

The tunnels are a prerequisite for living here



Fróðskaparrit 70 (2024): 36-59
©The Author(s) 2024 Open
Access under Creative
Commons by Attribution
License. Use, distribution and
reproduction are unrestricted.
Authors and original publication
must be credited.
www.frodskapur.fo

Lessons from the Faroe Islands on how push-pull factors affect populations in small remote communities

Rico Kongsager¹, *Emergency and Risk Management, University College Copenhagen, Denmark*

Abstract

Small remote communities in the Nordic countries face unique challenges due to their geographical isolation, limited resources, and sparse population. The latter is affected by migration, which can have both positive and negative implications for the development of communities. Therefore, understanding the factors influencing migration patterns is essential for ensuring balanced regional development. This paper focuses on the population trends over the last two centuries in the Faroe Islands; more specifically, in the two small remote communities Hvannasund and Viðareiði in the Northern Islands. The overall theoretical framework applied is the push-pull migration concept. By examining the push-pull factors that drive migration patterns in these communities, the paper explores the impact on socio-economic development, and by analyzing the interplay between these factors, this study aims to provide insights into the dynamics of movements and their implications for the development of small remote communities. The main findings are that economic factors are the main push-pull factors that can explain the population changes in the investigated communities, while the social/demographic, political, and environmental factors to a lesser degree can explain the fluctuations but impact the more linear trends over time.

Keywords: Migration; push-pull factors; Faroe Islands; infrastructure; development; Hvannasund; Viðareiði

¹ E-mail: RICO@kp.dk

Introduction

Small remote communities in the Nordic countries face unique challenges due to their geographical isolation, limited resources, and sparse population. The latter is affected by migration that can have both positive and negative implications for the development of these communities. While an influx of migrants can bring economic opportunities, cultural diversity, and human capital, it can also strain local resources and infrastructure. Migration patterns are influenced by a combination of push and pull factors (Heberle, 1938; Lee, 1966), and decisions to migrate can be categorized into factors associated with areas of origin, the destination area, intervening obstacles, and personal issues (Frank & Brown, 2014). Push factors refer to the unfavorable conditions and circumstances that motivate individuals to leave their place of origin, while pull factors attract individuals to settle in new locations. Migration can thus be considered a shrewd decision by individuals to benefit from opportunities that they lack in their place of origin (Urbański, 2022). Understanding the factors influencing migration patterns is essential for ensuring balanced regional development and improving the quality of life for those who live in small remote communities.

The phenomenon of human migration, which is understood as the permanent change of residence for individuals, has occurred since the beginning of human existence (Urbański, 2022). The causes for these movements are interregional and intraregional disparities at the macro and/or micro levels. Overall, there are two types of migration: internal migration, which is the movement from one place to another in a given country, and international migration, which is the movement from one country to another (Fouberg & Murphy, 2020). The push-pull framework has mainly been applied as a concept to analyze international migration between countries; for instance, cases that include “forced” and “economic” migrants and mainly from poor to richer countries (Van Hear et al., 2017) or to places with new opportunities – such as the well-known analysis of the great transatlantic migrations of the industrial era (Thomas, 1973). However, the push-pull framework has also been used with standard microeconomics (Massey et al., 2005) to investigate the factors that lead people to move within countries, such as the original work of Ravenstein (1885, 1889), who studied internal migration in Britain.

This paper focuses on the population trends over the last two centuries in the Faroe Islands – more specifically, in the two small remote communities Hvannasund and Viðareidí in the Northern Islands. The overall theoretical framework applied is the concept of push-pull in regard to migration, which is elaborated on in section 2. By examining the push and pull factors that drive migration patterns in these communities, this paper explores how these factors impact socio-economic development, and by analyzing the interplay between push and pull factors, the paper aims to provide insights into the dynamics of movements and their implications for the development of small communities.

Regarding methodology, a qualitative approach is used, with data coming mainly from interviews (outlined in section 3) and the case study (described in section 4). This is followed by an analysis and discussion (section 5), a summary (section 6), and finally a conclusion.

Theory

Population migration has always been an important focus for academia (Abel & Sander, 2014; Hughes, 2019; Mulder et al., 2020; C. Wang et al., 2021; S. Wang et al., 2021), and literature on population migration can be traced back to the British geographer Ravenstein (1885, 1889), who summarized the characteristics and influencing factors of population migration and contended that people usually migrate to improve their economic conditions. Heberle (1938) studied the causes of rural-urban migration and found that the reasons for human migration include both push and pull factors, which was the first time this concept was formulated. Later, Lee (1966) systematically summarized the “push-pull” theory, finding that migration tended to occur because of undesirable factors in a place that pushed the population to move to other places with better conditions. Thereafter, the push-pull theoretical framework has been widely used to analyze the influencing factors and mechanisms of population migration (Niu, 2022).

The push-pull factors can be divided into economic, social/demographic, political, and environmental factors for people to migrate (Fouberg & Murphy, 2020; Khalid & Urbański, 2021; Urbański, 2022; Van Hear et al., 2017). The push factors are those associated with the area of origin; the economic push factors are, for example, overpopulation, lack of jobs, and low wages. Limited employment opportunities, lower wages, and economic disparities between rural and urban areas act as significant push factors for out-migration, and individuals may leave their place of origin in search of better job prospects, higher income, and improved living standards in more economically vibrant regions. The social push factors can be issues such as intolerance towards a certain cultural group or persecution based on religious beliefs, but it can also be limited access to healthcare, educational institutions, and cultural amenities. Adequate services and a perceived lack of social and recreational activities may prompt individuals, particularly young families, to relocate to areas offering better access to these services. As part of the social factors, there are also demographic factors, which as a push factor can be general population growth in the society or a young age structure in a community. The political push factors are dictatorship, shadow democracy, bad governance, political upheaval, conflict, (civil) war, terrorism, human rights violations, oppression of minorities, and unfair legal systems. The environmental push factors can be natural hazards and environmental degradation, such as increased intensity and/or frequency of storms, landslides, droughts, etc., or overexploitation of resources.

Pull factors are the antipole of push factors and are factors associated with the area of destination. They are the benefits and advantages offered by a location that draw people towards an area. The economic pull factors are, for instance, more and better jobs, higher wages, and the promise of a “better life” in another location. Furthermore, the availability of affordable housing, lower crime rates, and reduced traffic congestion, which are also seen as part of the economic factors, contribute to an improved quality of life and can make communities appealing to individuals seeking a higher standard of living. The social pull factors can be religious acceptance/tolerance, strong social cohesion and a sense of community, or unique cultural heritage and distinct cultural traditions. The demographic pull factors can be a stable population, population decline in general, or demographic aging. The political pull factors are democracy, rule of law, pluralism, political stability, peace, security, protection of human and civil rights, and protection of minorities. The environmental pull factors can be attractive environments, such as areas of natural beauty or areas with less intense natural hazards. Natural beauty combined with outdoor recreational opportunities can also attract people seeking an active lifestyle or a slower pace of life.

