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# Ready to go! The next generation of mobile highly skilled workforce in the Russian petroleum industry



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#### ABSTRACT

This article provides insights into the motivation of future highly skilled workers to become long-distance commuters (LDC) (i.e. fly-in/fly-out [FIFO]/drive-in/drive-out [DIDO]) to remote Arctic and Subarctic petroleum extraction sites. The study draws on a sample of students from long-distance commuter families, who study at the Ufa State Petroleum Technical University (UGNTU) in the Republic of Bashkortostan: a primary LDC sending region in Russia. The study is based on ethnographic qualitative and quantitative research. It shows that LDC shift work is seen as both a socio-economic necessity and a prospering career by half of the respondents. The readiness for long-distance commuting was nearly equal among male and female students. Furthermore, it is an attractive form of gaining a livelihood, especially in rural regions like those in the Republic of Bashkortostan with a competitive labour market and poor socio-economic development. On the other hand, the repeated separation from family, long travel times, inconvenient life in camps as well as health and safety concerns were cited as deterrents for the other half of the respondents. The article highlights disparities between urban and rural areas as well as between those in full-time LDC and those commuting to earn additional income to supplement their regular agricultural work.

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#### 1. Introduction

The extraction and production of crude oil and natural gas as well as the construction of adjacent infrastructure is dependent on the location of resource deposits. Many of these sites are located in remote and sparsely populated regions, making the availability of an inter-regional mobile labour force crucial to the sector worldwide. Hence, sending regions of workforce and regions of extraction are socially and socio-economically entangled (Saxinger et al., 2016). This is the case in the Russian Federation (RF), with the *Far North*<sup>1</sup> as a worker receiving region and the Republic of

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Bashkortostan as a worker sending region. This article is focused on *long-distance commuting* (LDC) *shift work* (also called *fly-in/fly-out* (FIFO), *drive-in/drive-out* (DIDO) operations, and *vakhtovy metod* in Russian). This type of shift work involves cycles of living and working in camps in the resource region, followed by a period of time off in which workers return home. LDC has direct impacts on social relationships, lifestyles, socio-economic conditions and spatial configurations of the involved workforce.

This article explores the motivation of young future workers for leading this highly mobile life. It looks at the willingness of students from the *Ufa State Petroleum Technical University* (UGNTU<sup>2</sup>) (Republic of Bashkortostan, RF) to take up a career working as LDC personnel. The purpose of the study is to identify the factors that influence future potential employees in their job and mobility decisions. In order to understand their decisionmaking, the following research questions were asked: What are the configurations of the students' willingness for taking up a career that requires living and working as LDC? What are the experiences of students while growing up in LDC families? How does LDC affect family relationships? Which factors influence

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<sup>&</sup>lt;sup>1</sup> In the following, the term *North* (*sever*) is used throughout the text. Both as North classified regions (the *Far North* and *Regions Equivalent to the Far North*) reach from the Kola Peninsula in the west of Russia to Kamchatka and Sakhalin in the Far East and also include enclaves such as the Altai Republic in the south. The spatial classification and the terminology of North is based on economic, judicial, political, demographic and socio-cultural aspects (cf. Stammler-Gossmann, 2007; Blakkisrud and Hønneland, 2006; Slavin, 1982). In the current Russian law, the North is defined as follows: territories with harsh environmental and climatic conditions, higher production costs and higher costs for the maintenance of settlements (cf. Nuykina, 2011).

<sup>&</sup>lt;sup>2</sup> UGNTU: Ufimskiy Gosudarstvennyy Neftyanoy Tekhnicheskiy Universitet.

students in their decision making to either accept or reject LDC as a future career path? This perspective is embedded into the socioeconomic conditions in LDC sending regions such as the Republic of Bashkortostan.

The results of this study show the willingness of a potential future workforce to become LDC workers, which is particularly informed by the experience of their parents and by their own experience as children growing up in LDC families. Their attitude towards LDC is also characterized by discourses in their home community, which are located in regions with a high proportion of LDC inhabitants. In particular, jobs requiring the long commutes to the resource rich Russian North are seen as a source of income that is higher than average compared to their home region, as well as an opportunity for sustainable career development. At the same time, depressed labour markets in many southern and central Russian regions – especially in small rural towns – mean cyclical mobility is a necessity in order to obtain any type of employment.

First, the methodological approach to this study is provided. The subsequent section introduces LDC as a method for labour force provision in remote resource extraction regions such as in the Russian North. This is followed by a brief discussion of the LDC sending region: the Republic of Bashkortostan in the Russian Federation. Analysis of the qualitative and quantitative data follows, showing how the students evaluate their parents' experience with LDC and how the students experience their family life. The next sections describes the students' attitude towards LDC in general, followed by their assessment of advantages and disadvantages of LDC work, as well as rationale for or against becoming an LDC worker in the future. The final discussion section includes recommendations for better LDC management in order to increase the motivation among students in petroleum technical fields to become mobile workers. In addition, it sums up the implications of LDC for the sending regions.

