightened” mining sector seeking to engage constructively in partnerships with communities will see a diversification in understanding, power, space and place for Indigenous women in the mining sector. Will such engagement be in ways that add value, respect and material benefit to the lived experience and daily circumstances of women and families in remote communities?

Background: Indigenous Peoples, Obstacles, Partners or Land Owners

To understand work within the mining sector and work for Indigenous peoples it is imperative to examine the relationship between Indigenous communities and mining companies. The relationship centres on establishing and acknowledging land rights. Before 1992 Australian governments denied that Indigenous peoples held rights to land and resources in this country. Colonial invasion had denied the very existence of Indigenous peoples claiming the continent as Terra Nullius. In 1993 what has now become the famous Mabo decision occurred when the High Court of Australia ‘delivered a judgment which transformed the geopolitics of resources in Australia’ (Howitt, 2001:205).

In essence, the judgement concluded that Indigenous Australians had rights predating the acquisition of sovereignty by the British Crown and that common law was able to recognise such rights and must do so (Howitt, 2001). Further, native title persisted with native title interest determined according to Indigenous laws and customs of those peoples who had a connection to the land but which could be extinguished by an act of government (where such an act is consistent with overriding Commonwealth law eg Racial Discrimination Act, 1975) or loss of connection to the land (e.g. loss of law and custom and death of the descendant group) (Howitt, 2001:207).

Howitt’s book *Rethinking Resource Management* (2001) provides a detailed political history of the development of diverse mining sites in Australia, the conflict and the silencing of Indigenous voices regarding rights to land, payment for use of land and access to resources extracted from the land. The current situation continues to be fraught with legal battles for land rights and features increasing attempts by mining companies to negotiate directly with Indigenous communities to circumvent Native

Title legislative claims. The settlements of such claims have been lengthy and have resulted from the complex maze of conflicting and ambiguous amendments moved to the original legislation.

Thus, the literature focusing on Indigenous peoples and mining prepared for or with the mining sector suggests a shift in perspective from viewing Indigenous peoples as ‘obstacles’ to resource development to ‘partners’ in decision-making, lands management and business development (ICME, 1999; IIED, 2002). In 1999 the International Council on Metals and the Environment argued that relations between Indigenous peoples and mining companies:

...have evolved from the old way of mere piecemeal community participation in their operations to a new way of including the community in decision-making, business development and joint lands management. For these companies the paradigm has shifted from Indigenous participation in mining to mining company participation in Indigenous community.’ (ICME, 1999:iii)

However, are we seeing a shift in paradigm or a shift in discourse and if so, in what directions? The following statements from ICME provide some basis from which to determine the current positioning of mining companies with respect to Indigenous communities: For example, the ICME has argued that:

There is also a growing corporate recognition of the business benefits that flow from proactive and positive relations with Indigenous communities...

- By engaging in consultation with Indigenous people early in the project, mining companies are able to identify risk factors earlier and develop programs to address those factors, thereby lowering the risk of the project as early as possible.
- Indigenous peoples relations programs or comprehensive socio-economic agreements can be instrumental in obtaining and maintaining necessary support for project approvals and ongoing operations.
- One company also found that assisting Indigenous people in obtaining greater security of the title provides greater security to the project, since it pre-empted the ability of squatters or settlers to override the Indigenous peoples’ interest. (ICME, 1999:v-vi)

Indigenous land rights are translated into an economic discourse that underscores the economic potential for Indigenous peoples if they work in ‘partnership’

with mining companies to reconstitute the natural environment.

Is 'partnership' the right word to describe relations, which are driven by western capitalism and are therefore economic, racialised and gendered? The new language of 'partnership' with Indigenous communities in pursuit of development obscures the inequalities of power, state legitimation and cultural distinctions in which such negotiations and agreements take place.

