

Master's thesis



Unconditional Basic Income as a Means to Foster Innovation in Iceland

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Declaration

I hereby confirm that I am the sole author of this thesis and it is a product of my own academic research.

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Abstract

Since the privatization of Icelandic fishing quotas in the 1990s and the 2008 financial crisis, Iceland has diversified its economy from traditional fishing to tourism and energy for aluminum production (Sæþórsdóttir & Hall 2019). Communities that previously relied on the fishing industry have transitioned between the two sectors or creating their own path.

Depopulation and occasionally abandonment is not uncommon in Iceland for those that cannot create a new path (Kokorsch & Benediktsson 2017). While there is still much to debate whether it is a result of the privatization of fishing quotas or just a product of urbanization (Kokorsch & Benediktsson 2017), Iceland is experiencing depopulation in the outlying communities as the Capital Area continues to grow. Innovative capacity and economic capital are crucial for the diversification of local economies (Kokorsch & Benediktsson 2017).

The master's thesis research will examine how unconditional basic income (UBI) in Iceland could foster innovation throughout Iceland and enhance resilience in the outlying communities. UBI could be used as a means to create an environment for innovation for all industries in Iceland but the research will follow the creative class since they are more likely to be the first to innovate if UBI was implemented. The research will also seek to determine how much money is determined to be appropriate for UBI. This research will finally focus on migration motivations from outlying communities to the capital area and how a UBI could influence these decisions. The project utilized a mixed-methods approach with semi-structured interviews and an online survey.

Útdráttur

Frá einkavæðingu innlenda fiskveiðikvótans á tíunda áratug 20. aldar og fjármálakreppunni 2008, hefur Ísland aukið fjölbreytni hagkerfisins frá hefðbundnum fiskveiðum til ferðaþjónustu og orku til álframleiðslu. Samfélög sem áður treystu á fiskiðnaðinn hafa verið í umbreytingu milli þessara tveggja geira eða skapað sína eigin leið.

Fólksfækkun og stundum brotthvarf eru ekki óalgeng hérlendis hjá þeim sem ekki geta skapað sér nýja leið. Enda þótt það sé enn mjög umdeilt hvort þetta er afleiðing einkavæðingar fiskveiðikvótans eða tilkomið vegna þéttbýlismyndunar, er Ísland að verða fyrir fólksfækkun í afskekktum samfélögum á meðan höfuðborgarsvæðið heldur áfram að vaxa. Geta til nýsköpunar og fjármagn eru úrslitaatriði fyrir fjölpættingu hagkerfisins á staðnum.

Rannsóknirnar meistararitgerðarinnar munu kanna hvernig óskilyrtar grunntekjur (UBI) hér á landi gætu stutt við nýsköpun um allt land og aukið viðnámsþrótt afskekkttra samfélaga. Almennar grunntekjur (UBI) gætu verið notaðar sem leið til að skapa umhverfi fyrir nýsköpun fyrir allar innlendar atvinnugreinar en rannsóknirnar munu fylgja skapandi floknum því þær greinar eru líklegri til að verða fyrstar til þróa nýjungar ef almennum grunntekjum (UBI) er komið á. Rannsóknirnar munu einnig leitast við að ákvarða hve mikið fé telst viðeigandi fyrir almennar grunntekjur (UBI). Þessar rannsóknir munu að lokum beinast að hvötum til búferlaflutunga frá afskekktum samfélögum til höfuðborgarsvæðisins og hvernig almennar grunntekjur (UBI) gætu haft áhrif á þessar ákvarðanir. Verkefnið hagnýtti blandaða-aðferðar nálgun með hálfbyggðum viðtölum og könnun á netinu.

Table of Contents

Abstract	v
List of Tables.....	viii
Acronyms	x
Acknowledgements	xi
1 Introduction	1
1.1 Research Questions	2
1.2 Paper Organization	3
2 Background	4
2.1 Innovation.....	4
2.1.1 What is Innovation	4
2.2 Regional Development Context	6
2.2.1 What is Regional Development.....	6
2.2.2 Regional Development and Innovation.....	8
2.2.3 Icelandic Context of Regional Development	10
2.3 Migration	11
2.3.1 Factors of Migration Intention	11
2.3.2 Migration in the Icelandic Context.....	14
2.3.3 Issues of Migration.....	18
2.4 The Fourth Industrial Revolution	21
2.5 Unconditional Basic Income	23
2.5.1 What is Unconditional Basic Income.....	23
2.5.2 Previous Unconditional Basic Income Experiments.....	24
2.5.3 UBI Effects.....	25
2.5.4 Current Support of UBI.....	27
2.6 UBI and the Welfare State.....	28
2.6.1 Considerations of UBI.....	28
2.6.2 Icelandic Tax Credit System of 1974.....	29
2.6.3 Icelandic Welfare Benefits	30
2.7 The Creative Class.....	31
2.7.1 Defining the Creative Class.....	31

2.7.2	The Icelandic Creative Class	32
2.7.3	Creative Industries Support Systems	35
3	Methodology.....	37
3.1	Theoretical Framework.....	37
	Innovation.....	37
	Entrepreneurship.....	37
	Unconditional Basic Income	37
	Regional Development	37
	Creative Class	37
	Migration Intentions	38
3.2	Theories of Research Design	39
3.2.1	Mixed-Methods Approach.....	39
3.3	Methods	39
3.3.1	Interview Development	39
3.3.2	Interviewees.....	40
3.3.3	Interview Collection & Analysis	40
3.3.4	Survey Development	40
3.3.5	Survey Distribution	49
3.3.6	Analysis	50
4	Results	52
4.1	General Results.....	52
4.2	Community Development and UBI	66
4.3	UBI Support.....	73
4.4	UBI Outcomes	80
5	Discussion.....	82

5.1	Limitations.....	82
5.2	Covid-19 Effects.....	82
5.3	General Results.....	84
5.4	Community Development and UBI.....	87
5.5	UBI Support.....	89
5.6	UBI Outcomes	90
5.7	Implementation Considerations.....	91
5.8	Further Research.....	92
6	Conclusion.....	94
	References	96
	Appendix A – Ethics Clearance Letter.....	101
	Appendix B – Interview Guide	102
	Appendix C - Survey.....	104
	Appendix D – Raw Results	110
	Appendix E – Selected Maps	128

List of Tables

Table 2.1	Previous UBI Experiments.....	24
Table 2.2	Icelandic Creative Industries VAT Taxable Turnover.....	33
Table 2.3	Icelandic Creative Industries Salary Cost	34
Table 2.4	Icelandic Creative Industries Full-Time Equivalents.....	34
Table 2.5	Icelandic Creative Industries Support Systems.....	35
Table 3.1	Section 1 Survey Questions	42
Table 3.2	Section 2 Survey Questions	43
Table 3.3	Section 4 Survey Questions	45
Table 3.4	Section 5 Survey Questions	46

Table 3.5 Section 6 Survey Questions.....	47
Table 3.6 Section 7 Survey Questions.....	48
Table 4.1 Volunteering in Capital Region versus Non-Capital Regions.....	52
Table 4.2 Current region versus volunteering	53
Table 4.3 Imagine Living Elsewhere in Capital Region versus Non-Capital Regions	54
Table 4.4 Move to keep main occupation in Capital Region versus Non-Capital Regions	54
Table 4.5 Move to pursue another occupation in Capital Region versus Non-Capital Regions	55
Table 4.6 Satisfaction where currently living in Capital Region versus Non-Capital Regions	55
Table 4.7 Frequencies of Main Challenges to Rural Development in Iceland.....	56
Table 4.8 Region versus people who consider themselves innovative.....	57
Table 4.9 Region versus people who consider themselves creative.....	58
Table 4.10 Region versus people who want to start their own businesses	59
Table 4.11 Region versus people who want to start an organization(s)	60
Table 4.12 Region versus work status	62
Table 4.13 Current region versus where you identify as home	63
Table 4.14 Current region versus where you want to live in 5 years	64
Table 4.15 Current region versus satisfaction with where you live	65
Table 4.16 Frequency of Have you heard of UBI?.....	66
Table 4.17 Work status versus ability to decrease workload with UBI	67
Table 4.18 Frequency of considering living in the Capital Region with UBI.....	67
Table 4.19 Capital/Non-Capital versus living in the Capital Region with UBI.....	68
Table 4.20 Current region versus living in the Capital Region with UBI.....	69
Table 4.21 Frequency of considering living in a rural region with UBI	69
Table 4.22 Capital/Non-Capital versus living in a rural region with UBI	70
Table 4.23 Current region versus living in a rural region with UBI	71

Table 4.24	Current region versus starting a business/organization with UBI.....	72
Table 4.25	Current region versus spending more time on creative projects with UBI.....	73
Table 4.26	Frequency of Support of UBI Amount.....	73
Table 4.27	Current region versus UBI support	74
Table 4.28	Work status versus UBI support	75
Table 4.29	Innovative versus UBI support.....	75
Table 4.30	Creative versus UBI support	76
Table 4.31	Starting a company versus UBI support.....	76
Table 4.32	Starting an organization versus UBI support	77
Table 4.33	Age versus UBI support	77
Table 4.34	Gender versus UBI support.....	78
Table 4.35	Number of children versus UBI support	78
Table 4.36	Financial need versus UBI support	79
Table 4.37	Income versus UBI support.....	79
Table 4.38	Education versus UBI support	80
Table 4.39	Frequencies of Best Outcomes of UBI.....	80
Table 4.40	Frequencies of Adverse Outcomes of UBI	81

Acronyms

UBI – Unconditional Basic Income

ITQ – Individual Transferable Quota

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1 Introduction

The Fourth Industrial Revolution, also known as Industry 4.0, will fundamentally alter how people live (Postelnicu & Câlea 2019). Research argues that this revolution is already underway and will be historically different than the previous three due to the velocity at which it will evolve, the breadth and depth of the revolution, and the system's impact on society as a whole (Postelnicu & Câlea 2019). Overall, the fourth industrial revolution has the potential to reduce labor demand through full automation which would provide more free time without reducing economic output. However, if this free time is not compensated, it will be of little value if people cannot make ends meet if labor demand is decreased. A solution for allowing people to make ends meet as the fourth industrial revolution continues to transform our society is the idea of a Universal Basic Income (UBI) (Smicek & Williams 2015).

