

**What are the Opportunities and Challenges
for Women in Fly-in-fly-out (FIFO) Mining in Canada?
*An Exploratory Study***

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Abstract

The fly-in-fly-out (FIFO) mining model has significant implications for the industry as it plays an important role in fulfilling the economic, social and workforce needs of the contemporary mining industry. It has increasingly been adopted in countries such as Canada and Australia, but is the current nature of the FIFO model challenging the place women have achieved in the mining workforce? Research in the mining and oil and gas industries reveals that major sources of stress for fly-in-fly-out mining workers are the times of parting and of reunion, the challenges in defining roles within the family, parenting, and conflict between spouses over the use of the leave time and money. So how are women in the industry coping with the FIFO schedules and consequent intermittent relationship with families and partners? How is the mining industry adapting to recruit and maintain female employees in FIFO operations?

This paper describes an exploratory study conducted in Canada, which intended to provide some initial insights that might help us answer the questions above. There are several inferences made from this exploratory study. It is clear that FIFO poses significant challenges for both female and male workers. It is largely seen as rigid, extremely challenging for employees with young families and workers who are single mothers, and it is generally incompatible with starting a family and caring for small children. FIFO creates severe stress on relationships and on workers psychological well-being. It seems to be indeed harder for women, since they are often in lower paying positions and therefore have less financial reward for the FIFO lifestyle. On the other hand, FIFO creates the opportunity for young women, including Aboriginal women, to jump-start their careers, as well as opportunities for mature women to work while pursuing other personal interests during their time off.

This paper concludes with recommendations to improve the FIFO system in order to increase the ability of mining companies to hire and retain women of all age groups, reach corporate diversity goals as well as human resources needs.

1. Introduction

Evolution in mining and transportation technologies and changes in town development standards have resulted in the apparent rejection of the concept of the “mining town” in favor of the fly-in-fly-out (FIFO) system in the Canadian mining industry (Shrimpton and Storey, 1989; Heiler et al., 2003). Fly-in-fly-out, also referred to as fly-in, long distance commuting, or commuter mines, has become the dominant approach to new mine developments, particularly in Australia and in Canada (Costa, 2004). Most Canadian FIFO employees work long shifts in compacted work schedules (usually from 4 to 14 consecutive 12-hour-days). Consequently, employees have long periods of time off, depending on the number of days they stay on site. Common rosters adopted in the Canadian mining industry are 4 days in, 3 days out (4/3 roster) and the two-weeks-in, two-weeks-out roster (2/2 roster).

Although FIFO plays an important role in fulfilling the economic, social and workforce needs of the contemporary mining industry, extended absence from home can be challenging for both male and female employees. Research in the mining and oil and gas industries reveals that major sources of stress for fly-in-fly-out mining employees are the times of parting and of reunion, defining roles within the family, parenting, and conflict between spouses over the use of the leave time and money (Shrimpton and Storey, 1986; 1991).

But is the nature of the FIFO model threatening the place women have attained in the mining workforce? How are women in the industry coping with FIFO schedules and consequent intermittent relationship with families/partners? How is the industry adapting to recruit and retain female employees in FIFO operations? This article briefly discusses an exploratory study that provides some initial insights that help us answer these questions, and concludes with initial recommendations for industry and for future research.

2. Why is it important to hire and retain women in the mining workforce?

Although the number of women in the mining workforce has increased in the last few years, women continue to be underrepresented, at 13.1% of the workforce, which is substantially lower than the national average of 46.9% (2003 figures)(MITAC, 2005). The average percentage of women in the FIFO mines that participated in this study was even lower, at about 10%.

Diversity in the workplace brings clear, tangible and measurable advantages to organizations (Pattenden, 2002). Diversity management strongly correlates with higher morale, improved public image, improved productivity and more creative problem-solving (AusIMM, 2004). An Equal Employment Opportunity (US) Commission study indicates that effective diversity management strategies significantly impacts positively on a corporation’s profitability (Gilbert and Stead, 1999). Moreover, diversity can enhance innovation because it brings together a variety of perspectives and problem-solving skills. This is important for the mining industry, particularly in areas where innovation is essential, such as in mineral exploration and research and development (Pattenden, 2002).

We would also argue that by failing to hire and to retain female employees, the mining industry is losing talent and corporate knowledge, and failing to benefit from a larger pool of non-technical and teamwork skills and emotional intelligence.

3. Study Strategy and Population

This study included telephone interviews and questionnaires. We contacted the Human Resources (HR) superintendents of five operating FIFO mines. We asked them for an interview and to distribute the invitation to participate to women working/had worked in their operations. During a period of two months, we were able to interview three HR superintendents and sixteen women who are currently working or who worked in FIFO mines. The study was conducted following the University of British Columbia guidelines on research ethics, informed consent and confidentiality.

In the group of women interviewed, 31.5% were engineers/geologists, 12.5% were in health/wellness related positions, 12.5% were in trades, and 43.75% were in administrative/financial positions. The average age was 33. Most of them were single (56%), and 12.5% had children. Half of the women interviewed were in a 2/2 roster. The other half was in a 4/3 roster or a combination of different rosters.

The HR superintendents and female employees’ opinions, our conclusions and recommendations are discussed in the next sections.