Moreover the word 'potential' within the discourse is clearly linked to economic potential rather than social wellbeing and other human potentials. The discourse, that is the language embedded in a political intention and meaning, treats Indigenous people as stakeholders in the land as opposed to owners of the land (Weitzner, 2002). The International Institute for Environment and Development (IIED) unlike the ICME gives precedence to recognition and respect of Indigenous culture through changing structures and predominantly international law, as opposed to, changing Indigenous peoples and their cultures to accommodate mining. IIED proposes there be resources provided to support Indigenous communities understanding the implications of joint land use partnerships with the mining sector, stating:

"In projects involving close work with indigenous knowledge, IIED must also address with partners how best to protect local rights and cultural integrity" (IIED Code of Conduct)

The discourses associated with ownership and development of land require re-examination in light of the current status of Indigenous employment in mining.

Indigenous Women and Employment within the Mining Sector

The mining sector has notoriously low numbers of female employees, very low numbers of Indigenous employees and particularly low numbers of female Indigenous employees. Historically, according to (Gawler, 2005) most Australian mining companies have made little effort to diversify their workforces. Likewise, there has been little engagement with residents from the diverse range of Indigenous communities who live close to where mines are located. Instead, employees have commonly been recruited from urban or provincial centres and relocated to mine sites for the duration of their employment, whether on short term "Fly-in Fly-out" assignment, or as 'expatriates' relocated to a purpose-built company town.

However, as we have shown above there are current shifts in the engagement strategies of the mining sector towards new discourses of "partnership" and "economic participation" to signal changes in the

ways companies relate to Indigenous community "stakeholders". For example Rio Tinto describes itself proudly as a company that "has recently developed comprehensive diversity management and community engagement frameworks for its Australian and overseas operations" (Gawler, 2005:abstract.) Yet what are the material benefits and changed community social balances that result from the new drive to diversity? Whose interests are the "partnerships" to serve?

The majority of the literature concerned with gender issues in mining employment focuses on the homogenous category of "women" and often quite unselfconsciously and specifically focuses on 'white' women's access to and experience of employment in mining (e.g. Wynn, 2001; Keegan, Kniewel and Shugg, 2001; Pattenden, 1998; Kuyekl, 2003). As Indigenous feminists highlight, identifying the category women in its generic sense is code for privileging white women's experience or situations (Moreton-Robinson, 2000).

However, drilling down the data reveals some interesting facets of detail. As stated early, Indigenous women have far less opportunities for paid work than the total workforce. In 2001, Indigenous women comprised 0.2% of the mining industry workforce (ABS, 2001) and were mostly located in intermediate clerical, sales and service jobs (27 of 126 Indigenous women workers). There were a further 18 professional and 12 associate professional female Indigenous workers in the whole of the Australian mining industry at that time (ABS, 2001). Thus, Indigenous women who are most likely to be already living in these remote areas, many as Traditional Owners with custodial rights and cultural knowledge of their Lands dating back unbroken across thousands of generations, are the least likely to be working on Australian mining sites.

The 'Women and Mining' report (Pattenden, 2000) found that all women comprised 11% of the mining workforce compared to the Australian average of 43% of women in the workforce. Further, Australian workforce data shows that on average 49% of women are in technical and professional roles across industry sectors (Wynn, 2001). The report indicated that women were more likely to be clustered in clerical and administrative jobs. Further the report demonstrates that when data is reduced to mining sites and therefore rural and remote regions only 2% of female participation in the workforce was evident. The total number of Indigenous men and women employed in the mining industry as at 1991 equalled 0.97% and in 2001 equalled 1.71% of the total number of workers in mining (ABS, 2001).

As Table 1 indicates Indigenous peoples were more likely to be in jobs that required minimal training, such as mobile and stationary plant operat-

ors, miners, truck drivers and labourers (ACSO classifications: Intermediate Production and Transport Workers; and Labourers (ABS, 2001). However, on some mine sites there are higher proportions of Indigenous employees than other remote sites (e.g.

Century Mine which is located in Far North Queensland have a higher proportion of Indigenous employees than other remote mining sites - (ie) in 2003 there were 39% of employees who were Indigenous).