Unconditional basic income (UBI), also referred to as basic income, minimum income, basic income guarantee, or universal basic income, is the idea that the government supplies each citizen with a stipend each month to pay for the basic necessities of life to guarantee a minimum standard of living (Cercelaru 2016). UBI ensures a certain standard of living and eliminates constraints of having a job to meet that standard (Cercelaru 2016). Individuals are free to find jobs that offer satisfaction and the opportunity to feel fulfilled (Cercelaru 2016). Other benefits include bringing better prepared people to the workforce who are eager to learn and evolve (Cercelaru 2016). Since the government would provide a living wage already, existing labor markets could change. UBI has the ability to change existing social and economic structures typically characterized by rigid hierarchies of wealth based on race, ethnic, gender, and class divisions (Lacey 2017).

The Fourth Industrial Revolution comes at a time that Iceland is facing major social issues. Since the privatization of Icelandic fishing quotas in the 1990s and the 2008 financial crisis, Iceland has diversified its economy from traditional fishing to tourism and energy for aluminum production (Sæþórsdóttir & Hall 2019). Communities that previously relied on the fishing industry have transitioned between the two sectors, creating their own path or not finding a way to mitigate a declining economy. Depopulation and occasionally abandonment

is not uncommon in Iceland (Kokorsch & Benediktsson 2017). While there is still much to debate whether it is a result of the privatization of fishing quotas or just a product of urbanization (Kokorsch & Benediktsson 2017), Iceland is experiencing depopulation in the outlying communities as the Capital Area continues to grow. Innovative capacity and economic capital are crucial for the diversification of local economies (Kokorsch & Benediktsson 2017).

This research will examine how unconditional basic income (UBI) in Iceland could foster innovation throughout Iceland. UBI could be used as a means to create an environment for innovation for all industries in Iceland but the research will follow the creative class since they are more likely to be the first to innovate if UBI and benefit if was implemented. The research will also seek to determine how much money is determined to be a livable wage and people's interest in business and organization creation. The research will finally focus on migration motivations from outlying communities to the Capital area and how a UBI could affect migration.

1.1 Research Questions

In order to research if unconditional basic income (UBI) could be a means to foster innovation in Iceland, the study will investigate the following research question:

How could unconditional basic income foster innovation and affect migration in Iceland?

The aims of the research include determining overall attitudes towards UBI, explore people's interest in business and organization creation, explore migration intentions between Reykjavik and rural communities, and explore general characteristics and attitudes of support of UBI in Iceland.

The research will use a mixed methods approach to answer the research question and aims. This study conducts a survey that is intended to be representative of the population of Iceland to understand how UBI could affect rural communities in Iceland through innovation and entrepreneurship.

1.2 Paper Organization

The research is organized into the following sections: (1) Introduction; (2) Background; (3) Methodology; (4) Results; (5) Discussion; and (6) Conclusion. The background section covers concepts related to the research like innovation, regional development, migration, the Fourth Industrial Revolution, unconditional basic income and the creative class. The methodology section defines the terms used for the research as well as the mixed-methods approach. The results section has four themes: General Results, Community Development and UBI, UBI Support, and UBI Outcomes. The discussion sections relates the results to the background and research questions, and finally a conclusion provides an overview of the research.

2 Background

The background sections discuss relevant concepts to the research. These concepts are innovation, regional development, migration, the Fourth Industrial Revolution, unconditional basic income, and the creative class.

2.1 Innovation

2.1.1 What is Innovation

The first focus of this research is on the concept of “innovation”. Innovation is vaguely defined in many contexts, industries, and geographies and often has many different identities such as social, technological, and economic innovations. Kerr et al. (2017) studied creativity and innovation in Iceland and what variables factored into it. Their definition of innovation is the implementation of creativity through interactions between people, place, process and product (Kerr et al. 2017). Innovation is also the implementation of creative ideas through businesses, organizations or societies (Kerr et al. 2017). The differences between social, technological and economic innovations are further defined below.

Social Innovation

Social innovations have been defined through various authors and decades such as Gillwald (2000), Shumpeter (1949), Zapf (1989), Pot and Vaas (2008), Ogburn (1964), and Adams and Hess (2008). However, social innovation is not uniformly defined but to start it is based on collaborative actions. It can refer to the effort, method, result, or change initiated because of these collaborative actions. It should be discussed initially that social innovation does not always lead to economic change, but social innovation does provide value to society (Neumeier 2011). Gillwald (2000) stated that social innovations provide improved solutions that are not defined by their consequences, but rather by their novelty. Social innovations do not need to be idealized into a single person or into a person at all, but rather any social environment is capable of social innovation through cooperative efforts (Neumeier 2011).

Social innovations are acts of change (Gillwald 2000) and require the right collaboration between the right individuals or organizations. Through reviewing previous works of defining social innovations, Neumeir (2011) summarizes social innovation into three distinct concepts: (1) a new way of organizing business practices, the workplace, or external

relationships; (2) a first sociological approach that creates social change; and (3) a second sociological approach that creates change in the common goals of a specific group of people.

Additionally, social innovations depend on a variety of factors and Neumeier (2011) again summarizes these from his review of the previous literature.

- Only collective acting leads to social innovations. A single individual cannot bring about a social innovation
- Social innovation development is similar to technological or economic innovation in that it is always triggered by an initial catalyst
- Social innovations build on the concept of relative novelty
- Social innovations concentrate on changes of attitudes, behavior or perceptions
- Social innovations practical implementation is connected to their superiority when compared to existing methods
- Social innovations are non-material and focus on asset building, not needs

Neumeier (2011) stresses that social innovation is not a tangible improvement, but it is the change of attitudes, behaviors, or perceptions that result in a new form of collaboration in the first place. Because it is the change and not something that is tangible, social innovations can be hard to identify (Neumeier 2011). It is also important to note that social innovations do not necessarily have to have an economic impact.

Neumeier (2011) describes three stages of social innovation: problematization; expression of interest; and delineation and coordination. The first stage is triggered by a change in behavior or attitudes of an actor or a small group of individual actors. The reason for this change can be an idea or identification of a problem. The second stage, other actors see the changed behavior or attitude and express interest in changing their behavior in a similar manner. Finally, in the third stage, the actor network discusses the new behavior and attitudes together. If the new attitude or behavior is generally accepted, social innovation has occurred (Neumeier 2011).

Economic & Technological Innovations

The focus of this research is not on economic and technological innovations but they are defined here for reference and clarity. Economic and technological innovations differ from

social innovations in which that these innovations are the result of internal research and development that is conducted by a company that leads to a new product, service, or technology being introduced to the market (Neumeier 2011). These innovations have a clear economic intention and are well researched and defined. In public discussions, innovation is mainly perceived as economic innovations. Economic innovations are focused on technical efficiency and are easier to identify than social innovations (Neumeier 2011).

Entrepreneurship

Entrepreneurship is also defined since it is closely overlapped with innovation. Entrepreneurs are defined as ones who see new opportunities, forecast threats, and evolve ventures that can succeed in times of rapid change (Markley et al. 2006). Entrepreneurship has been discussed in many venues as a strategy for rural development. Labrianidis (2006) notes that policies that are created to development the entrepreneurial capacity of rural areas must include consideration of the sources of entrepreneurship and develop the appropriate support networks and infrastructure.

Creative

One of the main terms of the research is creative. As defined by Oxford Languages (2022) creative is “relating to or involving the use of the imagination or original ideas to create something”. Florida (2002) notes that creativity has become the decisive force of competitive advantage over the past few decades. Creativity requires a social and economic environment that can accommodate the many forms of it. Creativity comes from people and cannot be defined by gender, race, ethnicity or sexual orientation (Florida 2002). Kerr et al. (2017) further defines creativity as the generation of original, useful, novel ideas and things.