Method

Qualitative data were collected in 2021–22, mainly during four field trips to the Faroe Islands. Initially, 18 key informants were interviewed, who were: local historians, scholars from the University of the Faroe Islands (*Fróðskaparsetur Føroya*), mayors of the case communities, the director of a local assistance organization, Danish and Faroese meteorologists, and a local weatherman. This was followed by interviews with 18 villagers, which included people from both case communities, people who have been living in the area for both a long and short time, and people with different types of connection to the land/community based on ownership of a home and/or land, dependency on the local nature for their livelihood, and distance to work. The selection of interviewees also included considerations about diversity regarding age, gender, profession, education, etc.

The questions in these interviews revolved around the overall theme of the paper; that is, push-pull factors related to living in the Faroe Islands in general and in the case communities. The interviews lasted 45–90 minutes. All interviews were conducted in Danish with some words in Faroese and were recorded and then fully or thematically transcribed in English and uploaded into the qualitative analysis software NVivo. Thematic analysis, using a coding scheme with overall themes and subthemes, was applied to provide a rich, detailed, and complex account of the collected data (Clarke & Braun, 2016). Population data from Statistics Faroe Islands was used in the description of the case area and in the analysis/discussion. Furthermore, secondary data were

gathered through literature available online, at the library in Klaksvík, or in private collections in order to provide context and interpret the interviews.

Case study area

The Faroe Islands is a small archipelago in the middle of the North Atlantic located 320 km northwest of Scotland, midway between Norway and Iceland. The land area is 1,399 km², which is comprised of steep mountains, upland hills, valleys, spectacular cliffs, and narrow fjords (Raymond et al., 2021). It is an autonomous territory within the Kingdom of Denmark. The Faroe Islands has a population of 54,503 (May 2023), who live in 114 villages (of which 57 have fewer than 100 inhabitants) spread over 16 of the 18 islands. Forty-three percent of inhabitants live in the capital Tórshavn and its surroundings (Statistics Faroe Islands, 2024). The specific area selected for this case study is two municipalities, Viðareiði and Hvannasund, located in the most northerly islands (Figure 1).

Figure 1

The Faroe Islands (left) and the case area (right) (Source: OpenStreetMap).



Viðareiði and Hvannasund

Viðareiði (Picture 1) has 346 inhabitants and is in the northern part of Viðoy, and the settlement is the northernmost in the Faroe Islands. It is in a 1.5-km wide valley depression with high mountains to the north and south. The Viðareiði valley is wide and fertile and has therefore been labeled the queen of the Faroese small settlements (bygdin in Faroese) (Schei & Moberg, 1991). From the village, all the six islands that go under the name the Northern Islands (Norðoyar in

Faroese) are visible. There are small rudimentary landing sites west and east of the village for smaller boats that can be utilized if the weather conditions allow – and despite the uncertain landing conditions, Viðareiði was for a long time the center of the Northern Islands until Klaksvík took over this position around the 1950s (Schei & Moberg, 1991). The settlement has a road connection with the Northern Islands's regional center and fishing capital, Klaksvík (the country's second-largest town, with 10% of the Faroese population and approximately 30% of the Faroese export), via a dam and tunnel system, and there is also a bus connection several times a day. Through the Viðareiði tunnel, which opened in 2016, Viðareiði can be reached from Hvannasund without the risk of landslides, which before could cut off the village for weeks. There is a hotel with a restaurant, a school, a kindergarten, and a smolt station (salmon hatchery). The village is considered one of the oldest small settlements, and the scenery around the village is beautiful but also dramatic (Rólantsson, 2000; Schei & Moberg, 1991).

Hvannasund (Picture 1) has 415 inhabitants and consists of two villages: Hvannasund, located on the west side of Viðoy, and Norðdepil, on the east side of Borðoy. Hvannasund and Norðdepil have together formed a single town since the construction of the causeway between them in 1974. Hvannasund has, like most old settlements in the Faroe Islands, developed from a farming community to a modern fishing community. Economic life, which was earlier dependent on whaling and traditional farming, is today dependent on two large smolt stations and a fish factory (started in 1974). The harbor in Hvannasund is jointly owned by the municipalities of Hvannasund and Viðareiði. From Hvannasund, there is a daily connection across the Fugloyarfjørður strait to Svínoy and Fugloy via a small ferry. Norðdepil consists of no more than a couple of narrow streets, which date back to the reforms of 1866 when the land was made available for settlement and cultivation. Life in Norðdepil was previously tougher than on the sunnier southern side around Hvannasund, where land has been cultivated since the Reformation. The harbor was Norðdepil's lifeblood, whereas more climatically favored Hvannasund was able to exploit the flat land around the sound for farming. In Hvannasund municipality, there is a grocery store, kindergarten, and primary school (Proctor, 2019; Rólantsson, 2000; Schei & Moberg, 1991). Earlier, the only land route to Klaksvík was a difficult climb across two steep mountains. However, times have changed, and since 1967 two tunnels have connected Hvannasund with Klaksvík, which is 10 km by road (Schei & Moberg, 1991).

Picture 1
Viðareiði (left) and Hvannasund (Right). Photos by author.



Analysis and discussion

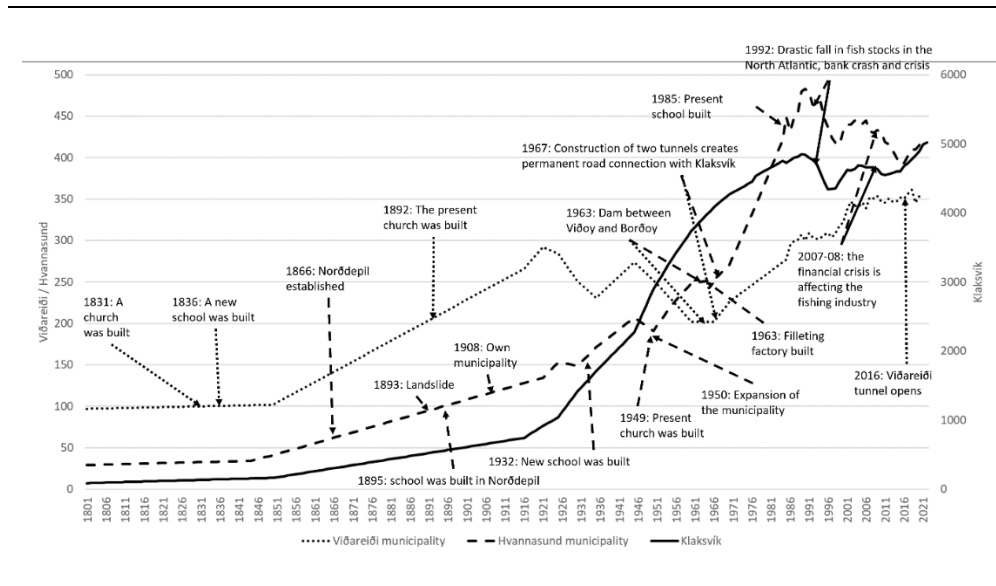
This section is structured in relation to the push-pull factors outlined in the theory section. It extracts the main themes found in the collected data – that is, what the interviewees identify as the main drivers of migration and population changes. Consequently, the factors are not proportional, since the interviewees emphasized certain factors more than others. The interviewees focus on the economy, including larger infrastructural developments, as this undoubtedly is the main factor for the fluctuations in the case area when historical events are taken into consideration. Since limited changes occurred in the 19th century, the focus is on the last 100 years, where several rises and falls in the populations in the case communities have occurred (Figure 2).