Table 1: Comparison of Indigenous Workers and non Indigenous Workers in the Mining Industry Based on Australian and New Zealand Standard Industry Classification ANSIC, ABS 2001 by Occupation, 2001

Occupation ¹	% of total Indigenous workers in Mining	% of total non-Indigenous workers in Mining
Managers / Administrators	3.00	9.22
Professionals	3.82	15.85
Associate Professionals	7.82	10.43
Tradespersons/ Related Workers	16.55	20.12
Adv.Clerical & Serv.Workers	1.09	2.01
Intermediate Clerical, Sales /Service Workers	4.36	4.75
Intermediate Production & Transport Workers	50.36	32.90
Elementary Clerical, Sales & Service Workers	1.36	0.52
Labourers & Related Workers	10.82	3.33
TOTAL	100	100

¹ Based on Australian Standard Classification of Occupation, ASCO, ABS 2001

However, there is also a concomitant high turnover rate for Indigenous employees (Centre for Social Responsibility in Mining, 2004). The high turnover is partly attributable to onerous work rosters - such as 3 weeks working onsite and 1 week off (Centre for Social Responsibility in Mining, 2004). The more common work rosters in Australian mines are 2 weeks onsite and 2 weeks offsite. Further, Indigenous workers are highly represented in basic entry level skilled jobs and only a small proportion are employed in trades or other positions that require formal qualifications (ABS 2001; Centre for Social Responsibility in Mining, 2004).

As stated early, Indigenous women have far less opportunities for paid work than the total workforce. In 2001, Indigenous women comprised 0.2% of the mining industry workforce (ABS, 2001) and were mostly located in intermediate clerical, sales and service jobs (27 of 126 Indigenous women workers). There were a further 18 professional and 12 associate professional female Indigenous workers in the whole of the Australian mining industry at that time (ABS, 2001). Thus, Indigenous women who are most likely to be already living in these remote areas, many as Traditional Owners with custodial rights and cultural knowledge of their Lands are the least likely to be working on Australian mining sites.

Indigenous women remain under-represented in the workforce profile of mining companies despite

mining company policies of gender equity and 'partnerships' with Indigenous communities to gain agreements for extracting mineral wealth from Indigenous lands. Research and industry attention is rightfully starting to turn to issues of diversity within the mining industry workforce. But if we can identify that women as the generic gender category comprise only 11% of the mining workforce (compared to 43% of the national combined workforce) and Indigenous peoples as the generic racialised category comprise only 1.71% of the total number of workers in mining (ABS, 2001) - then why has so little feminist or workforce literature discussed the staggering reality that only some 0.2% of the mining workforce in this nation is comprised of Indigenous women?

The authors strongly wish it to be noted here that we are not proposing that the figure of Indigenous women's participation in the mining workforce should be higher or lower. We are not assuming that Indigenous women want more mining jobs. We are not presuming that the figure of 0.2% relates exclusively to Indigenous women from the regions where the mines exist (as the fly in, fly out principle may indeed operate for the Indigenous workforce, although we argue this to be counter intuitive.)

However we are concerned that the options for partnership, for presumed economic benefit, for material advantage, for inclusion in the determinants

of the power relations, for the space of agency and debate and engagement that figure so strikingly in the relationship between mining companies and Indigenous communities are as visible and available to Indigenous women's lives as to all others.

As Aileen Moreton-Robinson (2000:42-43) outlines in *Talkin' Up the White Woman*, it is important to uncover the blind assumptions that operate against the interests of Indigenous women's choices and presence:

The first is how feminist theory is thoroughly centred on notions of whiteness; the second is how that whiteness is implicated with white male privilege.

It is our argument in scrutinising this topic, that highlighting both the current workforce position of Indigenous women in mining and the invisibility of Indigenous women's presence in discussions about mining – raises many issues about 'white male privilege' inherent in contemporary moves to engage Indigenous communities in mining operations.

Literature on women in mining has focused predominately on the upskilling of the white woman to professions in geo-science (Wynn, 2001; Pattenden, 1998, Keegan, Knieval and Shugg, 2001;). Pattenden (1998), for example produced the primary report on gender equity in mining. However, this report does not address work and education for Indigenous women. There is a paucity of literature on mining and the experiences of both white and Indigenous women's exposure to health risks (Kuyek, 2003), violence which occur particularly within the mining culture of white machismo masculinities (Eveline and Booth 2002; Kuyek, 2003) and prostitution (Weitzner, 2001). These are aspects of daily life occurring in mining communities and powerful sites of gender relations which require exploration in the context of both Indigenous and white women's experience.

