The Rotational Workforce in the Athabasca Oil Sands Area
Rotational Workforce in the AOSA

Rotational work is not new to Alberta or other provinces within Canada. Given the location, nature and magnitude of oil sands development, rotational workers have been, and remain, a constant feature of oil sands activity in northern Alberta.

Over the past decade, rotational workers have grown in number in the Athabasca Oil Sands Area (AOSA) due to industry’s major expansion in the early to mid-2000s. Although initially these workers were used to support temporary activities (construction and maintenance), they have been increasingly used in longer-term operational activities, as industry’s labour needs increase and development extends away from the service centres. Since the economic downturn in 2015, and as projects have transitioned from construction to operations and maintenance, the workforce requirement has decreased.

In fall 2017, the Oil Sands Community Alliance (OSCA) commissioned Nichols Applied Management (Nichols) to carry out research on the oil sands rotational workforce in the AOSA. The goal was to understand the size and nature of the workforce as well as to articulate industry’s current and anticipated use of Fly-In Fly-Out (FIFO). The last time an in-depth rotational workforce survey was done by Nichols was in 2007. The research was specifically targeted at a significant subset of the rotational workforce, namely workers engaged in work related to oil sands operations. The research aims to inform governments, communities, businesses, service providers, camp operators, and others on the nature of rotational work.

WHAT IS A ROTATIONAL WORKFORCE?

Although rotational workers might stay in camp or in Fort McMurray, the one defining characteristic of these workers is that they do not commute home on a daily basis to their permanent residence.

Rotational workers are not unique to the oil sands industry. Other sectors such as hospitality, health, and mining also use such arrangements. Rotational arrangements include specific number of days on (at work) and days off (off work) and scheduled daily shifts (day, night or other).

History of Rotational Workforce

In the early 2000s, stronger oil prices resulted in a change in the economics of oil sands development. Between 2000 and 2008, there was a substantial population growth in the Regional Municipality of Wood Buffalo (RMWB) from 53,406 to 103,334.1

In 2005 and 2006, the RMWB identified housing as the most significant challenge and that rapid population increase was straining local infrastructure and service levels. The RMWB called for a moratorium on growth and suggested the pace of development in the RMWB be slowed to permit infrastructure growth at a more orderly and carefully planned rate. In the following years, the RMWB recognized that work camps were an important tool to address chronic housing shortages in the region. Industry has invested hundreds of millions of dollars in infrastructure to support a rotational workforce, justified by years of planned future operational use. Aerodromes can cost up to $100 million to build while full-service lodge facilities can cost up to $250 million.

Industry has historically been, and continues to be, committed to hiring locally by offering competitive salaries and other incentives to encourage workers to reside in accommodations other than work camps in the area. Most projects have bus or shuttle trips to Fort McMurray and other communities within the region. Ranging from daily to weekly, these trips transport workers from their homes at the beginning or end of their shift rotations.

Quick Facts

Currently, 15 oil sands projects utilize FIFO for operations. These 15 projects represent roughly 60 per cent of total oil sands production capacity in the region.

While a couple of smaller projects are within commuting distance, the majority of those projects are remote, located outside of a daily sustainable commuting distance for shift workers. One-way door-to-door travel times range between 90 minutes to three hours.

Eleven of the 15 oil sands projects utilize seven private aerodromes. In addition to the private aerodromes, substantial FIFO activity utilizes the Fort McMurray International Airport. A 2017 survey states that 40 per cent of passenger movements through the Fort McMurray airport were rotational, regularly commuting oil sands construction, operations and maintenance workers.

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1. Fort McMurray International Airport, Economic Impacts Associated with Current Air Services, p. 3.
Who are the AOSA Rotational Workers?

AOSA Rotational Workers Are:

- The operations-related rotational workforce is overwhelmingly male (85%) and mostly married (71%).
- Approximately 13% of operations-related rotational workers identified as either First Nation (7%), Métis (5%), or Inuit (1%).
- Nearly half (47%) of operations-related rotational workers are over the age of 44.
- Approximately 5% of respondents live in the AOSA region (mostly in Fort McMurray), and 1% live in Lac La Biche.
- Just over 60% of operations-related workers come from Alberta, excluding the AOSA.
- Roughly one-third (32%) of respondents are from elsewhere in Canada. Of those rotational workers whose place of residence is elsewhere in Canada, roughly four in ten (42%) reside in British Columbia.
- Nearly 60% of operations-related rotational workers have worked more than 5 years in the region, with over one-quarter (26%) having worked more than 10 years in the region.

In total 2,275 surveys were completed either online or in-person at work camp sites.
Benefits of a Rotational Workforce

Oil sands companies remain committed to hiring locally and developing the regional labour force, while also using workers from outside the region to effectively staff their operations. However, there are several reasons why a company may choose to use a rotational workforce.

**REMOTENESS**
The nature, magnitude and remoteness of the oil sands industry drives the need for a rotational workforce. The average driving distance from most operation sites to Fort McMurray is 120 km. Including the time for neighbourhood pick-up and drop-off routes, one-way trips range from a minimum of 90 minutes to more than three hours. This does not factor in morning and evening peak traffic and weather conditions.

**SAFETY**
Maintaining worker safety is a key driver for camps. A daily commute by vehicle would add a minimum of three hours onto a 10 or 12-hour workday, introducing performance and safety concerns. Most companies consider the safe daily limit for driving for 12 hour shifts to be 60 minutes per one-way trip. Oil sands operations on the edge of daily commuting find that many workers consider the fatigue of a 12-hour shift combined with the daily commute unmanageable, and request to be in camp during shift.