It should be noted that there are three components of population change: mortality, fertility, and migration. In the following, the fluctuations observed on the curves are mainly seen as changes caused by migration (i.e., push-pull factors), while linear trends can be explained by a combination of mortality/fertility and/or migration. From 1985 to 2022, there are mortality and fertility figures available at the village level (Statistics Faroe Islands, 2024), which show a decrease in fertility (linear trend) from 7.5 live births/year in 1985 to 4.8 in 2022 (with insignificant differences between the two municipalities), while the mortality level in the same period increased from 2.3 deaths/year to 3 in Hvannasund and decreased from 2.8 deaths/year to 1.3 in Viðareiði. There are no mortality/fertility figures at the village level available earlier than 1985, but the natural population increase at the national level shows a linear drop from

500 persons/year in 1970 to 200 in 2022. Smaller fluctuations before 1986 are not observable due to the 5-year intervals in the census data.

Figure 2

Population 1801–2022 for Viðareiði and Hvannasund municipalities (primary axis) and Klaksvík (secondary axis), and noteworthy historical events related to the case area. Data source: Statistics Faroe Islands (2024).ⁱ

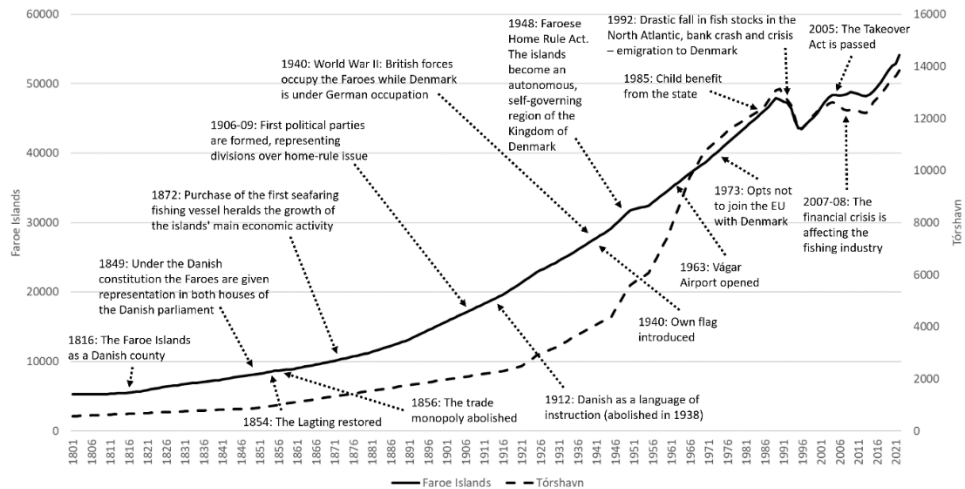


Economic factors: economic fluctuations and infrastructure

Initially, an examination of the general trend in the Faroe Islands. At the beginning of the 19th century, the total population of the Faroe Islands was 5,000, who lived in a society economically based on woolen products. However, in the 19th century, the population tripled, and the same happened in the 20th century, with the growth continuing in the 21st century (Figure 3). In particular, it was the introduction of larger fishing vessels starting in the middle of the 19th century that led to population growth, since these vessels could catch fish further away, which in turn led to the possibility of feeding a larger population. From the 1920s and onwards, there was a movement from the smaller communities to the larger towns, such as the capital Tórshavn (Figure 3), and the population grew steadily, and is still growing (input from various sources, e.g., Ecott, 2021; Guttesen, 1970, 1980, 1984; Hamilton et al., 2004; Harvey & Suter, 1984; Heleniak, 2018; Jackson, 1979, 1991; Jóansson, 2012; Joensen, 1989; Rólantsson, 2000; Schei & Moberg, 2003; West, 1972; Wylie, 1987; Wylie & Margolin, 1981). The period from 1990 to 1995 was one of high out-migration (due to a downturn in the fishing industry), which was followed by a period of moderate net immigration between 1996 and 2003 before migration again turned negative

until 2014. Overall, there has been a very moderate population increase since 1990 (see also Heleniak, 2018).

Figure 3
Population 1801–2022 for the Faroe Islands (primary axis) and Tórshavn (secondary axis) with noteworthy national historical events. Data source: Statistics Faroe Islands (2023).ⁱ



This movement from the villages to the centers, especially to Tórshavn and Klaksvík, was mainly caused by the change from the traditional Faroese society supported by agriculture and some inshore fishing, whaling, and fowling to a society supported by offshore fishing and fish processing (Guttessen, 1970, 1984; Jóansson, 2012). While the earlier system could only sustain 5,000 people at most, the latter could sustain 10 times as many, thereby leading to a population of almost 50,000 by the end of the 20th century. Consequently, a new form of society emerged during the 20th century, and from the 1960s onwards everything changed rapidly. A new, modern fishing fleet was put in place, new roads, tunnels, and bridges started to connect towns and villages, modern roll-on roll-off ferries were introduced, and, finally, the nationwide electricity grid eventually covered the entire country (Jóansson, 2012). These changes are contributing factors to a society where fewer people work in the primary sector of the economy (fishing and agriculture), but where it is still possible to live a modern life in the smaller remote communities while commuting to work in the larger towns. Nowadays a smaller proportion of men work at sea compared to the past, which has had an impact on how everyday life is organized and structured, including altered work mobility and cyclical migration (Hayfield,

2018), as well as changes to the division of labor and gender relations (Dahl, 2023; Hayfield, 2020; Hovgaard, 2015).

Fishing has been the main source of income for the Faroe Islands since the late 19th century, and the Faroese economy has experienced a period of significant growth since 2011 due to higher fish prices and increased salmon farming and catches in pelagic fisheries. The fisheries sector accounts for 92% of exports and approximately half of the GDP (Statistics Faroe Islands, 2024). The fact that the Faroe Islands are very dependent on one sector makes the Faroese economy very vulnerable (Andersen, 2020), and they have experienced economic downturns previously with the decline in connection with the banking and fishing crises in the 1980s and 1990s, respectively (Apostle et al., 2002). Between 1920 and 1960, depopulation occurred twice in Viðareiði due to major changes in the fishing industry in Klaksvík, and in Hvannasund it occurred two times as an effect of a collapse in the fishing industry in the 1990s and due to the financial crisis in 2007–08 (Figure 2) – the latter was also related to the fishing sector, since vessels were overborrowed. In the 1990s crisis, there was also no social security when people became unemployed, so people who lost their jobs had no financial support. At one point, unemployment was at 25% and wages fell by 8% – consequently, approximately 13% of the population moved out of the country (the vast majority to Denmark) (Adler-Nissen, 2014). One of the good things that came from this crisis was the establishment of a well-functioning unemployment fund, which, for example, was a great help during the financial crisis in 2007–08 and the COVID-19 pandemic.