The literature about Indigenous women and mining in Australia is notably sparse. A key report, *Tunnel Vision* (2002) funded by Oxfam provides an anthology of papers by Indigenous women that exemplifies the limitation of rights to decision-making and negotiation about land, employment and education experienced by women in lands that have become mining sites. The women's arguments demonstrate that:

'Companies enter into negotiations only with men, making women neither party to the negotiations, nor beneficiaries of royalties or compensation payments – as a result women are stripped of their traditional means of acquiring status and wealth' (MacDonald, 2002:6).

Moreover, as shown above, women have least access to any of the potential benefits of mining like employment. They do however, experience increased risk of family violence, rape and prostitution 'often fuelled by alcohol abuse and/or a transient male workforce' (MacDonald, 2002:6).

Kopusar notes that on one mining site in Port Hedland in Australia approximately '5,000 jobs have been given to strangers who are flown into the town on a fortnightly basis. Few of these jobs were offered to aboriginal women or their men' (Kopusar, 2002:4).

The literature concerned with Indigenous women in mining gives emphasis to gender in the context of race. It informs us of women's experience within Indigenous communities and within mining sites that are both white and masculinised. However, it is imperative that gender and race are conceptualised as more than cultural constructions (e.g. discourse and meanings), to avoid the evacuating of gender and race as social, and therefore, economic categories (see Bryant 2001). Focusing on gender and race as economic is especially critical to an investigation of mining which is premised on capital relations. There are a range of ways in which capital can be conceptualised (e.g. Bourdieu 1993). Capital is understood (e.g. Irwin and Bottero's (2000:277) as economic and market based (subject to booms and busts) and transnational. To avoid confusion with other forms of capital the term 'economic capital' is adopted (Pini and Bryant, 2005). In this context economic capital refers to market claims which include profit, productivity, structural advantage/disadvantage and what markets will allow. The concept of market is further extended to encompass values and beliefs. This conceptualisation allows for the investigation of what beliefs are validated, and the critique of socially approved obligations, as well as opens up the inevitability of outside constraints. Thus, the concept of 'economic capital' adopted in this paper, moves beyond a focus on the market as an economic force, to one which is socially constructed raced and gendered. In other words, capital relations are both gendered and racial and these dynamic and fluid relationships of power construct and reconstruct opportunities for participation in decision-making about land use and ownership, work and education within mining sectors and among Indigenous peoples.

Beneath the surface

The categories of class, race and gender are not fixed and stable. They are as Durie (1999) goes on to argue "mutually constituted and constituting of each other". While it is not possible to canvass the theoretical underpinnings of either postcolonial theory or critical

whiteness studies for the purposes of argument in this paper we believe that it is important to establish a basic theoretical take on the gender issues under discussion. While Indigenous women share the experience of patriarchy within Indigenous cultures, the focus on multiple subjectivities and their intersections can exclude more subtle but imperative and underpinning analyses of race (Moreton-Robinson, 2000). Moreton-Robinson (2000; 2004) has interrogated the notion of post-modern subjectivities which locates the concept of 'whiteness' as both ideology and material practice at its core. The concept of interrogating 'whiteness' from an Indigenous feminist perspective actively brings the "taken for granted" of racism embedded in normative feminisms into view. Critical whiteness studies draws attention to the fact that non Indigenous peoples maybe "sexed" but not "raced" - or else racialised in such a way that they become 'invisible' (to themselves).

Moreton-Robinson (2000; 2004) peels back the white veil to uncover ways in which 'mainstream' feminist theory is centred on the notions, material circumstances and experiences of non Indigenous women. From here it is possible to see the domination of 'whiteness' as intrinsically tied to white male privilege and indeed class.