2.2 Regional Development Context

2.2.1 What is Regional Development

Local and regional development has become a global issue and is impacted by shifting theories and ideologies that are reflected in government structures and different policies. Development has mainly been associated with economic concerns and growth. Gross domestic product (GDP) has long been an indicator of development, but development consists of many other factors than just that. Seers (1969) argues that poverty,

unemployment, inequality, education, and rights of citizenship should also be incorporated into the measurement of development. There has been progress to disassociate growth from development and new measures have been adopted on the global scale such as the OECD Better Life Index (Pike et al. 2016). These indices are an effort to define development with measures of wellbeing rather than economic output (Pike et al. 2016). The indicators of the OECD Better Life Index are: housing; income; jobs; community; education; environment; civic engagement; health; life satisfaction; safety; and work-life balance (OECD 2022).

Agglomeration

Urban agglomeration and regional economic specialization have been accelerated by globalization (Pike et al. 2016). Agglomeration is the concept that businesses locate themselves near other businesses based on factors of sharing, matching, and learning mechanisms (Duranton & Puga 2003). Urban areas facilitate sharing through many indivisible public goods, production facilities, and marketplaces. Urban areas allow businesses to be near each other which reduces transportation costs as well as time to transport goods. An additional benefit of agglomeration is the sharing of risk. Labor pooling occurs with agglomeration which provides a constant market of skill and labor. Another factor of agglomeration is matching, where urban areas provide better chances of matching jobs to unemployed workers as well as matching buyers and sellers in a market. Finally, an emphasis is placed on learning and urban areas provide face-to-face interactions with others as well as more opportunities by bringing a large number of people together (Duranton & Puga 2003).

However, even though agglomeration has perceived benefits, it should be noted that agglomeration patterns vary considerably depending on the local environment and industries present. Geographical sources of economic growth also vary and there is potential for development in many places outside urban areas or economic centers. Factors other than agglomeration matter more for regional development such as human capital and innovative capacity and different time periods and geographical settings (Pike et al. 2016). Wealth inequality between regions further exasperates broader inequalities in regional development. Inequality diminishes shared sense of citizenship and weakens social solidarity. Economically, inequalities have impacts that limit growth and reduce demand and consumption of groups with declining incomes. A smaller gap between the rich and the poor creates happier and more peaceful societies. On the contrary, more inequality between rich

and poor erodes trusts, increases anxiety and illness and increases crime and murders (Pike et al. 2016).

Path Dependency

Path dependency describes how choices that were made in the past determine the path of the future (Kokorsch & Benediktsson 2018b). It is not strictly a predetermined future, but established directions influence the direction that a community may take based on what was done in the past. It can be difficult to change the path that a community may be on when decisions are made based on directions that worked in the past. It is also important to understand the concept of lock-in when discussing regional development. This is the concept that while there were strengths of geography, networks, existing infrastructure, and interrelated companies at one point, these turn into barriers to changing the course of the community and ultimately innovation (Kokorsch & Benediktsson 2018b).

Endogenous strategies

Endogenous regional development strategies are simply a bottom-up approach where ideas come from the people of the region, rather than a top-down approach. Endogenous strategies are often accompanied with resilience thinking. Endogenous strategies come from within the community and should not be implemented unnaturally (Kokorsch & Benediktsson 2018a)

Exogenous strategies

Exogenous regional development strategies are a top-down approach where ideas come from the government and filter to regions and local places. Examples of exogenous strategies are restructuring of ministries, national political economics and macro-economic shifts (Pike et al. 2016).

2.2.2 Regional Development and Innovation

When it comes to regional development and innovation, innovation has been observed to have an uneven spatial distribution. This unevenness is attempted to be explained through four hypotheses of how and where innovation occurs (Gordon & McCann 2005). The first hypothesis is built on the product cycle of Vernon (1966) and theorizes that the geography of innovation is explained by having some sectors of economic activity which are more involved in innovation processes than others. The locations of these industries are based on

different factors, which means they do not locate in any certain location (Gordon & McCann 2005).

The second hypothesis is also based on the product cycle of Vernon (1966) and explains that the geography of innovation is the result of spatial differences in the phases of product or profit cycles (Gordon & McCann 2005). Firms that are in an early stage of innovation do not have the scale of production or certainty of growth to be self-sufficient. Therefore, they rely on having access to appropriate skills and sub-contractors for successful innovation and management of uncertainties. In this theory, it is not the distribution of innovative or creative potential, but rather the production conditions that allow new firms and industries to survive in a new environment until they reach a level where they are able to be self-sufficient. The difference between the first and second hypotheses is that the first one assumes that firms are primarily static in terms of where they choose to locate, but the second one assumes that firms are dynamic in where they locate (Gordon & McCann 2005).

The third hypothesis does factor in the geography of creativity and innovation as well as place characteristics that favor development and new or improved products (Gordon & McCann 2005). This theory is based on three key sets of factors. The first factor is having a pool of skills, ideas, technologies and cultures where new ideas can emerge. The second is an accepting environment of unconventional initiatives to the marketplace. The third factor is having a competitive atmosphere with selection criteria that is shaped by wider future markets. These environmental factors allow innovation to occur by having competitions between firms, but also by allowed followers to cluster around leading innovators. This creates a range of innovation from new firms as well as established ones (Gordon & McCann 2005).

The fourth hypothesis of the geography of innovation is that innovation is most likely to occur in small and medium-sized companies whose spatial patterns do not follow a pattern (Gordon & McCann 2005). Small and medium-sized companies do not have the scale or risk-bearing capacity to be totally self-sufficient. Therefore, they must locate themselves based on factors such as external economies of agglomeration instead of internal economies of scale. The key factors of innovation at this scale are trust relations between collaborators and their capacities to operate in an innovative environment and an absence of fear of retaliations after reorganizations of inter-firm relations (Gordon & McCann 2005).

Gordon and McCann (2005) note that these hypotheses are not specific about the scales at which key factors operate in any which one. Additionally, there is no evidence of why one hypothesis should be more prevalent than others.

Braczyk et al. (1998) adds to this theory that the differences in the development of regions can no longer be explained as a result of physical and financial resources, but instead they must be seen as a result of regional actors applying practical techniques to the available resources to create different organizational and technical abilities. Social innovation is critical for the success of neo-endogenous regional development through processes of collective learning, coordination and communication between different regional actors (Neumeier 2011).

2.2.3 Icelandic Context of Regional Development

The structure of the Icelandic government is based on two levels – the state and the municipalities. While intermediate county levels exist in other places, it is not so the case in Iceland and the state government generally has the responsibility of rural development policies while municipalities serve as important actors in bridging the gap between the state and constituents. In Iceland, national rural policy and regional development policy is combined as one policy initiative (Aradóttir & Jóhannesson 2007).

There have been various rural development plans for individual regions of Iceland that have been carried out since the 1960s. However in 1991, a governmental policy was passed that the governmental will strengthen manufacturing and services in growth regions in rural Iceland. Over the next ten years, manufacturing jobs were lost and created in various services. Up until 1999, the Prime Minister was responsible for rural development affairs, but at that point a new act was passed that transferred the responsibility to the Minister of Industry and Commerce. This act changed rural development to more specific actions rather than being a representation of national policy. However, even though four rural development plans have been passed since the 1990s, the growth regions had not been defined until the third plan. This one stated that Eyjafjörður was a growth region since it was the most populous area outside of the capital region. The growth region principle was supervised by specific ministries and the Institute of Regional Development (Aradóttir & Jóhannesson 2007).

The divide between the state and municipalities is still prevalent as there are not requirements for municipalities or regions to form a specific policy or plan for economic and social development (Aradóttir & Jóhannesson 2007). Regional planning is influenced by the Institute of Regional Development (Byggðastofnun), whose main objective is to strengthen settlement and economic activity in non-capital regions. The institute is responsible for preparing, planning, and financing projects that are aligned with its main objective. Additionally, it is responsible for monitoring settlement and economic activity.

Nýsköpunarmiðstöð Íslands was also an actor of regional development until it closed down in 2021. Nýsköpunarmiðstöð Íslands' role was to assist entrepreneurs in evaluating business ideas through counselling and support. They encouraged innovation and advised on how to improve business productivity (Aradóttir & Jóhannesson 2007). However, according to Law 25/2021 the Icelandic Innovation center was closed down and a technical center replaced it (Alþingi 2021). It is unsure how this closure has affected innovation in Iceland.

Another actor of regional development are the eight economic development corporations in each of the regions outside of the capital region. These corporations are usually run as a joint operation between Byggðastofnun and the municipalities. Their main role is to facilitate economic development and innovation through specific projects or services to firms, entrepreneurs, organizations and community groups. They act as the leader or regional actors and implement the regional growth agreements (Aradóttir & Jóhannesson 2007).

These economic development corporations take the names of Vestfjarðastofa, Heklan, Austurbrú, SASS, SSNE, SSV, and SSV (Byggðastofnun 2022). These organizations are responsible for funds such as the Fragile Communities (Brothættar byggðir) grants and Development Funds (Uppbyggingasjóður) which are annual funds allocated to the regions they operate in. They serve as an endogenous approach to regional development by allowing residents to propose regional development projects.