#### 2. Methodology

This research is based on a mixed methods approach consisting of a statistical survey that was conducted in 2011 with single and multiple choice questions on the willingness of becoming an LDC worker in which frequency rates were analysed.<sup>3</sup> We also draw on qualitative interviews and ethnographic observation of students from the UGNTU as well as with older, already commuting workers (field visits: 2007, 2010, 2011, and 2013 in the Republic of Bashkortostan). In addition to the twelve narrative interviews with students from the same sample, we refer to one expert interview with V. G. Martynov, rector at the *Gubkin Russian State University of Oil and Gas* in Moscow.<sup>4</sup>

The UGNTU is one of the most highly regarded universities for training specialists in various fields of the petroleum and mining sector in Russia. The 14,000 students originate from 30 countries outside of the Russian Federation as well as from 56 regions within the Russian Federation. We surveyed a sample of students at UGNTU with at least one parent who is an LDC worker. In total, 300 questionnaires were distributed among the Faculty for Oil Extraction and Mining (150), the Faculty for Automatization

(50), the Faculty for Economics (50) and, the Faculty for Pipeline Transport (50) and of these 145 questionnaires were returned. Two thirds of the survey respondents were between the ages of 18 and 20 years old, and 80% of those were in their first, second or third year at the university. The remaining 29% were over 20 years old and in their final year of a six-year programme. 69% of survey respondents identified as male and 31% as female, which reflects the approximate gender division in this sector. 73.8% of the respondents were from the Republic of Bashkortostan, the Republic of Tatarstan or other parts of southern and central Russia. 15.9% were from northern Siberia; e.g., from the Khanty-Mansi Autonomous District (KMAO), the Nenets Autonomous District (NAO) or from Sakhalin in the Far East. 6.2% were from other countries such as South America or Central Asia.

#### 3. Remote extraction sites and LDC

Owing to the geographical, geological, demographic and infrastructure conditions of the extractive industries in the Russian North, the demand for a workforce with a high mobility potential is still increasing. It will continue to do so in the future, considering the continuous shift of extraction sites to even more remote regions on-shore and off-shore in the Arctic and in Siberia.

The provision of a labour force designated for exploration, development and exploitation of hydrocarbon deposits as well as infrastructure construction creates a dilemma for remote regions. The largest and most promising deposits of crude oil and natural gas are located in the North. There are a number of key challenges regarding labour provision for the oil and gas industry in these regions. First, although a variety of vocational training facilities are located in the northern cities, the sparse population of this region cannot provide enough labour to meet the demand of the industry. Second, a dense transportation network is not feasible due to the high costs of the technical requirements for construction under permafrost conditions, and the vast distances between extraction sites and urban agglomerations; these are in many cases several thousands of kilometres (Fig. 1). Third, the expansion of numerous mono-industrial cities in the Russian North is not feasible from a national economic point of view, since the costs of construction and maintenance are several times higher than in more temperate regions (Hill and Gaddy 2003; Nuykina 2011).<sup>5</sup>

Development of remote oil and gas extraction sites is, thus, dependent on the extension and enhancement of a mobile workforce. LDC work, or so-called FIFO operations, are currently the most efficient and feasible ways to allocate a labour force to remote resource regions, including off-shore operations. Mobile labour forces like these will be even more relevant to the Barents Sea or the Kara Sea in the future (cf. Khaytun, 1982; Krivoy, 1989; Kharitonov, 2001; Martynov, 2002; Ananenkov et al., 2005; Andreyev et al., 2009). One key prerequisite for a sustainable career in this well-paid sector is the readiness to live a mobile and multi-local life on a long-term basis; i.e. becoming an LDC or FIFO worker.

<sup>&</sup>lt;sup>3</sup> Data were collected during a period of rather high and stable oil prices. Therefore, it is unclear what the motivation to work in the petroleum industry would look like today. The consequences of economic sanctions on Russia and low oil prices since 2014 have led to a decrease in investment as well as planned projects being partly put on hold. This has led to a lower demand for a highly skilled labour force.

<sup>&</sup>lt;sup>4</sup> Interview with Prof. V. G. Martynov by Elena Aleshkevich as part of the project "Lives on the Move" at the Gubkin Russian State University of Oil and Gas in Moscow 2010.

<sup>&</sup>lt;sup>5</sup> However, cities like Novy Urengoy or Nadym in YNAO are today prospering after a period of out-migration in the 1990s (Heleniak, 2008), although it is not intended to increase these towns; but rather stabilize the demography at the current size. As Thompson (2008) has shown, the economic argument for decreasing northern cities, such as it was stated by Hill and Gaddy (2003), has been outmanoeuvred by persistence on the part of the long-term residents who refuse out-migration such as it was suggested by the World Bank in the early 2000s (Nuykina 2011). For a discussion of the complexity of the complementary use of LDC work force and its impacts on northern mono-industrial towns and the structure of the local workforce, see Eilmsteiner-Saxinger (2011) and Aleshkevich (2010).

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