As Maureen Perkins argues (2004) "seeing all colour, including white, and challenging colour's power to demarcate boundaries of community goes hand in hand with naming the hypocrisies of the past, " or indeed as this paper argues helps bring into view the hypocrisies of the present regarding whose land, whose jobs and whose capital is accumulating, developing, reaching potentiality or conversely, being exploited in remote areas through mining.

Discussions of gender oppression often exclude or ignore discussions of white privilege. While new Indigenous feminist writings like those referred to above uncover the centrality of the subject position of 'white middle-class woman' at the core of much gender analysis, class is not given the same rigour. Extracting the "middle-class" out of "white middle-class woman" is another and hugely challenging part of the story which has lain dormant, a rich vein yet to be explored. Three authors Elder, Ellis and Pratt (2004), however, writing from the Indigenous feminist standpoint, examine capitalist governmentality in relation to Indigenous people and migrants. They focus on the technologies of control that serve to further marginalise those already impoverished under the trajectories of capital accumulation. They suggest that whiteness is "managerial, invisible and normative" (2004-221). They argue that "getting white people to see their power and then, relinquish it will be a continual process" (221). In her work on the social construction of whiteness in Australia, Frankenberg argues that the white or non Indigenous

experience is a "complexly constructed product of local, regional, national and global relations, past and present ...and ...it is also a relational category, one that is co-constructed with a range of other racial and social categories, with class and gender." (1993: 236-7). She argues that this relationship however will be fundamentally asymmetrical as the term whiteness denotes the production and reproduction of "dominance rather than subordination, normativity rather than marginality, privilege rather than disadvantage."

According to Gawler (2005) as mentioned previously in this paper, most Australian mining companies are now making efforts to diversify their workforces and see significant workforce gains for the diverse range of Indigenous communities close to where mines are located. Most of the larger companies have made public commitments to engage with Indigenous peoples and various engagement processes have been established at the local level, and "a growing number of operations are adopting formal community relations plans and management systems...enlightened companies have extended beyond the subsidy and grant-making paradigm in supporting local Indigenous communities, to strategies based on sustainable economic participation, inclusive of direct employment and local enterprise facilitation". (Gawler, 2005).

The notion of "enlightenment" in the context of the debate about women in mining is an interesting one, conjuring up the genie of the rational discourse which underpins a scientific, linear and patriarchal approach to "inclusivity". It is an ironic choice of words in the context of a discussion about the restoration of some equity in the grossly disproportionate power between two such divergent communities of interest.

To use Lillian Holt's wry and mischievously apt quoting of Aristotle "there is nothing so unequal as the equal treatment of unequals" (Holt, 1999-39).

Higher Education the Way to Economic Capital

We turn now to look at the future shape of the mining workforce and the realities that lie beneath the "enlightened" rhetoric about partnerships and economic benefits that might flow to Indigenous communities and Indigenous women in particular from locally negotiated partnership arrangements with mining companies.

Currently Indigenous Australians remain amongst the most severely disadvantaged peoples in the world and comparatively the poorest group in one of the richest Western nations:

- Life expectancy at birth – 76% of other Australians.
- Imprisonment – 16 times higher than other Australians.
- Unemployment – almost six times higher.
- Hospital admissions for women following violent acts – 24 times higher.
- Median family income – 68% of other Australians

Each of these statistics which “we so glibly repeat” as Jackie Huggins states – “in fact many Australians have heard them so many times they no longer penetrate at all – each of them provides an explanation for why kids drop out of school, or don’t connect with school or don’t see school as being of any value to them.” (Huggins speech Dare to Take Our Hand, 2003)

The comparatively severe educational disadvantage of young Indigenous Australians – only some 10% of whom complete high school – has implications for the future supply side of tertiary qualified Indigenous peoples in the engineering and technical occupations in demand in the mining industry. This raises major issues for the participation of Indigenous communities in sharing the ‘benefits’ of local mining jobs or either economic or enterprise development opportunities.