2.3 Migration

2.3.1 Factors of Migration Intention

It is important to consider what factors influence people to migrate. Ravenstein was one of the first migration researchers and is documented as far back as the 1880s with Ravenstein's

papers on internal migration in England (Greenwood & Hunt 2003). In these papers, Ravenstein developed seven laws of migration which laws four, six, and seven are below.

- Law 4: Each main current of migration produces a compensating counter-current.
- Law 6: The natives of towns are less migratory than those of the rural parts of the country
- Law 7: Females are more migratory than males.

From these laws, conclusions can be drawn such as distance appears to deter migration, large cities with vibrant economies are the direction of most of the migration, and that place-to-place migrations depend on the population sizes of both the origin and destination (Greenwood & Hunt 2003).

It was not until the 1930s that migration research emerged as a subject of scientific study, which was catalyzed by urbanization and the Great Depression (Greenwood & Hunt 2003). These two factors are connected through employment opportunities. Large cities with vibrant economies attract migration, but many people moved to urban areas during the Great Depression to find employment (Greenwood & Hunt 2003).

In 1938, as United States migration research started to take off, Dorothy Thomas described many differentials to migration that complemented Ravenstein's early work (Greenwood & Hunt 2003). She details seven different factors that affect migrations: Age, Sex, Family Status, Physical and Mental Health, Education, Occupational, and Motivation and Assimilation. These are further described below (Greenwood & Hunt 2003).

Age

Through her research, Thomas advised that age differentials may vary by the characteristics of the origin of the destination, distance of migration, family status, and business cycle phase (Greenwood & Hunt 2003). Another indirect method that Thomas utilized was looking at concentrations and deficiencies of age groups that have been known to have been affected by migration. By comparing a known migration pattern between rural and urban areas, this method allows another way to compare migration patterns based on age groups, of migration, family status, and business cycle phase (Greenwood & Hunt 2003).

Sex

There are both direct and indirect approaches to analyze sex differentials of migration, which are similar to those of age differentials. Both Thomas and Ravenstein found that females are more likely to migrate than men, but Thomas notes that urbanization is not selective of females (Greenwood & Hunt 2003). There are many factors to migration, and again Thomas notes that the business cycle and economic and social factors of the origin and destination should also be taken into account (Greenwood & Hunt 2003).

Family Status

Thomas noted that studies of family status had been limited up to her research and stated that no conclusion could be drawn about the relationship between migrants and family status. It was not until 1977 when Mincer developed a theory of family migration. Mincer (1977) recognized that family migration is motivated by net family gain and not net personal gain. Families are generally less mobile than persons without spouse and children (Mincer 1977).

Physical and Mental Health

There is indirect evidence that rural-to-urban migration is in search of “better lives” that are not available in rural areas. Marshall’s 1948 work theorized that the strongest people migrate to cities which has implications for rural stability and community life (Greenwood & Hunt 2003).

Education

Education has been the focus of several migration studies with most finding that better educated people are more likely to migrate to cities. There are several issues with studying education in this manner such as the sample size of the studies being too small, varying techniques, and little control of the variables in the study. Due to these issues in research, a clear conclusion cannot be drawn between education and migration. In Thomas’s 1938 research, she raised concerns about the methods of studying this relationship. It is also noted that it is unsure whether migrants are more educated than nonmigrants or if migrants go to places that are more intellectually stimulating (Greenwood & Hunt 2003).

Occupational

There are many occupational considerations when studying migration. Rural-to-urban migration has already been considered in the context of improved livelihood and prosperous centers. Thomas studied whether migration is correlated to occupational change and not if particular occupations were the reason for migration. She concluded that occupational considerations need to include a behavioral aspect of the initial motivation for migration (Greenwood & Hunt 2003).

Motivation and Assimilation

There are several motivating factors for migration. Thomas reviewed a study that was performed by Kiser in 1932 of the migration of African Americans from St. Helena Island off the coast of South Carolina between the end of the Civil War and 1928. Thomas made a few conclusions from the study such as young people were dissatisfied with rural conditions and also gained knowledge that their friends were successful in cities. Economic and recreational opportunities that were available in cities seemed vibrant compared to the rather uneventful life on farms. However, even though general dissatisfaction with rural life is a predisposition to migration, Thomas notes that there are usually specific or concrete incidents that lead people to migrate. Thomas cannot draw conclusions of whether people who migrated have had a better life because of it, but there is freedom from the limitations of the rural environment. She notes that migrants may enjoy developing interests in vocational and cultural fields, as well as opportunities for more education (Greenwood & Hunt 2003).

2.3.2 Migration in the Icelandic Context

Iceland has a unique situation in terms of migration. The country has rapidly developed over the last century and the population has grown from about 85,000 in 1910 to around 369,000 inhabitants in 2021 (Statistics Iceland 2021). The country's population is anticipated to grow at a steady rate for the next half century, ultimately projected to be around 452,000 by 2066 (Statistics Iceland 2021).

However, this population growth is not equal throughout all parts of the country. In the period 1910 to 2001, the population of the capital area grew by a factor of 12, while the rural areas around the coast grew by a factor of about 1.5 (Bjarnason & Thorlindsson 2006).

Today, the capital region accounts for more than half of the country's entire population at around 64% (Statistics Iceland 2021).

This unequal growth can be attributed to various factors, but most notable is the Individually Transferable Quota (ITQ) natural resource management policy that was adopted in the 1980s. Its purpose was to manage the fishing stocks as well as creating more economical units for the extraction industry (Bjarnason & Thorlindsson 2006). As stated in the first article of the Fisheries Management Act, "the exploitable marine stocks of the Icelandic fishing banks are the common property of the Icelandic nation. The objective of this Act is to promote their conservation and efficient utilization, thereby ensuring stable employment and settlement throughout Iceland" (Alþingi 2006). However, when the quota became freely transferable in 1990, fishing rights were centralized, affecting many Icelandic fishing communities who relied on them (Kokorsch & Benediktsson 2018b). Likewise, agricultural production limits were implemented which has affected the viability of farms. These policies have affected many rural communities in terms of unemployment, decreasing housing values, and demoralization (Bjarnason & Thorlindsson 2006).

Other factors that affect Icelandic rural-urban migration are how long adolescents have lived in a particular community, and the longer they have lived in a place the less likely they are to migrate. Additionally, if family and friends live in other communities, it is more likely that migration will occur to those communities. Smaller communities that are tightly connected may offer limited recreational opportunities and less freedom and privacy to explore social and individual identities. Women are more affected by this closeness and some find them to be oppressive. As a result of this, women and youth tend to migrate from rural communities, which results in a disproportionate number of males over the age of 45. Employment is also a major factor in migration intentions and is connected to social mobility aspirations. Rural communities tend to have less employment opportunities and therefore less social mobility which affects migration intentions (Bjarnason & Thorlindsson 2006).

The decision to migrate starts at an early age and is based on many factors. Bjarnason & Thorlindsson (2006) studied migration intentions in Icelandic youth through national surveys conducted in 1992 and 2003. Through an analysis of these surveys, they found that males were less likely to migrate than females. However, when comparing gender differences with job prospects, they found that the gender differences found in migration

tendencies are related to employment opportunities. In other words, it depends on the type of work available for males and females' migration intentions. When considering family differentials, the research found that there is not a difference between youths who live with both biological parents and those who live in other types of family situations. There is an increase in migration intention based on parents' level of education, but it was not statistically significant. There is a statistically significant relationship between family support and migration intentions. Furthermore, youths who had greater parental support are less likely to migrate (Bjarnason & Thorlindsson 2006).

Community context is also a factor in Icelandic youth migration. When comparing fishing communities to farming communities, those who lived in farming communities were more likely to migrate than those in fishing communities. If youths were not raised in the community, they were more likely to migrate than those who were. The research found that greater well-being at school resulted in a higher likelihood of migration. When considering employment opportunities, those who wished to work in the primary industry were more likely to stay in the community. The strongest predictor of migration intentions in Icelandic youth was found to be the belief that a better-paid job could be found elsewhere, resulting in 25.7 times more likely to migrate in the 2003 survey (Bjarnason & Thorlindsson 2006).

Family economic status was found to influence migration intentions and adolescents who perceived their family to be better off financially were more likely to migrate than those who were worse off. If adolescents had higher perceptions of the social status of skippers and farmers, they were less likely to migrate. Additionally, the perceived future importance of fisheries did not have a significant impact on migration intentions. When looking at the effects of national pride, local identity, and Icelandic nationality on migration intentions, individuals were less likely to migrate with increases in national pride and local identity, but Icelandic nationals were more likely to migrate than their non-Icelandic peers (Bjarnason & Thorlindsson 2006).

Bjarnason & Thorlindsson (2006) found that 69% of adolescents in Icelandic fishing and farming communities are expected to leave their home community, resulting in further population decline. Youths who identify with the local community are less likely to migrate. However, believing job prospects are better somewhere else and lack of interest in the primary industry are the main reasons for migration intentions.