However, to increase the resilience of society, several initiatives to diversify the economy have been introduced (Adler-Nissen, 2014), and the economy has also become more differentiated nowadays with the aquafarming of salmon in the fjords, which today makes up approximately half of Faroese exports. Technologies are improved continuously through research, which gives confidence in production that is economically and ecologically sustainable. Furthermore, the economic trends in aquafarming and fishing at sea do not follow each other, so they must be seen as two separate sub-sectors, even though they both deal with fish. The 1990s crisis was caused by a decline in fish stocks and prices; however, it is not certain that something similar can affect aquafarming, since it has other mechanisms and markets. The aquafarms have had a positive economic impact on Hvannasund municipality, since the experience and skills that people had from fishing at sea can to a large extent be used in aquafarming, and the industry has a significant positive influence on local tax revenues.

In the aftermath of the economic crisis in the 1990s, the Faroese economy transformed into a saving economy. Today, the trend is about saving instead of borrowing when investing in buildings, vessels, infrastructure, etc., and the mentality today is that they use the money they have and borrow to a lesser extent compared to previously. This trend was prompted by financial

institutions and has led to difficulties in obtaining a mortgage for a house, especially in remote areas such as Hvannasund and Viðareiði, where a buyer typically has to have a minimum of 30% in equity as collateral. However, this is an obstacle to the continuation of the remote communities, since it makes it difficult for the next generation to buy or take over houses. Less equity is needed in the larger towns, such as Klaksvík and Tórshavn, which has been a contributing factor to a movement to these towns. However, the houses in Klaksvík and Tórshavn are expensive compared to the remote areas, which is an opportunity for the small communities, but also influences the socioeconomic differences between people living in towns and remote areas.

The case communities are remote places. The Northern Islands are an area that has been cut off from the rest of the Faroe Islands for centuries. However, this no longer applies, since tunnels and bridges have been built in several places, especially to Klaksvík and Tórshavn (see locations in Figure 1). Furthermore, the municipalities' initiative in 1946 to ensure that even the most remote settlements had an electricity supply has been important for the development of the Faroe Islands. Thus, Viðareiði and Hvannasund are in a completely different situation since the road/tunnel connection to Klaksvík was established in 1967. Viðareiði municipality has had positive population growth since the 1960s when a direct road connection to Klaksvík was established, and Hvannasund municipality has had positive population growth since 2015; however, the growth was greater between the 1950s and late 1980s – especially since the tunnel to Klaksvík was built. Before the tunnels, a ferry sailed from Klaksvík to Viðareiði, Norðdepil, Hvannasund, Svínoy, and Fugloy (in that order). The ferry was slow, and the trip was not pleasant, even in half-bad weather. Today, the tunnels mean that people can live here as a family with children, since their main needs for a modern lifestyle can be covered here. They must go to Klaksvík for shopping, sports, and secondary and vocational education, but since most people frequent Klaksvík daily, it is a minor obstacle. Nevertheless, Viðareiði has not had a grocery store (like Hvannasund) for some years now, which is a challenge especially for the elderly, since they do not frequent Klaksvík daily.

Life is difficult in places that do not have a road/tunnel connection to the larger town, and communities are very dependent on the infrastructure. Some places have been depopulated. On the island of Kalsoy, where there are several car ferries daily, the young people move away because education and leisure activities are in Klaksvík, and the islands Svínoy and Fugloy, which are very remote places, are particularly vulnerable in several ways. The service level on these small islands is low, and it is difficult to get for instance craftspersons out there, they do not have as much money and earning opportunities, and therefore cannot pay so much to get services. There will probably only be holiday houses there when the current generation is gone, which is something that has happened or will happen to small communities in several places on the Faroe Islands. Over the past centuries, these settlements have been vacated and, in

several places, they remain as ruins. This happened recently to the very small community of Múli (Figure 1), which has been depopulated due to poor traffic connections. Thus, there are now only holiday homes in Múli, and the settlement is seen as one of the ghost towns on the Faroe Islands. However, in most places where there is electricity and a road connection that is maintained, the houses are kept and used as holiday homes.

The development of infrastructure alone cannot save the small communities, but it can help. The tunnels to Viðareiði and Hvannasund from 1965/67 are outdated and have for the last decade been the bottleneck for the area's development. Some people are afraid of driving through them because they are dark and narrow – the tunnels are only one-lane wide, so they use a one-way traffic system controlled by traffic lights. Before this, it was a one-lane system with small passing areas inside the tunnel to be used when traffic came in both directions at the same time. This system broke down regularly – especially when tourists and outsiders jammed the passing areas inside the tunnels, and it was therefore chaotic at times. Furthermore, trucks with wide/high loads got stuck inside the tunnels on several occasions, which blocked them for several hours and caused huge frustration for the locals. It is better today with the traffic-light system, but some people do not want to drive through the tunnels at all because they are afraid – they have been labeled “death traps”, even though no one has died in them. The idea is enough for people in the area to fear them, since they are afraid of not being able to get out if something happens inside the tunnels.

Hence, it was agreed to build new tunnels, which will open in 2024. These are seen as a prerequisite for the development of the case communities and are expected to have a positive impact on the population in the area – as the dam/tunnels had in the 1960s. The new tunnels will lead to people settling in Viðareiði and Hvannasund, since it will then be easier to commute to Klaksvík (and Tórshavn). Today, few people move away, and there are young people/families who build houses here. Even people who had left are coming back because the new tunnels are coming. However, the tunnels are not only being expanded to accommodate the citizens. There is a lot of transport for salmon farming from these communities, and this is probably the main reason for constructing them. Without the fishing industry here, the expansion may not have happened, or it would at least have been on a smaller scale. The local estimate is that the value of what is produced in Hvannasund in just one year is the same value as the cost of the new tunnels.

To contextualize these viewpoints, in the Faroe Islands, the internal mobility infrastructure on the islands is highly developed, with almost 90% of the population connected by a network of roads, bridges, and tunnels, and the remainder by ferry services. This policy of connecting villages, towns, and islands has led to people being able to practice mobility in networked regions (Hovgaard & Kristiansen, 2016) and means that residents are no longer bound to their home villages out of necessity but have a choice to stay or leave, which is leading to

changes in village demographics and social ties (Raymond et al., 2021). Thereby, the Faroese have the opportunity to participate and commute to the local central labor market (Hayfield & Rozanova-Smith, 2021). Hovgaard and Kristiansen (2008) argue that mobility is the motor behind a regional form of dwelling, which has given rise to a post-modern Faroese “network society”, but also that living in villages is for many first and foremost a socially motivated decision, since villages offer a platform for the lifestyle and values associated with the countryside (see also Gaini, 2011; Hokwerda, 2017; Kristiansen, 2006).