4. What are the challenges and opportunities for women in FIFO?

4.1. Superintendents’ Perspectives

“You do not only work here, you live here”
Participant’s comment

Table 1 summarizes what HR superintendents identified as major challenges to hiring and retaining women to work in a fly-in-fly-out mine.

Table 1. Major challenges to hire and retain women in FIFO operations

<i>Challenges to hire women</i>	<i>Challenges to retain women</i>
<ul style="list-style-type: none"> • Lack of skilled, qualified and experienced women for the jobs available. • Mothers of young children need a supportive spouse/extended family to provide childcare when they are at work. 	<ul style="list-style-type: none"> • Stress on relationships outside the mine • Separation guilt/feeling of helplessness, particularly for mothers • Incompatibility with mid/late pregnancy stages and caring for infants • Difficulty to establish a regular lifestyle

4.2. Perspectives from the Female Workforce

Table 2 lists the main advantages and disadvantages identified.

<i>Advantages</i>	<i>Disadvantages</i>
<ul style="list-style-type: none">• Financial rewards, because salaries are perceived to be higher, or because some operations pay camp allowances and abundant overtime. Also, personal expenses are dramatically reduced when on site for extended periods of time.• Long periods off lead to a more fulfilling family life when at home• Stronger sense of community, because since the workforce spends several consecutive days in the camp, there is more interaction and stronger bonds are formed• Opportunity to pursue other activities and goals (educational, recreational, cultural, etc.) during time-off• Services (e.g. food and housekeeping) provided in the camp are convenient and help focus on work or other activities after work	<ul style="list-style-type: none">• Long time away affects family and personal life negatively and makes it problematical to have children• Rigid work schedules results in important family and community events been missed• Nomadic lifestyle poses challenges to social life and to wellbeing• Generally, mine camps often provide very little privacy (rooms and bathrooms are usually shared)• Some overtime is unpaid

“Stress stays easily at work and does not follow up at home”
Participant’s comment

Most of the women’s concerns are about future plans for family/children, the risk and discomfort of frequent air travel and a perceived risk of sexual harassment.

“You can’t have kids”
Participant’s comments

5. Is the nature of fly-in-fly-out model challenging diversity goals?

It is clear that FIFO poses significant challenges for both men and women. FIFO creates severe stress on relationships and on employee's psychological well-being. FIFO is largely seen as rigid and extremely challenging for single mothers and employees with young families.

FIFO seems to be indeed harder on women. It is generally incompatible with starting a family and caring for young children. Women rarely are in the higher paying positions and therefore have less financial rewards for the FIFO lifestyle, particularly when they need to pay for childcare. Moreover, because women are, more often than not, the main provider of childcare and homecare, FIFO lifestyle often causes separation guilt and feelings of helplessness.

*“ When personal issues arise at home, (I am) unable to leave job
due to commitment unless serious situation”*

Participant's comment

On the other hand, FIFO creates the opportunity for young women, including Aboriginal women living in remote locations, to jump-start their careers, and opportunities for mature women to work while pursuing other personal or professional interests while off work.

*“I have been able to experience very much because of my interests outside of work.
Having the money and time to pursue them has changed
the person I was when I started”*

Participant's comment

6. Preliminary Recommendations

From the four mines that participated in this survey, none seem to have adopted policies aimed specifically at hiring and retaining women employees, except for the maternity leave benefits. Mine operations, however, have made efforts to improve physical facilities for women including sleeping quarters, bathrooms and women's dries. One mine hired a Social Coordinator (working on site) to address FIFO challenges faced by all employees.

Preliminary recommendations emerging from this study are:

- a. The establishment of reliable standards and policies regarding maternity and family issues (including monitoring and periodic evaluation);
- b. The improvement of flexibility in schedules, rosters and work opportunities available to pregnant women or women who just returned from maternity leave;

- c. The establishment of mentorship programs and more creative personnel policies that support employees with young families; and
- d. Orientation programs for new employees that include a family orientation aspect as well.

7. Opportunities for Future Research

To maintain sufficient focus and manageability in this study, we selected a relatively small sample that was able to describe the challenges and opportunities for women in FIFO operations. Therefore, we did not intend to make conclusive generalizations on certain aspects of FIFO. However, the quality of the data collected provides some strong indications on the issues faced by female employees that need to be addressed and areas for future research. Our next step would be to interview women who deliberately chose not to work in a FIFO mine, or who have quit a FIFO job and left the mining industry. It would also be desirable to include the experiences and perceptions of women working for contractors as well as male employees. A more inclusive population frame will certainly provide a greater understanding of the challenges women face when taking a FIFO job.

8. Final Remarks

FIFO creates a very unique work environment where professional and personal life boundaries are often unclear. Relationships are more intense when teams work and live together for long periods. Indeed most of the challenges posed by FIFO seem similar to both male and female employees.

There is very little research done of the adequacy of roster lengths. Our study indicates that the 2/2 rosters seem more acceptable for women who are single, not planning to start a family, and women who have a mature family. For women with young families, the shorter rotations seem more manageable.

In conclusion, there needs to be a larger and more inclusive discussion of the opportunities and challenges of FIFO and how it could be improved for all. FIFO creates opportunities for professional growth and financial independence, particularly for women in remote northern communities. More flexibility in rosters, reliable policies and standards regarding maternity and family issues, and the establishment of a work environment that is welcoming and supportive of young families should go a long way in making the system more friendly to women of all ages.

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