Comparing these factors with those found in early migration work, Bjarnason and Thorlindsson (2006) confirm that Ravenstein's theory that more women migrate from rural to urban areas is consistent in the Icelandic research. The resulting low female sex ratio is a reflection of a dominance in the primary industry as well as long-term population decline. Rural communities often can cause women to feel claustrophobic, further increasing migration intentions. Because of the informal networks of social support in rural communities, there is often substantial unpaid work that women are expected to complete. Migration from rural Iceland communities may open new economic, social, and cultural opportunities for adolescents which is a serious threat for the viability of these communities (Bjarnason & Thorlindsson 2006).

Compared with other Nordic countries, Iceland has the highest rates of internal migration and highest rates of international immigration (Garðarsdóttir et al. 2020). Garðarsdóttir et al. (2020) studied Icelandic migration trends from 1986 to 2017 focusing on migration between the Capital Region and the exurban regions as well as other more distant regions. Garðarsdóttir et al. (2020) separated these categories to focus on the greater Reykjavik housing market since the cost of housing in the Capital Region is far greater than other parts of the country and can influence migration. While Iceland has the highest rates of internal migration of the Nordic countries, generally internal migration has decreased during the period of 1986 to 2017. When looking at rural-to-urban migration patterns, migration from the outlying regions to the capital area has decreased from 20 per 1,000 in 1986 to nine in 2017. Likewise, counter-urban migration from the capital area to the outlying regions has decreased 13 per 1,000 residents in 1987 to eight in 2017 (Garðarsdóttir et al. 2020).

The overall decline in internal migration is due to the decline in migration from the outlying regions to the capital region (Garðarsdóttir et al. 2020). The reasons for this decline in migration from the outlying regions to the capital area could be due to more migration to the exurban regions, as well as more migration between the outlying regions and other countries instead of internally migrating. The last reason could be because mobility has increased between the outlying regions and the capital region (Garðarsdóttir et al. 2020). However, Garðarsdóttir et al. (2020) goes on to further show that there are few signs of changes in this mobility. However, one possible explanation for this is that outlying region populations have aged in place and the age profile of outlying regions is older than the capital region (Garðarsdóttir et al. 2020). While internal migration can be shown to be generally decreasing

between the period of 1987 to 2017, it should still be reiterated that Iceland still has the highest rates of internal migration in the Nordic countries and there is little evidence in migration slowing down significantly (Garðarsdóttir et al. 2020). Migration is therefore a prevalent social issue in Iceland.

Further expanding on internal migration, Bjarnason et al. (2021) studied the role of micropolitan Akureyri in long-term urbanization and microubanization in Iceland. The rural population of Iceland is highly mobile with 90% of residents having lived elsewhere for more than at least a year (Bjarnason et al. 2021). Bjarnason et al. (2021) found that Akureyri, as a micropolitan center, retains population in the north of Iceland by provided an alternative destination to the Reykjavik capital area or other countries. This clarifies some of Garðarsdóttir's (2020) hypotheses around internal migration. Garðarsdóttir (2020) theorized that internal migration is slowing down to increased mobility between the capital area and the outlying regions as well as migration to the exurban regions. However, Bjarnason et al.'s (2021) research shows that micropolitan centers may capture more of the internally migrating population by not migrating to the capital area. It is unsure which theory best describes the relationship of internal migration in Iceland.

2.3.3 Issues of Migration

Migration can have both positive and negative effects on communities. On one end, in-migration may allow for new people and ideas to come into a community. But on the other hand, migration could also deplete populations of a certain demographic due to other social pulls.

Brain drain is defined as the transfer of resources in the form of human capital and typically refers to the migration of highly educated individuals from developing to developed countries (Bjarnason and Edvardsson 2017). On a larger scale, globalization has resulted in human capital to agglomerate where human capital is already generous. Additionally, host countries have used quality-selective immigration policies to attract global talent (Beine, Docquier, & Rapoport 2008). On an Icelandic scale, migration from rural to urban areas is prominent due to the factors previously described.

Bjarnason and Edvardsson (2017) studied the pathways of Icelandic university students during the 1991-2015 period. Higher education contributes to regional and rural decline by

attracting students from rural areas while preventing the return of graduates due to lack of employment opportunities. Professional careers are often pursued in urban areas or global job markets. Aggregation of university graduates in urban areas directly contributes to increased productivity and innovation and entrepreneurship while helping create diverse environments with amenities and occupational opportunities. Conversely in rural communities, the lack of university educated individuals can reduce successful local innovations and entrepreneurship and may affect the chances of outside investments that need an educated workforce. This spills over into amenities and services, such as health services, education, cultural activities, and recreational opportunities (Bjarnason and Edvardsson 2017).

One strategy that has been implemented to attempt to counteract the rural-urban divide is regional universities. The University Centre of the Westfjords is an example of this strategy. Regional universities have positive effects such as diversification of industries, support of innovation and entrepreneurship, and collaboration with local actors for regional development, but these impacts tend to be geographically limited. However, online distance education is an effective way of expanding this university reach to rural communities which helps reduce brain drain to urban areas. Additionally, distance education may just simply delay out-migration during the studying period (Bjarnason and Edvardsson 2017).

There are seven higher education institutions in Iceland and Bjarnason and Edvardsson studied the pathways of all graduates from these institutions between metropolitan, exurban, micropolitan, and rural areas over a ten-year period. There are several factors for choosing a university including gender, race and ethnicity, social class, attachment, individual values, and ambitions. Additionally, geography is a large factor for choice of universities and generally the closer one lives to a university affects intention to enroll. After university, there are several pathways for graduates and can be categorized into the following:

- Local who studied outside the region but moved back with a degree
- In-migrant who moved to a region to study and stayed after getting a degree
- In-migrant who moved to the region after graduation from a university outside of the region

In the Icelandic context, the largest higher education institution is the public University of Iceland (UI) in Reykjavik. This university accounts for 68% of all university students in the

country. Additionally in Reykjavik there is the private Academy of Art and Reykjavik University. The second largest university is the public University of Akureyri (UNAK), which accounts for 68% of all students outside of the Capital Area. The remaining institutions are Bifröst University, Icelandic Agricultural University and Hólar University College. Bjarnason and Edvardsson (2017) mapped the pathways of university students based on where they lived five years before graduation and five years after. The research was grouped into four study areas - Capital Area, Southwest Exurban Region, North Central Region, and Other Regions.

For Capital Area students, those that can easily access UI, it was found that 1 of 20 UI students lived in other parts of the country five years after graduation. Students were twice as likely to move abroad than to migrate within Iceland. The majority of students still lived in the Capital Region after graduation (Bjarnason and Edvardsson 2017).

For Capital Area students that attended UNAK, about 1 of 8 on-campus UNAK students lived in the Northern Central Region, while about 10% of students lived in other parts of the country. Again, most Capital Area UNAK students returned to the Capital Area after graduating (Bjarnason and Edvardsson 2017).

For Southwest Exurban Region students, those that are within commuting distance to UI, it was found that about half of these students lived in their home community five years after graduation. Some students moved to the Capital Region, with just 3% of graduates moving to other regions in the country and 7% moving abroad (Bjarnason and Edvardsson 2017).

For Students from the North Central Region, those that are near UNAK, it was found that one of three who attended UI had migrated back to the North Central Region five years after graduation and about half had remained in the Capital Region. Around 75% of North Central Region students who attended UNAK were still in the region five years after graduating. However, only 3% moved to other regions and 8% moved abroad (Bjarnason and Edvardsson 2017).

For Students from Other Regions, those not within close proximity or commuting distance to a university, it was found that 39% returned to their home region within five years after graduation. 43% had moved to the Capital Area, 5% had moved to the Exurban Region, and 5% had moved to the North Central Region. 8% moved abroad. The 43% of students who

remained in the Capital Region shows the brain drain from rural areas to the Capital Region. UNAK graduates from the Capital Area are more likely to live in other parts of Iceland than those who graduated from UI. UNAK distance students are more likely to live outside of the Capital Area. UNAK graduates from other regions are less likely to live in the Capital Area (Bjarnason and Edvardsson 2017).

About 64% of the population of the country and 76% of university educated people live in the Capital Area of Reykjavik. The University of Iceland has contributed to this uneven distribution since it was the only university in Iceland during the time of rapid urbanization from 1911-1986 and the largest university in the country. Almost 80% of UI graduates from the Capital Area still live there five years after graduating. Globally, UI has attributed to counteracting brain drain from Iceland to other countries in the world, but it is not very effective in counteracting brain drain within the country itself (Bjarnason and Edvardsson 2017).

When discussing the difference of genders of those from rural regions, it can be theorized that rural men who pursue university education are most likely to do to establish themselves in an urban area after graduation, while rural women are more likely to pursue university education to establish a professional career in areas where there typically is not female employment and the ones that are poorly paid (Bjarnason and Edvardsson 2017).

2.4 The Fourth Industrial Revolution

The Fourth Industrial Revolution, also known as Industry 4.0, will fundamentally alter how people live. Research argues that this revolution is already underway and will be historically different than the previous three due to the velocity at which it will evolve, the breadth and depth of the revolution, and the system's impact on society as a whole (Postelnicu & Călea 2019).