However, one concern is that everything is going towards Tórshavn, and some do not think new families will come here even with the new tunnels. Due to the development of the infrastructure, people can get from Tórshavn, or the satellite towns close to the tunnels, to the place they grew up in a very short time, but they do not have to live there, and typically there is not a suitable job related to their education in the small remote communities. Additionally, young people want to go to sports and have access to activities that take place evenings/nights – a young person living in a remote community must be driven to everything or take the bus (which does not run regularly). Furthermore, after the 7th grade, young people go to school in Klaksvík, so they are used to having access to the amenities that a larger town offers. Thus, the question is whether the coming generations will stay or return after they have attended education outside the case communities.

Hayfield (2017) argues that the youth out-migration taking place in many northern peripheral areas is mainly caused by the emergence of a transnational perspective in young people, and this aspect should be viewed as a defining characteristic of growing up in the Faroe Islands. She concludes, “migration should not be viewed as leaving and then (possibly) returning, but rather as a complex and circular process, where social remittances are travelling in a network of social relationships that are not confined to country boundaries” (Hayfield, 2017:9). Gaini (2018) has also studied the situation of younger people living in the Faroese communities by discussing young people’s future-oriented essays in relation to their islands’ history, culture, and values. He found a strong commitment to connecting the future to the past, but that the coming generation sees the islands altered from present-day realities. Consequently, a further transformation of the Faroese society is expected to occur over the coming generations.

Social (and demographic) factors: social cohesion and a sense of community

Strong social cohesion and distinct cultural traditions are the main drivers for people living here. In almost all the households in the case communities, at least one person has a relationship with their settlement. The families are few but large, have lived here for generations, and they live in the vicinity of each other. The importance of closeness to the family is also what keeps many from moving away, but it is also the importance of the community that means

something to the people living here. There is a strong sense of community, and people can talk about all the different places and the history of the community, often through stories that have been passed on orally from generation to generation. Many people have lived here all their lives and have never considered moving away. The houses they live in are inherited through generations and have been in families since they were built, which is common for most families here. Consequently, the identity of life for people is tied to the house and/or the location of the house, since their ancestors have lived in the exact same place. The village identity is in general fundamental – they know and support each other, and the sense of community is what binds them together. In both case communities, the common identity is connected to religion, school/kindergarten, nature, and various activities related to the harbors. Other scholars have elaborated vastly on the themes of identity, social cohesion, and place attachment in the Faroe Islands (e.g., Gaffin, 1996; Gaini, 2011, 2013; Kongsager & Baron, 2024; Raymond et al., 2021; Wylie & Margolin, 1981).

A social push factor discovered in the case communities was a limited degree of intolerance towards other religious beliefs in the past, which from time to time has caused controversy and triggered minor movements between the communities (see also Jóansson, 2012). However, the importance of religion has declined substantially, so this is less pronounced today. Now, it is the lack of adequate services and limited access to essential healthcare and educational institutions that influence migration, especially among young families and individuals seeking improved standards of living for their children. It is in general a structural challenge to properly educate and prepare young people with academic ambitions, and they have to out-migrate to obtain academic qualifications that the Faroe Islands are unable to provide due to structural, financial, and logistical constraints (Djurhuus, 2019; Hayfield et al., 2016). The young Faroese who travel abroad for higher education, especially females, often do not return, which has led to a gender imbalance but also a loss of the most talented and skilled people (referred to as a brain drain, see Zachariassen, 2013).

The case communities are associated with a more relaxed and close-knit social environment, reduced stress levels, and improved work-life balance, which act as pull factors towards these communities for individuals seeking a change from hectic urban lifestyles (see also Gaffin, 1996). Regarding the demographic factors, the general population growth in the Faroe Islands (Figure 3) is a pull factor, since the smaller communities become attractive as the larger towns increase in population density. The relatively young age structure in the case communities is also a pull factor, because it indicates a future of prosperity, while some other small remote communities in the Faroe Islands have experienced demographic aging, which has led to population decline in these communities (Statistics Faroe Islands, 2024).

Political factors: security and local democracy

Few political factors have affected the migration in the case communities. Political push factors, such as conflict/war and terrorism, that are present in many other places in the world are what some mention as reasons why they live here. Regarding political pull factors, it is the same. Here, people find the rule of law, political stability, peace, and security. These features may explain the increases in the population in Viðareiði and Hvannasund in the 1910s and 1940s – more pronounced in Viðareiði than in Hvannasund (Figure 2). The hypothesis mentioned by some of the interviewees is that during World War I and II, people moved to the smaller communities to find protection and security, but as stability returned in the post-war years they went back to the larger towns or went abroad to find jobs. It should be noted that some interviewees question this explanation; however, they do not offer alternative explanations, and it has not been possible to verify this hypothesis, since there is limited information in the literature on this matter – only Berghamar (1992), who states that there was an emigration around the start of World War I. The Faroe Islands were not seriously involved in these wars. In World War I (1914–18), the Faroe Islands were only indirectly affected, but during World War II (1939–45) the islands suffered occasional attacks by Luftwaffe aircraft; however, an invasion was never attempted. During this war, the British occupied the Faroe Islands to prevent a German invasion of the islands, since their strategic location in the North Atlantic could have proved useful to Germany in the Battle of the Atlantic (see e.g., Miller, 2003).

In small remote communities such as Viðareiði and Hvannasund, the pull element of democracy is a dominant factor for the people living here. The appreciation of the local democracy is outspoken, and, both nationally and locally, the Faroese value their independence and autonomy (Adler-Nissen, 2014; Gaini, 2013). This was, for instance, noted during earlier discussions on merging the many small municipalities in the Faroe Islands, where a referendum on creating seven large municipalities was outvoted by a large number. Some say that people are afraid that local development will stop if there is a merger. For example, it is unlikely that there would have been a kindergarten in Viðareiði if it had merged with Klaksvík, as one interviewee puts it. The focus of the town councils is the people living here, which, for instance, means having a well-functioning school and transport infrastructure. Local citizens are the politicians in the councils in the small municipalities, with the national parties playing an insignificant role locally.