Mary Ann Bin-Sallik (1993:40) argues that it is now incumbent on higher education institutions to “engage in a deliberate process to deconstruct what they have constructed” by ensuring Aboriginal and Torres Strait Islander peoples have access to all dis-

ciplines. She argues it is necessary to mandate improved outcomes in sciences that position Indigenous women and men for full and adequate participation on their terms in all areas of the economy. A Bin-Sallik et.al (1994a,b) journey through the gradual rise of Indigenous participation in the humanities and social sciences, noting the inroads made by Indigenous women in the areas of nursing and teaching but laments the lack of change in participation rates for Indigenous women in the engineering or technical fields. The workforce picture as a whole shows the major disproportionate burden of unemployment and low skilled jobs faced by Indigenous peoples:

Currently (ABS, 2005) 73% of all students continue studying to Year 12, whereas for Indigenous students, the figure is less than half at 36%. The unemployment rate for non Indigenous peoples is around 3% and for Indigenous Australians (including CDEP) the rate is 44.1%.

If we consider the current trends in Higher Education for Indigenous Australians (see Table 2) a further concern emerges – in addition to the poor retention levels already cited above Indigenous people’s representation in higher level qualifications is uniformly low. Indigenous people aged 15 years and over were less likely than non-Indigenous people of the same age groups to attend university (3% compared with 5%). For Indigenous people aged 18–24 years, this rate is significantly lower than for non-Indigenous people (5% and 23% respectively) behind non Indigenous cohorts.

Table 2³ Indigenous people's post-school qualifications, 2001

Highest non-school qualification, percentage of people aged 15 years and over –

	Indigenous	Non-Indigenous
Postgraduate degree	0.28%	1.91%
Bachelor degree	2.26%	10.23%
Graduate diploma	0.36%	1.44%
Advanced diploma / Diploma	2.49%	6.29%
Certificate	9.38%	16.43%
Other / Level not determined	2.76%	3.56%
No qualification	72.14%	55.30%
Not stated	10.33%	4.84%

Table 3 indicates that 49.9 % of non-Indigenous Australians 18 years or over had no non-school

qualification compared with 71% of Indigenous Australians in the same age cohort.

³ Source: *Human Rights and Equal Opportunity Commission 2003*, A statistical overview of Aboriginal and Torres Strait Islander peoples in Australia, viewed 19 January 2005.

Table 3: Highest level of schooling completed, 2002 95

Level completed	Indigenous (%)	Non-Indigenous (%)
Year 9 or below	33.4	15.8
Year 10 or 11	26.9	18.8
Year 12	10.7	15.3
No non-school qualification	71.0	49.9

Turning to the field of study for Indigenous students in Higher Education (see Table 4) we see a pattern

that does not auger well for the visions of Indigenous economic growth through mining:

Table 4: Indigenous Higher Education Students, By broad field of study and level of course - 2001

Field of study	Postgraduate degree	Postgraduate diploma/graduate certificate	Bachelor degree	Associate degree/diploma and advanced diploma	Other award courses	Enabling courses	Total
Natural and physical sciences	18	9	196	1	26	-	250
Information technology	6	3	127	2	-	-	138
Engineering and related technologies	5	1	92	2	-	-	100
Architecture and building	5	2	44	-	-	-	51
Agriculture, environment & related studies	10	14	89	27	2	43	185
Health	52	74	663	213	2	3	1,007
Education	81	84	959	317	7	10	1,458
Management and commerce	65	41	483	64	7	-	660
Society and culture	169	39	1,759	436	18	178	2,599
Creative arts	27	11	340	72	-	44	494
Food, hospitality and personal services	-	-	-	-	-	-	-
Mixed field programmes	-	-	3	2	6	636	647
Non-award	-	-	-	-	-	-	14
Total(a)	438	278	4,494	1,136	68	914	7,342

(a) The data take into account the coding of combined courses to two fields of study. As a consequence, counting both fields of study for combined courses means that the data in the total row may be less than the sum of the data aggregated down each column.

Source: Department of Education, Science and Training, 'Students 2001: Selected Higher Education Statistics'.

Vocational education is an important pathway to employment in mining in the remoter regions. Some 27% of Indigenous clients were located in capital cities compared with 55% of all clients, while a further 27% of Indigenous clients were located in remote areas compared to only 4% of non Indigenous. In 2001, 53% of Indigenous clients in the vocational

education sector were male. In all geographic regions, the number of male Indigenous clients outnumbered females.