The three previous industrial revolutions have been characterized by linear growth and spurred by specific inventions or discoveries. The first one, which started around 1780 was sparked by the invention of the steam engine. The second revolution started in the second half of the 19th century after electric power was discovered and oil and gas technologies were improved. The third revolution phased out energy intensive industries in combination with the introduction of information technology and the internet. Digital technologies of the

third revolution changed entire business sectors as they dealt with automation and cybernetics (Postelnicu & Câlea 2019).

The third revolution in digital technology has paved the way for Industry 4.0. Digital technologies will be used on a larger scale as robotics increase the efficiency and productivity of work as we know it while reducing production costs. Technologies will fuse together as the entire production system is reformed. Production is already trending to change into a connected information system and evolve from a knowledge economy to a global market of scientific information. In terms of regional economics, Industry 4.0 will reduce manufacturing outsourcing and further reduce the need for industrial activities to relocate to certain geographical locations. Productivity will increase so much that labor costs no longer matter. In the medical field, digital technologies will be able to diagnose diseases better than physicians themselves as well as carry out processes that have only been thought of to be capable by humans (Postelnicu & Câlea 2019).

The increase in efficiency, digital technology, and automation will have a profound impact on the jobs that are available for humans. It is estimated that 65% of current primary school students will work in a type of job that does not exist yet. The labor market will change drastically as it is estimated that a total loss of 7.1 million jobs globally occur because of disruptive labor market changes. Approximately two-thirds of these will be centered on office and administrative roles. However, it is then estimated that 2 million jobs will be created in information and advanced technology. Postelnicu & Câlea (2019) believe that future technologies will not undermine the creation of new jobs but new forms of entrepreneurship will form and working patterns will change.

Within this topic, it should also be discussed that robots will be limited by the software created by humans. Robots will not be able to carry out intellectual work and not be able to share human values like ethics, empathy, emotions, affinity and antipathy. Robots will also never be treated as person with legal rights. No matter what robots evolve to, they will only increase humans' capacity to think and create but will not remove it entirely (Postelnicu & Câlea 2019).

It is of the opinion of Postelnicu & Câlea (2019) that Industry 4.0 will ultimately destroy more jobs than create them. Their opinion is based on the argument that computers and robots will perform simple and repetitive tasks for the years to come, but operations that

require more complex knowledge and innovation will still be performed by humans. The International Labor Organization has published several reports that show that approximately 45% of the global labor force might become vulnerable due to new technologies (Postelnicu & Câlea 2019). Smicek & Williams (2015) found that between 47 and 80 percent of today's jobs are capable of being automated.

This net decrease in jobs of Industry 4.0 will be counteracted by the creation of new roles within jobs. Chalmers, MacKenzie & Carter (2021) speculate that three new categories will be added: (1) trainers, who improve the decision making and interpretation of algorithms; (2) explainers, who fill in the gap between AI systems and business managers; and (3) sustainers, who manage ethics and management of the system. Jobs will reform around the AI system and new organizational structures will form in companies as AI is realized and deployed at various scales (Chalmers, MacKenzie & Carter 2021).

Overall, the fourth industrial revolution has the potential to reduce labor demand through full automation which would provide more free time without reducing economic output. However, if this free time is not compensated, it will be of little value if people cannot make ends meet if labor demand is decreased. A solution for allowing people to make ends meet as the fourth industrial revolution continues to transform our society is the idea of a Universal Basic Income (UBI) (Smicek & Williams 2015).

2.5 Unconditional Basic Income

2.5.1 What is Unconditional Basic Income

Unconditional basic income (UBI or borgaralaun), also referred to as basic income, minimum income, basic income guarantee, or universal basic income, is the idea that the government supplies each citizen with a stipend each month to pay for the basic necessities of life to guarantee a minimum standard of living (Cercelaru 2016).

UBI ensures a certain standard of living and eliminates constraints of having a job to meet that standard (Cercelaru 2016). Individuals are free to find jobs that offer satisfaction and the opportunity to feel fulfilled (Cercelaru 2016). Other benefits include bringing better prepared people to the workforce who are eager to learn and evolve (Cercelaru 2016). Since the government provides a living wage already, employers could be able to change wages (Cercelaru 2016). UBI has the ability to change existing social and economic structures

typically characterized by rigid hierarchies of wealth based on race, ethnic, gender, and class divisions (Lacey 2017). There are three keys factors that should be considered to make a UBI meaningful: (1) it must be sufficient to live on; (2) it must be universal and provided to everyone unconditional; and (3) it must complement the welfare state rather than replace it (Smicek & Williams 2015).

Some opponents of UBI commonly cite that it is dangerous to give people something for nothing and that it discourages work and is overall unaffordable (Lacey 2017). For the widespread of UBI adoption to occur, recognition of the effectiveness of UBI programs and by building broad-reaching coalitions for social justice (Lacey 2017). UBI initiatives should consider the larger social and economic context including gender- and race-based divisions as well as wealth distribution (Lacey 2017).

2.5.2 Previous Unconditional Basic Income Experiments

UBI has been discussed as a just solution to distribute wealth and solve poverty for over five centuries (Lacy 2017). UBI can act as a means to offset the impact of neoliberal economics and deliver welfare reform (Lacy 2017). UBI pilot programs have been introduced throughout the world and are summarized in **Table 2.1** below including when they occurred, for how long, and how many people it was distributed to.

Table 2.1 Previous UBI Experiments

#	Name	Where	Dates	Duration	# of People
1	Alaska Permanent Fund	Alaska, USA	Since 1982	Ongoing	Residents of Alaska
2	Eastern Band of Cherokee Indians Casino Dividend	North Carolina, USA	Since 1997	Ongoing	Tribal members
3	The 1970s Experiments	USA	1968-1974	6 years	7,500
4	Stockton Economic Empowerment Demonstration (SEED)	Stockton, California	2019-2020	18-months	125
5	Mincome	Manitoba, Canada	1974-1979	5 years	1,255 families
6	Ontario's Basic Income Pilot Project	Ontario, Canada	2017	1 year	4,000
7	Bolsa Familia Program	Brazil	2003	Ongoing	12 million families

8	ReCivitas Institute	Quatinga Velho, Brazil	2008-2014	6 years	100
9	Renda Basica de Cidadania	Maricá, Brazil	Since 2020	Ongoing	52,000
10	Finland	Finland	2017-2019	2 years	2,000
11	Mein Grundeinkommen	Germany	2014	1 year	500
12	Sanktionsfrei	Germany	2019	3 years	250
13	German Institute for Economic Research	Germany	2020	3 years	120
14	B-MINCOME	Barcelona, Spain	2017	2 years	1,000 households
15	Utrecht	The Netherlands	2017	2 years	250
16	Nationwide unconditional cash transfer	Iran	2011	N/A	N/A
17	GiveDirectly	Kenya	2016	12 years	20,000
18	Basic Income Grant (BIG) pilot project	Otjivero-Omitara region of Namibia	2008-2009	2 years	All residents below 60 years old
19	India's Basic Income Experiment	Madhya Pradesh, India	2011-2012	2 years	6,000
20	Scheme \$6,000	China	2011	1 year	6 million
21	Wealth Partaking Scheme	Macau	2008	Ongoing	700,000
22	Yusaka Maezawa	Worldwide	2020	1 year	1,000

2.5.3 UBI Effects

Through these experiments, various effects have been able to be speculated of the implementation of UBI in regard to meeting the desired outcomes. Some of these include reduction in poverty, better public health while reducing health costs, fewer high school dropouts, less petty crime, more time with family and friends and less bureaucracy (Smicek & Williams 2015).

One of the most well-known examples of UBI is the Alaska Permanent Fund. This permanent cash transfer is universal to those that have resided in Alaska for at least one year. The payment has been up to \$2,000 in recent distributions and is distributed once yearly. The yearly distribution has been in place since 1982. Jones and Marinescu (2022) found that the employment to population of Alaska after the introduction of the fund was similar to synthetic control states. However, the share of people employed part-time increased 1.8 percentage points after the introduction of the fund. The unconditional cash transfer did not

have a significant effect on employment, but it increased part-time work (Jones & Marinescu 2022).

Another recent UBI experiment occurred in Stockton, California, and is called the Stockton Economic Empowerment Demonstration (SEED). The project used donated funds to send payments of \$500 a month to 125 randomly selected individuals who had an average income lower than the city median of \$46,000 per year. There was also a control group that did not receive the transfer. There were no stipulations on how the money could be used and recipients were not required to complete any drug tests, interviews, asset tests, or work requirements. Lowrey (2021) found that the cash transfer reduced income volatility and the money was spent on essentials such as food, home goods, and household bills. Less than one percent went to cigarettes and alcohol. Quantitatively, of those that received the transfer, those with a full-time job rose 12 percentage points, as compared to only five percentage points in the control group. Participants in the study suggested that the money created the capacity for goal setting, risk taking and personal investment. It was found that the recipients were healthier, happier, and less anxious than the control group (Lacy 2021).