Environmental factors: connection with nature

Small remote communities often possess a unique quality of life that attracts people seeking a closer connection to nature. Natural and cultural amenities such as a clean environment, pristine landscapes, and cultural heritage can act as

significant pull factors, and the allure of outdoor recreational activities can attract people seeking an active lifestyle – and the case communities are attractive environments with natural beauty and are very alluring for individuals who seek a slower pace of life close to nature. The bond with nature is strong here. As one of the villagers states: “I love living here – it’s so extremely beautiful – I will always live here”, and similar expressions were put forward by most interviewees living in the case communities when asked what they like about living here. The environmental push factors can also be natural hazards and environmental degradation. Modern fisheries crises such as those the Faroe Islands experienced in the 1990s present special cases of the boom-and-bust cycles common to natural-resource-dependent communities, where resources became depleted through a combination of overfishing and environmental stress, which resulted in the previously mentioned out-migration and changed the size and composition of the population (Hamilton et al., 2004). The case communities were also affected by this, but here it is, for instance, also the intensity and/or frequency of storms – or simply bad weather for longer periods during the winter season – that lead to some people migrating abroad permanently or seasonally (Kongsager & Baron, 2024).

Utilization of nature is also important. Viðareiði is a classic old Faroese agricultural settlement with a relatively large agricultural area, while Hvannasund is a settlement that has grown together with fishing. In both places, there are distinct seasons related to sheep, birds, hares, pilot whales, and fish, and almost all families are involved in activities related to these animals. The produce is sold or consumed as a delicacy locally, and in most households these will be served with pride and accompanied by stories to the guests. Previously, this utilization of nature was essential for survival, but today it is a hobby for most people. Nevertheless, the traditions mean something to the identity of the communities, since they are a connection with nature through some of their ancestors’ practices (see also Gaffin, 1996; Gaini, 2011, 2013).

An important aspect regarding sheep is land ownership. It is only possible to have sheep when owning land – or having access to land. Land has a different value depending on the proximity to the village, location, and fowling (with the land in the mountains for grazing, the owner also has the sole rights to the area’s birds/eggs). Until the 1930s, the church owned the land in the villages, which gave immense power to the priests, which is why the villagers in Viðareiði today own three-quarters of Viðoy, since the vicarage was located here, and in Hvannasund only one-quarter. Later, land was distributed to the villagers working for the priest, which is especially evident in Viðareiði, with buildings that are scattered and further away from the church. So, when villagers got married, they got a piece of land to grow potatoes and build a house on, as well as to have sheep and maybe a cow. This was a good combination for a fisherman, since they thereby became self-sufficient. This land has been passed on to children – which has resulted in many small plots, but also that the land owned

by the families today represents the identity and a sense of belonging to specific places in and around the village and a connection to previous generations. In general, land tenure is highly complex in a Faroese context with a history of disputes and ongoing discussions on who can own land and the usage of it, which all in all have led to a multilayered and complicated connection with land in the Faroese communities for generations (Gaini, 2013).

Summary

This section initially summarizes the overall findings and thereafter discusses the applied framework.

The overall findings

Economic factors are the main push-pull factors to explain the population changes in the Faroe Islands in general and in the case communities, while the social factors (incl. demography) cannot explain the larger fluctuations in the population in the case communities but can explain the more linear trends throughout time. Political factors have a limited effect on the population changes in the case communities, but national politics has an indirect effect on the economic factors, and the world wars may have caused some of the more local fluctuations. Finally, environmental factors do not explain the fluctuations in the population in the case communities that occur in short periods but can explain some of the linear trends that have occurred.

Concerning the broader view of the findings, Samers (2010) added some empirical generalizations to Lee's (1966) push-pull theory, which was based on Ravenstein's laws (1885, 1889) – these were: 1) Migrants tend to move mainly over short distances – the destination of those who travel longer distances is usually great centers of commerce and industry, 2) migration is usually from agrarian rural areas to industrial hubs, 3) the populations of large towns tend to grow more by migration than by birth rate, 4) the development of industry, commerce, and transport encourages migration, 5) each stream of migration produces a counter-stream, 6) over short distances, females migrate more than men, while over international distances, the men seem to be migrate more, and 7) economic reasons are the major migration driver (Samers, 2010). All seven statements are to a large extent in line with the findings in this study, which is interesting in the way that generalizations to be found in a study from the 19th century only have minor differences in the overall findings in a study conducted almost 150 years later. The details in these studies have several case-specific differences, but, overall, there are huge similarities, which is interesting, since the world in general has changed greatly during this period – for instance, technological advancements have minimized the limitations of distance and transportation, and communication systems have made information about potential destinations much more accessible.

Push-pull as an approach

Just as the customary economic approach to migration has been criticized, so too has its devoted fellow: the push-pull framework. Some see it as a useful heuristic approach; however, it does not constitute a theoretical framework so much as a means of classifying migration and ordering its determinants in space and is thereby too simplistic and deterministic (de Haas, 2011; Massey et al., 2005; Skeldon, 1990). While acknowledging this critique, there is still some merit in the simple notion of push-pull, with its intuitive and empirically grounded idea that structural forces shape migration processes (see also Van Hear et al., 2017). And yes, the push-pull thinking may be too simplistic to cover the complexity of movements in many cases, but it can be useful for explaining simple movements in and out of smaller communities, since it is specific events and changes occurring internally and externally that cause the main movements that can be seen in the population graphs (as in this paper). Nonetheless, a criticism that can be raised is the inconsistency in the labeling and categorization of factors in different studies and textbooks (e.g., Fouberg & Murphy, 2020; Krishnakumar & Indumathi, 2014; Niu, 2022; Ojiaku et al., 2018; Urbański, 2022; Van Hear et al., 2017), since this is challenging for the grounding of the framework and problematic when comparing findings.

A specific criticism highlighted is that the original idea behind the push-pull framework assumes that migration enables a certain equilibrium to be achieved between forces of economic growth and contraction in different geographical locations. However, this idea has been refuted (Massey et al., 2005) and is therefore not the way the approach is applied in this paper. As seen in the analysis, the dialectic is not so much between the forces of push and pull but often the intervening factors, which Lee (1966) also describes. The most important forces influencing the volume and composition of migration described in this paper do not follow the equilibrium thinking but form an amalgam of factors that, through a dynamic process, determine the size and character of contemporary international and national migration flows.

Finally, it should be noted that it is difficult to classify pure push/pull factors, because often the factors associated with the country of origin are just as important as the factors associated with the destination. It is frequently a combination of push and pull factors that make people migrate. For instance, communities die out when an older population leaves and/or dies, which can be seen in a combination of economic and demographic factors (e.g., Krishnakumar & Indumathi, 2014), and, as described in this paper, particular migration factors do not work in isolation but in combination. The factors can cluster to operate as more than the sum of the single drivers that constitute them (Van Hear et al., 2017). Consider the example provided in this paper where the opportunities in the dominant industry, here fishing, have fluctuated heavily from decade to decade, which occurred simultaneously with major changes in society, such as religious changes, wars, global recessions, and a national bank crisis.