**QUALITY OF LIFE**
A key advantage of rotational work programs is that they permit employment at projects while allowing workers’ families to remain in their current communities and access existing support networks. While these types of support networks are available in Fort McMurray, relocation causes disruption in the lives of workers and their families and requires ‘building from scratch’ a network of friends and other social supports. That is perhaps the reason 52 per cent of operations-related rotational workers said they would not consider moving to Fort McMurray.

The ability to spend quality time with family at home is also identified as a key advantage, not as easily accomplished for workers returning home daily after 12-hour shifts plus commuting time. Rotational work, with regular travel and being away from home is not for everyone. However, for a certain subset of workers, this arrangement is preferred. Companies report high satisfaction levels regarding the rotational aspect of their workforce.

**FIFO AND LOCAL WORKFORCE CAN CO-EXIST**
A FIFO workforce and a local workforce are both necessary and can co-exist. Every oil sands worker has unique circumstances defining how they choose to live, and nobody can dictate these choices. The most prevalent reasons for not relocating to Fort McMurray are the perception that housing is too expensive and that their immediate family is settled in their home community. Rotational and residential employment are complementary approaches in holistic workforce management, where employment options are governed by personal circumstances, preferences and availability of skilled workers.

**REDUCING THE MUNICIPALITY’S ECONOMIC BURDEN**
Recently, public debate in the community has arisen regarding the financial benefit of encouraging rotational workers to relocate to the RMWB. However, OSCA’s research indicates that residential development is not a net contributor to municipal revenues. Community residents typically consume more in programs and services than they contribute in property taxes. Conversely, industrial land users generally require few municipal services and, due to combined high assessed values and differential tax rates, contribute more in property taxes than the cost of the services they consume.
Revenue generated per residential housing unit is 95 per cent less than the costs to the municipality of extending services to the residents of those units. In 2015, average residential tax paid per household was $950. In comparison, the average municipal expenditure per household was estimated to be $16,600.

The increased municipal expenditures from the forced relocation of rotational workers would result in a net cost for the RMWB annually. In other words, despite the associated business activity that comes with increased population, the current municipal tax structure in the RMWB is such that the net fiscal impact of increased local population on the municipality is negative.

The current rotational model allows the municipality to collect taxes at relatively higher non-residential rates, while not requiring the RMWB to offer services to the workers that stay in camps. Hence, the RMWB receives most of the financial benefits of development with minimal costs. Additionally, the elimination of rotational workers would eliminate selected camps and all aerodromes, eroding the non-residential assessment base of the RMWB, and further reducing the municipality’s ability to generate tax revenue from non-residential sources.

OPERATIONS-RELATED ROTATIONAL WORKERS PROVIDE POSITIVE ECONOMIC IMPACTS TO THE COMMUNITY

When staying in the region during their shift, rotational workers do make occasional trips to Fort McMurray. The activities they engage in and the purchases they make have an economic impact on the regional economy.

Our research indicates that operations-related rotational workers will spend between $82 and $93 million in Fort McMurray in 2017.

- A rotational worker makes an average of 0.18 visits per week to the community. However, 84 per cent of all activities and services undertaken or used by rotational workers are in the private sector (i.e., food, retail, hospitality), demonstrating the predominant nature of commercial transactions and activities. Only 16 per cent of the total trips made to Fort McMurray are attributed to the public sector (i.e., medical services).

- The activities that rotational workers engage in when they are in Fort McMurray and the purchases they make have an economic impact on the regional economy. On average, a camp-based rotational worker spends roughly $436 per visit to Fort McMurray.

Based on these findings it is estimated that, on an annual basis, operations-related rotational workers will spend between $82 and $93 million in Fort McMurray in 2017. This spending translates to:

- $33 to $36 million in local gross domestic product (GDP) and an additional $20 to $22 million to the rest of the province (i.e., $53 to $58 million in total); and,

- $18 to $20 million in local household income and an additional $12 to $13 million to the rest of the province (i.e., $30 to $33 million in total).

- In terms of employment, the annual effect of direct spending by rotational workers in Fort McMurray is estimated to generate approximately 420 to 465 full-time equivalents (FTEs) in Fort McMurray with an additional 290 to 320 FTEs elsewhere in the province (i.e., 710 to 785 FTEs, in total)5.

- According to the Fort McMurray Airport, rotational workers account for 40 per cent of monthly passenger movements at the airport6. Hence, rotational workforce roughly supports half of the economic activity currently supported by the airport – approximately $70 million in GDP and the employment of 1,580 people. The airport authority has expressed an interest in working with industry to increase passenger traffic through YMM as a means of improving and increasing route options at YMM and supporting other businesses in the region that rely on airport activity.

Conclusion

Every oil sands worker has unique circumstances and nobody should dictate how, or where, these workers choose to live. Providing choice to workers leads to increased job satisfaction, and improved retention and productivity. Rotational work is not an either/or decision. Companies remain committed to hiring locally and developing the regional labour force, while also using workers from outside the region to effectively staff operations. Rotational work and residential employment programs are complementary approaches in workforce management, where employment options are governed by personal circumstances, not determined by employers.

5. These estimates relate to direct spending by operations-related rotational workers and do not consider the spending of other types of rotational workers (i.e., construction workers) or the spending of industry operators to support feeding and housing the region’s rotational workforce (i.e., camp-based accommodation, amenities, and services).

6. Fort McMurray International Airport.
In addition to OSCA’s four principal focus areas, we’re also supporting industry and stakeholders on other issues such as industry competitiveness and environmental performance.