In 2020, Yusaku Maezawa distributed JPY 1,000,000 (approximately 1 million ISK) to four groups that were surveyed over the course of a year. The first two groups received a one-time payment in April and October 2020, respectively. The third group received their JPY 1,000,000 in smaller monthly payments over the period of one year. The fourth group did not receive the transfer but contributed to the project as the control (Maezawa Method 2022). The results of the project show that those who received the JPY 1,000,000 were 3.9 times more likely to start a new business, 3.1 times more interested in getting married, and 2.3 times more interested in studying abroad. Over seventy percent of the respondents who received the benefit noted a significant increase in their happiness (MBISE 2020 2020).

The benefits found through UBI experiments were an increase happiness and increase in entrepreneurship as an overall increase in quality of life. The experiments did not find adverse effects such as the participants exiting the workforce or becoming lazy with the cash transfers.

2.5.4 Current Support of UBI

Roosma & van Oorschot (2020) studied support of UBI across Europe. By utilizing the 2016 European Social Survey, Roosma and van Oorschot (2020) were able to map UBI support throughout 23 European countries. The 23 countries were Austria, Belgium, Switzerland, Czech Republic, Germany, Estonia, Spain, Finland, France, Great Britain, Hungary, Ireland, Israel, Iceland, Italy, Latvia, the Netherlands, Norway, Poland, Portugal, Russia, Sweden and Slovenia. The definition used in the survey that Roosma and van Oorschot (2020) analyzed is as follows:

A basic income scheme includes all of the following: the government pays everyone a monthly income to cover essential living costs. It replaces many other social benefits. The purpose is to guarantee everyone a minimum standard of living. Everyone receives the same amount regardless of whether or not they are working. People also keep the money they earn from work or other sources. This scheme is paid for by taxes. Overall, would you be against or in favour of having this scheme in [country]?

The results showed that Latvia had the highest level of support with over 80% in favor of UBI. Norway had the lowest level of support at 34%. Iceland ranked 18th in terms of support with around 48% in support of UBI. Overall, 56% over the respondents were in favor of UBI and 44% against it. Eastern European countries are generally more in favor of UBI than Nordic and Western European countries (Roosma and van Oorschot 2020).

Roosma and van Oorschot (2020) also related UBI support to individual characteristics. They found support increased for people who are in a worse social-economic position, those with egalitarian values, and people who identify with the political left (Roosma and van Oorschot 2020). Roosma and van Oorschot (2020) theorize that support of UBI is based on people wanting to improve conditions for the people who are worse off in their respective country, which may include themselves. Therefore, it may not be the universal characteristic or unconditional nature of the UBI that people support, but that it provides poor people with a guaranteed minimum income (Roosma and van Oorschot 2020).

2.6 UBI and the Welfare State

2.6.1 Considerations of UBI

Smicek & Williams (2015) detailed that for a universal basic income to be successful, it should complement the welfare state and not replace it. In this sense, they expand on four interrelated factors for a successful UBI in the welfare state. The first one emphasizes that UBI is not just an economic transformation, but also a political one. These two major factors are interrelated in a sense that UBI could reform the relationship between labor and capital. While in our current state, the working class is defined by its separation between means of production and subsistence which forces the working class to sell itself in the job market to gain enough income to make ends meet. In today's world, the wealthiest have the ability to choose which job to take and even fewer have the capacity to choose no job. Universal basic income would decouple the relationship between labor and capital, therefore transforming the political relationship with it as well. Workers would gain control over how much labor to supply, which would provide them with power in the labor market (Smicek & Williams 2015).

The second consideration of UBI is that it transforms unemployment from a state of insecurity to a state of voluntary flexibility. Flexible labor is currently defined as insecurity rather than the freedom it could provide. While there have been various labor movements to reduce the number of hours worked every week, the nine-to-five schedules have remained as the prominent work schedule. Little effort is focused on work-life balance and in reality most workers end up well above the standard working hours. A shorter working week would reduce stress, anxiety, and mental health problems created by neoliberalism. UBI has the ability to change flexible labor to be more stable (Smicek & Williams 2015).

The third consideration of UBI would be to rethink the values that are currently attributed to different types of work. With workers now able to choose which work they engage in, they could reject jobs that did not pay well enough, required too much work, do not have enough benefits, or that they did not like for other reasons. In the current labor market, low-waged work is disempowering, and UBI would allow people to choose whether they engage with it or not. This would cause unattractive work to be better paid. However, UBI would create the necessity to automate the worst jobs which would start a positive-feedback loop as the demand for full automation rose (Smicek & Williams 2015).

The fourth consideration of UBI is that it is fundamentally a feminist proposal. It has the ability to overthrow the male breadwinner model by disregarding the gendered division of labor. Additionally, it financially recognizes the unwaged domestic laborers such as those involved in childcare and the reproduction of society. This financial independence could enable experimentation with different family and community structures (Smicek & Williams 2015).

2.6.2 Icelandic Tax Credit System of 1974

UBI has been discussed in the European Union (EU) context through various studies (Ghebrea 2018, Mencinger 2015). Both of these studies set out to determine if UBI was feasible in the EU. Ghebrea (2018) determined that UBI would not have a significant impact on poverty and inequality, but it would have very high costs. Mencinger (2015) found that net costs to the rich would be relatively modest but the idea of introducing UBI on the European level is not feasible. Lacey (2017) found that the Namibian government held a common negative viewpoint of UBI in which that is makes people lazy and depending on hand-outs. While these are not positive stories for UBI, Iceland is a different context than these previous studies. Lacy (2017) notes that it will be important to leverage government officials within the discussions to bring them along in the process and show them the good sides of UBI.

The tax credit system of 1974 is discussed as an early experiment to UBI in Iceland (Karlsson & Matthiasson 2019), but in reality, it does not mimic a universal basic income in terms of the research. While some conclusions are beneficial to consider with the implementation of UBI, the effects should not be considered as representative of a true UBI.

In 1974, Iceland introduced a tax-credit system with a purpose to distribute income and reduce the need for social support. This system could be viewed as Iceland's first attempt at establishing a partial UBI (Karlsson & Matthiasson 2019). The system reduced the base for personal income taxation by 42% and there were income tax brackets based on income, relationship status, and children. It also introduced a tax credit ("skattafsláttur"), which if the tax credit was higher than the taxes due, the balance was paid back to the taxpayer. The tax credit was 11,000 ISK for each individual who declared income and increased to 18,500 ISK for couples with an additional 3,300 ISK for each child younger than 16 living in the household. Special conditions were made for single parents and parents combining their

income for tax purposes. The tax credit could not be higher than 6% of a person's income (Karlsson & Matthiasson 2019).

One stipulation of the tax credit that makes it debatable of whether it could be considered a true UBI is that it could only be used for taxes. The tax credit was intended as income support for those with the lowest income and was based on taxable income (Karlsson & Matthiasson 2019). This tax credit differs from the concept of UBI in many ways. For one, the concept of UBI is given unconditionally to the entire population, regardless of income and is intended to cover your basic needs as described in section E1. While the amount of UBI received does vary based on household size, it does not vary based on individual income.

The tax credit system of 1974 was amended in 1975 after a right-wing government took over. Unused tax credits were no longer paid out, but child benefits were paid out instead. The tax credit system is like one introduced in the United States in 1974 but differs in that there was no income ceiling in the Icelandic version (Karlsson & Matthiasson 2019). While the tax credit system cannot be directly compared to the concept of UBI, there are some lessons learned from the policy. The policy shows that UBI would need strong supporters from the government (Karlsson & Matthiasson 2019) so that it could not be easily rebuked when a new political party is elected. Additionally, the role of the government and parliament must be clearly defined in terms of the specifics of the UBI ((Karlsson & Matthiasson 2019). The amount, duration, and ways to protect UBI must be included in the policy.

2.6.3 Icelandic Welfare Benefits

Iceland has a system of unemployment benefits that is available to wage earners or self-employed workers who lose their job. In order to be eligible for these benefits, you must register with the Directorate of Labour and satisfy the following conditions: be unemployed; domiciled in Iceland; actively seek employment; be able to work; be ready to undertake unskilled work; have been employed in at least a 25% position for 3 of the past 12 months before applying; and be between the ages of 18 and 70. If you satisfy these requirements, you may be entitled to basic unemployment benefits for the first 10 working days after job loss. After that period, eligible recipients may be entitled to income-linked unemployment benefits for up to three months. This income-linked benefit can be up to 70% of their average income. There is an extra pay of an additional 4% for each child. Income-linked benefits last

for up to three months and then they are reduced back to basic benefits and unemployment benefits as a whole are for a maximum of 30 months (European Commission 2022).

The state also provides social assistance in the form of municipal financial assistance for those who cannot support themselves or their children. Each municipality establishes their rules on financial assistance. These benefits typically do not include the cost of supporting children. Another social assistance benefit is rent compensation and is calculated based on the family size, income, and rent cost. Social assistance can also be provided to certain groups in special circumstances, such as old age, disabled, single parents, or children or people suffering long-term illnesses (European Commission 2022).