Conclusion

Migration in small remote communities in the Nordic countries is influenced by a combination of push and pull factors. This paper highlights the factors related to two small remote communities, as well as at the national level, in the Faroe Islands. Economic factors are the main push-pull factors for explaining the population changes, while the social/demographic, political, and environmental factors to a lesser degree explain changes observed over time. Therefore, policymakers must implement targeted strategies that harness the positive aspects of migration while addressing the challenges faced by these communities. In recognizing the role of migration in community development, policymakers should adopt holistic approaches that leverage the positive aspects of migration while addressing the associated challenges. By doing so, small remote communities can thrive, foster sustainable development, and enhance the well-being of both existing residents and newcomers. This may involve investing in infrastructure development, improving access to essential services, fostering entrepreneurship, and promoting cultural preservation.

Acknowledgments: The author would like to extend gratitude to all the individuals who took part in the research. The research is a part of the Climate Change Resilience in Small Communities in the Nordic Countries (CliCNord) research project that has received funding from the NordForsk Nordic Societal Security Programme under Grant Agreement No. 97229.

Conflict of Interest: The author declares no conflicts of interest.

References

- Abel, G. J., & Sander, N. (2014). Quantifying global international migration flows. *Science*, 343(6178), 1520–1522.
- Adler-Nissen, R. (2014). The Faroe Islands: Independence dreams, globalist separatism and the Europeanization of postcolonial home rule. *Cooperation and Conflict*, 49(1), 55–79. <https://doi.org/10.1177/0010836713514150>
- Andersen, T. M. (2020). Fiscal Relations in the Realm of Denmark - The Case of the Faroe Islands and Greenland. *Revista de La Academia Puertorriquena de Jurisprudencia y Legislacion / Puerto Rican Academy of Jurisprudence and Legislation Review*, 17.
- Apostle, R., Holm, D., Hovgaard, G., Waag Høgenesen, O., & Mortensen, B. (2002). *The Restructuration of the Faroese Economy*. Samfundslitteratur.
- Berghamar, S. (1992). - *men Gud gav vøkst [- but God gave growth]*. William Sloan og fyrstu samkomurnar.

- Clarke, V., & Braun, V. (2016). Thematic analysis. *The Journal of Positive Psychology*, 12(3), 297–298.
<https://doi.org/10.1080/17439760.2016.1262613>
- Dahl, S. (2023). *Knitting the Faroes: understanding island change through the social infrastructures of women's everyday lives (Master's Thesis)*.
- de Haas, H. (2011). *The Determinants of International Migration: Conceptualizing Policy, Origin and Destination Effects*. IMI Working Paper No. 32. Oxford: International Migration Institute.
- Djurhuus, S. N. (2019). *Reasons to stay // reasons to return*.
- Ecott, T. (2021). *The Land of Maybe: A Faroe Islands Year*. Short Books.
- Fouberg, E. H., & Murphy, A. B. (2020). *Human Geography: People, Place, and Culture* (12th ed.). Wiley.
- Frank, B., & Brown, S. (2014). Demographic analyses of immigration. In C. B. Brettell & J. F. Hollifield (Eds.), *Migration Theory: Talking across Disciplines* (pp. 79–101). Taylor and Francis.
- Gaffin, D. (1996). *In place: spatial and social order in a Faeroe Islands community*. Waveland Press.
- Gaini, F. (2011). *Among the islanders of the north: an anthropology of the Faroe Islands*. Faroe University Press.
- Gaini, F. (2013). Lessons of Islands: Place and identity in the Faroe Islands. In *Fróðskapur Books*. Fróðskaparsetur Føroya, Sögu- og samfelagsdeildin.
<https://doi.org/10.18602/FRODSKAPUR.VI.198>
- Gaini, F. (2018). Altered Islands: Young Faroe Islanders' Future Landscapes. *Suomen Antropologi: Journal of the Finnish Anthropological Society*, 43(4), 3–18. <https://doi.org/10.30676/JFAS.V43I4.73270>
- Guttesen, R. (1970). Færøernes migrationer 1961-65, med en kort befolkningsbeskrivelse [The Faroe Islands' migrations 1961-65, with a brief population description]. *Geografisk Tidsskrift*, 69, 1–27.
- Guttesen, R. (1980). Recent Development in Faroese Fishing Industry. *Geografisk Tidsskrift-Danish Journal of Geography*, 80(1), 102–108.
<https://doi.org/10.1080/00167223.1980.10649124>
- Guttesen, R. (1984). Migration trends on the Faroe Islands. *Geografisk Tidsskrift-Danish Journal of Geography*, 84(1), 74–78.
<https://doi.org/10.1080/00167223.1984.10649202>
- Hamilton, L. C., Colocousis, C. R., & Johansen, S. T. F. (2004). Migration from Resource Depletion: The Case of the Faroe Islands. *Society & Natural Resources*, 17(5), 443–453. <https://doi.org/10.1080/08941920490430232>

- Harvey, R. G., & Suter, D. (1984). Migration in the Faroe Islands. *Journal of Human Evolution*, 13(4), 311–317. [https://doi.org/10.1016/S0047-2484\(84\)80035-4](https://doi.org/10.1016/S0047-2484(84)80035-4)
- Hayfield, E. A. (2017). Exploring Transnational Realities in the Lives of Faroese Youngsters. *Nordic Journal of Migration Research*, 7(1), 3. <https://doi.org/10.1515/NJMR-2017-0007>
- Hayfield, E. A. (2018). Family-centred work motility in a small island society: the case of the Faroe Islands. *Gender, Place & Culture*, 25(8), 1138–1153. <https://doi.org/10.1080/0966369X.2018.1461075>
- Hayfield, E. A. (2020). Parenting and islands: constructing gender and work in the Faroe Islands. In F. Gaini & H. P. Nielsen (Eds.), *Gender and Island Communities*. ROUTLEDGE.
- Hayfield, E. A., Olavson, R., & Patursson, L. (2016). *Part-time work in the Nordic Region III: an introductory study of the Faroe Islands, Greenland and Åland Islands*.
- Hayfield, E. A., & Rozanova-Smith, M. (2021). Migration and Mobility. In *Pan-Arctic Report "Gender Equality in the Arctic"* (pp. 144–191). Iceland's Arctic Council Chairmanship and the Arctic Council Sustainable Development Working Group, with the Icelandic Arctic Cooperation Network, the Icelandic Directorate for Equality, and the Stefansson Arctic Institute.
- Heberle, R. (1938). The causes of rural-urban migration a survey of German theories. *American Journal of Sociology*, 43, 932–950.
- Heleniak, T. E. (2018). *From migrants to workers international migration trends in the Nordic countries*.
- Hokwerda, R. (2017). *Tunnel Visionary: The societal effects and impacts of sub-sea tunnels on the Faroe Islands (Master's Thesis)*. Rijksuniversiteit Groningen.
- Hovgaard, G. (2015). Being Away; Being at Home; Being Both: The Case of Faroese Maritime Workers. In S. T. Faber & H. P. Nielsen (Eds.), *Remapping Gender, Place and Mobility: Global Confluences and Local Particularities in Nordic Peripheries* (pp. 1–264). Taylor and Francis. <https://doi.org/10.4324/9781315605180>
- Hovgaard, G., & Kristiansen, S. (2008). Villages on the move: from places of necessity to places of choice. In J. O. Bærenholdt & B. Granås (Eds.), *Mobility and Place: Enacting Northern European Peripheries* (pp. 61–74). Routledge.
- Hovgaard, G., & Kristiansen, S. M. (2016). Villages on the move: From places of necessity to places of choice. In J. O. Bærenholdt & B. Granås (Eds.), *Mobility and place: Enacting Northern European peripheries* (pp. 77–90). Routledge.