In urban locations education is a key indicator of employment but Aboriginal peoples and Torres Strait Islanders lag well behind the overall population in educational attainment. Even where improvements

are occurring in the Aboriginal and Torres Strait Islander population, as in increasing numbers with Bachelor degrees or higher, or in Year 12 retention rates, improvements in the overall population mean that Aboriginal peoples and Torres Strait Islanders are not "catching up" as quickly as might otherwise be the case.

Conclusions

What space will there be for Indigenous women in remote communities where mining operations fundamentally change the local economy?

This paper has explored some of the barriers that limit Indigenous people generally and Indigenous women in particular from participating in the mining workforce. We are not arguing that Indigenous women (or men for that matter) should be engaged in the mining workforce. It is argued however that, while mining has a generalized affect on all those living and working in mining communities, "there are distinct impacts and added burdens on women because of the roles they play and their secondary status in most societies." (Tauli-Corpuz, 1997). We suggest that these gendered effects are played out within mining communities and reproduced by employment patterns in the mining sector. In traditional Australian Indigenous cultures "there are places where men cannot walk because women have ownership of the space" (Kopusar, 2002). However in remote communities today in Australia, Indigenous communities are increasingly exposed to the major impacts of mining on their Land. We argue that not only are the employment patterns of Indigenous men in such situations far less in number and far different in occupational status and type, the situation for women is particularly problematic.

In closing, summer school specifically designed to encourage young Indigenous people into technical and professional occupations Senator Aden Ridgeway, the only Indigenous national Parliamentarian at the time made the observation that engineering for example, is of itself not a career path that many Indigenous Australians have taken in the past. He went on to stress the importance of companies and governments considering the impact of economic development on remote communities and particularly on families and young people. The summer schools for Indigenous young people such as the Aboriginal Summer School for Excellence in Science and Technology (ASSETS) run by the University of South Australia, may provide options and new pathways for young Indigenous women and men.

However the situation for Indigenous women in relation to mining is more complex. The mining industry has historically been male dominated and in

overseas research has shown that in many cases the arrival of mining in communities in remote areas with its shift to male-centric technologies has led to a loss of livelihood and social prestige for women, thereby undermining their potential role as economic workers. Further, the very nature of the mining industry, which is more or less male-dominated, precludes the participation of women. (Bose, 2004:409). In such communities extensive mining has ushered in myriad problems such as alienation of lands, loss of economic and livelihood opportunities, social and cultural changes due to a migrant population coming into the region, degradation in the physical environment due to pollution and contamination of air, dust, and water by the company's extraction and processing activities.

However, even more important is the lack of attention paid to the situations and concerns of Indigenous Australian women, whose current lack of participation within the mining sector may be a sign of disinterest - although preliminary information suggests this is not the case - or may be a sign of resistance and protest - which we would argue also requires close and urgent attention. Women's voices need to be heard within negotiations regarding mining leases. Indigenous women have the right to be custodians and combatants, recipients and beneficiaries of economic developments on their own Lands, on their terms, in their voice. Or such lack of visibility may signal a combination of barriers and constraints ranging from the whiteness embedded in much gender workforce research; the whiteness embedded in many presumptions about workforce requirements in the mining sector and/or the inherent patriarchal assumptions about gendered roles within Indigenous and non Indigenous societies.

This paper suggests that management practices and procedures in the mining sector as well as higher education policies pay greater attention to Indigenous women's lack of workforce parity in mining. We are arguing that this cannot be achieved via a management and workforce policy process that simply uses a 'quota' model of workforce employment. Indeed any management determined solution will not increase Indigenous women's workforce profile in mining. For properly informed choices and opportunities to be equitably available in the future there will need to be continual and reflexive dialogues between the mining sector and custodians of the land. The management technique required is that of 'attentive listening'. Thus, not to dig deeper, listen more carefully, ask more often, would be to leave the relations between capital, race and gender within both mining and Indigenous communities - an unexplored and uncertain resource.

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