- Hughes, C. (2019). Reexamining the Influence of Conditional Cash Transfers on Migration From a Gendered Lens. *Demography*, 56(5), 1573–1605. <https://doi.org/10.1007/S13524-019-00815-0>
- Jackson, A. (1979). *Socioeconomic Change in the Faroes*. North Atlantic Maritime Cultures.
- Jackson, A. (1991). *The Faroes: The faraway islands*. Robert Hale.
- Jóansson, T. (2012). *Brethren in the Faroes: An Evangelical movement, its remarkable growth and lasting impact in a remote island community (PhD Thesis)*. Faroe University Press.
- Joensen, J. P. (1989). Socio-Economic Transformation and the Growth of Faroese National Identity. *North Atlantic Studies*, 1(1), 14–20.
- Khalid, B., & Urbański, M. (2021). Approaches to understanding migration: A multi-country analysis of the push and pull migration trend -. *Economics and Sociology*, 14(4), 242–267.
- Kongsager, R., & Baron, N. (2024). Place attachment, storms, and climate change in the Faroe Islands. *Regional Environmental Change*.
- Krishnakumar, P., & Indumathi, T. (2014). Pull and push factors of migration. *Global Management Review*, 8(4), 8–13.
- Kristiansen, S. M. (2006). Village dwelling. Understanding young people's reasons for settling in Faroese villages. *Fróðskaparrit - Faroese Scientific Journal*, 54, 96–113.
- Lee, E. S. (1966). A Theory of Migration. *Demography*, 3(1), 47–57. <https://doi.org/10.2307/2060063>
- Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (2005). *Worlds in Motion: Understanding International Migration at the End of the Millennium*. Oxford University Press.
- Miller, J. (2003). *The North Atlantic front: Orkney, Shetland, Faroe, and Iceland at war*. Birlinn.
- Mulder, C. H., Lundholm, E., & Malmberg, G. (2020). Young Adults' Migration to Cities in Sweden: Do Siblings Pave the Way? *Demography*, 57(6), 2221–2244. <https://doi.org/10.1007/S13524-020-00934-Z>
- Niu, F. (2022). A push-pull model for inter-city migration simulation. *Cities*, 131, 104005. <https://doi.org/10.1016/J.CITIES.2022.104005>
- Ojiaku, O. C., Nkamnebe, A. D., & Nwaizugbo, I. C. (2018). Determinants of entrepreneurial intentions among young graduates: perspectives of push-pull-mooring model. *Journal of Global Entrepreneurship Research* 2018 8:1, 8(1), 1–17. <https://doi.org/10.1186/S40497-018-0109-3>
- Proctor, J. (2019). *Faroe Islands* (5th ed.). Bradt Travel Guide.

- Ravenstein, E. G. (1885). The laws of migration. *Journal of the Statistical Society of London*, 48(2), 167. <https://doi.org/10.2307/2979181>
- Ravenstein, E. G. (1889). The laws of migration. *Journal of the Royal Statistical Society*, 53(2), 241–305.
- Raymond, C. M., Verbrugge, L. N. H., Fagerholm, N., Olafsson, A. S., Magnussen, E., & Plieninger, T. (2021). Exploring Senses of Place Through Narratives of Tourism Growth and Place Change: The Case of the Faroe Islands. In C. M. Raymond, L. C. Manzo, D. R. Williams, A. Di Masso, & T. von Wirth (Eds.), *Changing Senses of Place - Navigating Global Challenges* (pp. 79–91). Cambridge University Press.
<https://doi.org/https://doi.org/10.1017/9781108769471.009>
- Rólantsson, O. J. (2000). *The Faroe Islands: The New Millennium Series*.
- Samers, M. (2010). *Migration (Key Ideas in Geography Series)*. Routledge.
- Schei, L. K., & Moberg, G. (1991). *The Faroe Islands*. John Murray.
- Schei, L. K., & Moberg, G. (2003). *The Faroe Islands* (2nd ed.). Birlinn Ltd.
- Skeldon, R. (1990). Population Mobility in Developing Countries: A Reinterpretation. In *The Geographical Journal* (Issue 7). Belhaven Press.
<https://doi.org/10.3390/SU10072301>
- Statistics Faroe Islands. (2024, February 25). *Statistics Faroe Islands (Hagstova Føroya)*. <https://hagstova.fo/en>
- Thomas, B. (1973). *Migration and Economic Growth: A Study of Great Britain and the Atlantic Economy* (2nd ed.). Cambridge: Cambridge University Press.
- Urbański, M. (2022). Comparing Push and Pull Factors Affecting Migration. *Economies*, 10(1), 21. <https://doi.org/10.3390/ECONOMIES10010021>
- Van Hear, N., Bakewell, O., & Long, K. (2017). Push-pull plus: reconsidering the drivers of migration. *Journal of Ethnic and Migration Studies*, 44(6), 927–944. <https://doi.org/10.1080/1369183X.2017.1384135>
- Wang, C., Shen, J., & Liu, Y. (2021). Administrative level, city tier, and air quality: contextual determinants of hukou conversion for migrants in China. *Computational Urban Science*, 1(1), 1–16. <https://doi.org/10.1007/S43762-021-00007-W/FIGURES/5>
- Wang, S., Wang, M., & Liu, Y. (2021). Access to urban parks: Comparing spatial accessibility measures using three GIS-based approaches. *Computers, Environment and Urban Systems*, 90, 101713.
<https://doi.org/10.1016/J.COMPENVURBSYS.2021.101713>
- West, J. F. (1972). *Faroe: the emergence of a nation*. Hurst.
- Wylie, J. (1987). *The Faroe Islands: Interpretations of History*. University Press of Kentucky.

Wylie, J., & Margolin, D. (1981). *The Ring of Dancers: Images of Faroese Culture*. University of Pennsylvania Press Anniversary Collection.

Zachariasen, S. (2013). *Migration of the Highly Skilled: The Case of Brain Drain in the Faroe Islands (Master's Thesis)*.

ⁱ The figures between 1801-1805, 1805-1810, 1810-1815, 1815-1820, 1820-1825, 1825-1830, 1830-1834, 1834-1840, 1840-1845, 1845-1850, 1850-1855, 1855-1860, 1860-1870, 1870-1880, 1880-1890, 1890-1916, 1916-1921, 1921-1925, 1925-1930, 1930-1935, 1935-1945, 1945-1950, 1950-1955, 1955-1960, 1960-1966, 1966-1970, 1970-1977 and 1977-1986 are interpolated.