These benefits provide some sort of assistance in special circumstances and require you to be eligible. Social assistance is not guaranteed and must be applied for by booking an appointment with a social worker and attend an interview (European Commission 2022). It is not sure how cumbersome the application process is, but it appears that it could be quite involved to receive the benefits.

2.7 The Creative Class

2.7.1 Defining the Creative Class

The creative class was defined by Richard Florida in his book *The Rise of the Creative Class* (2002). Through his economic research, he found that a shift in the economy from a corporate-centered system to one that is more people-driven. His research claims an economic need for creativity that has manifested itself into a new class, called the “Creative Class”. Florida (2002) takes a broad approach to his definition of the creative class and defines the core of it to include people in science and engineering, architecture and design, education, arts, music, and entertainment. He also notes a broader group of creative professionals that are in the fields of business, finance, law, and healthcare. The creative class differs from the working class or service class in members of the creative class get paid to use the full scope of their cognitive and social skills as compared to routine, physical work (Florida 2002).

The creative class is important in that Florida (2002) attributes regional growth to the rise of the creative class. Florida further elaborates that creative people feel drawn to urban tolerant atmospheres. These places have low barriers to entry and known for diversity of thought and

openmindedness (Florida 2002). As more of the creative class gather in “tolerant places”, traditional geographical patterns of local and regional development are changing (Pike et al. 2016).

Florida’s occupation-based definition has often been criticized for being too broad. Another method was developed by Creative Trident in 2011 that combined an industry- and occupation-based approach (Sigurðardóttir & Young 2011). These include creative occupations in the creative industry, support occupations in the creative industry, and embedded creative occupations in defined non-creative industries (Cunningham 2011). The method includes ten different cultural domains which encompass the creative industry from an industry-based approach: (1) Cultural and Natural Heritage; (2) Performance and Celebration; (3) Visual Arts and Crafts; (4) Books and Press; (5) Audio-Visual and Interactive Media; (6) Design and Creative Services; (7) Intangible Cultural Heritage (transversal); (8) Education and training (transversal); (9) Archiving and preservation (transversal); (10) Equipment and supporting materials (transversal); (11) Tourism (related); and (12) Sports and recreation (related). These domains are similar to those set forth by Creative Trident, except for they utilize an industry-based rather than an occupation-based approach. Transversal domains are ones that work across all of the core cultural and related domains. Additionally, tourism and sports and recreation were included in the analysis as related industries (Sigurðardóttir & Young 2011).

2.7.2 The Icelandic Creative Class

Sigurðardóttir & Young (2011) used their industry-based approach to map Iceland’s creative industries quantitatively and economically, a task that had never been done or since. The goal of the research was to provide figures on the scale and economic value of the creative industry in Iceland. The research included ten different cultural domains which encompass the creative industry from an industry-based approach. While a lot has changed since the research has been conducted, it provides an insight into what the creative class looks like in Iceland and different industries.

The Icelandic creative class had approximately 10,000 full-time equivalents in 2008 and accounted for approximately 6% of Iceland’s VAT-taxable turnover. Additionally, the creative industry was approximately 3% of the economy's total export revenues in 2009. There are many positive externalities of a creative class, such as a better quality of life and

cultural content for tourists, but it should be noted that tourists are quick to recognize tourist traps (Sigurðardóttir & Young 2011).

The following tables show the relative share of each domain of VAT taxable turnover, salary cost, and number of full-time equivalents. Data was not available for domain (7) Intangible Cultural Heritage.

Table 2.2 Icelandic Creative Industries VAT Taxable Turnover

Domain	2005	2006	2007	2008	2009
(1) Cultural & Natural Heritage	331.2	213.2	297.1	271.8	284.8
(2) Performance and Celebration	2,872.5	8,032.4	9,735.6	4,258.5	8,348.8
(3) Visual Arts and Crafts	4,726.0	3,630.1	4,195.7	4,374.8	4,440.2
(4) Books and Press	57,448.1	54,028.7	74,323.7	61,970.2	69,658.4
(5) Audio-Visual and Interactive Media	31,949.2	29,440.5	42,530.4	44,468.5	41,796.3
(6) Design and Creative Services	21,840.3	18,795.3	22,883.0	20,573.6	14,177.9
(7) Intangible Cultural Heritage	-	-	-	-	-
(8) Education and Training	75.3	46.8	41.5	59.0	72.8
(9) Archiving and preservation	732.4	537.9	780.1	940.1	838.2
(10) Equipment and supporting materials	7,301.9	5,053.1	6,207.0	6,046.5	6,124.8
(11) Tourism	15,970.7	11,731.6	13,644.6	15,552.4	17,868.9
(12) Sports and recreation	622.9	509.6	913.3	856.5	921.3

Table 2.3 Icelandic Creative Industries Salary Cost

Domain	2005	2006	2007	2008	2009
(1) Cultural & Natural Heritage	76.9	97.0	127.6	185.2	223.3
(2) Performance and Celebration	920.8	1,428.8	1,814.5	1,832.2	1,787.1
(3) Visual Arts and Crafts	775.6	883.9	1,001.1	1,054.2	1,071.5
(4) Books and Press	5,331.6	7,642.8	9,692.7	10,138.6	8,033.0
(5) Audio-Visual and Interactive Media	1,982.0	2,792.1	3,406.0	5,419.0	5,604.4
(6) Design and Creative Services	2,006.3	2,498.1	3,294.0	3,597.9	2,386.4
(7) Intangible Cultural Heritage	-	-	-	-	-
(8) Education and Training	980.0	1,245.0	1,462.9	1,592.3	1,606.6
(9) Archiving and preservation	540.8	574.6	664.9	720.8	946.2
(10) Equipment and supporting materials	329.3	363.5	435.0	495.7	364.1
(11) Tourism	1,856.9	2,217.1	2,864.8	3,258.4	3,255.3
(12) Sports and recreation	93.2	119.9	154.4	191.7	176.5

Table 2.4 Icelandic Creative Industries Full-Time Equivalents

Domain	2005	2006	2007	2008	2009
(1) Cultural & Natural Heritage	56.0	60.6	76.7	95.3	102.7
(2) Performance and Celebration	549.7	796.0	908.5	900.3	847.0
(3) Visual Arts and Crafts	484.5	516.3	542.9	580.7	602.8
(4) Books and Press	2,407.0	2,948.8	3,249.8	3,297.4	2,747.9
(5) Audio-Visual and Interactive Media	701.5	920.7	1,086.3	1,470.2	1,389.7
(6) Design and Creative Services	605.8	706.9	862.0	889.8	703.7
(7) Intangible Cultural Heritage	-	-	-	-	-
(8) Education and Training	527.1	594.4	624.7	640.3	641.1
(9) Archiving and preservation	313.7	281.9	313.5	321.6	499.1
(10) Equipment and supporting materials	83.4	91.9	99.5	103.6	76.4
(11) Tourism	902.6	1,001.7	1,189.2	1,264.3	1,217.9
(12) Sports and recreation	57.0	79.7	86.6	94.8	94.0

The tables show that the creative industries have a wide range of sizes, from as small as 56 full-time equivalents in the Cultural and Natural Heritage domain in 2005 all the way up to 3,298 full-time equivalents in the Books and Press domain in 2008. From a gross employment standpoint, 2008 had the highest employment in the creative industries of the five-year period at roughly 9,659 full-time equivalents. Books and Press is the leading domain in terms of VAT taxable turnover, salary cost, and full-time equivalents for the five-year period. It should be noted that the data is not a complete representation of the creative class, due to UNESCO defined VAT taxable activities. Secondly, the data is corrected based on 2009 data, which may not be fully representative of business that were not correctly registered or closed before 2009. The data should be taken as an estimation of relative cultural domains and not fully representative (Sigurðardóttir & Young 2011).

2.7.3 Creative Industries Support Systems

Iceland has several funding schemes, grants, and stipends available for the creative industries. The following table summarizes some of them.

Table 2.5 Icelandic Creative Industries Support Systems

Support System	Type
Artists' Stipend	Grant
Icelandic Film Fund	Grant
Refunds on film production costs	Partial Reimbursement
Music Fund	Grant
Loftbrú¹	Flight discount
Non-Fiction Writers' Fund	Grant
Museum Fund	Grant

These support systems are government funded with varying types of disbursements from multi-month salaries to partial reimbursements for costs incurred. The Artists' stipend is one of the few that grants a living wage. The fund is distributed through six different funds and equates to 1,600 monthly salaries. The salaries shall be ISK 266,737 per month at 2009 budget prices which equated to ISK 409,580 in 2021. The salaries are awarded for six, nine, twelve, eighteen, or twenty-four month periods. The grants do not have formal requirements

¹ A support instrument not dedicated to artists only, but a air fare discount of 40% for residents of rural areas.

but do require an interim and final report to be submitted to document the work completed (Rannís 2022).

These support systems are not the only ones that support the creative industries. There are various other grants available through institutions such as the Icelandic Centre for Research (Rannís), Icelandic Regional Development Institute (Byggðastofnun), and the regional development corporations. The institutions each distribute various grants such as Fragile Communities (Brothættar byggðir), development funds (Uppbyggingarsjóður), and research projects like Fostering Innovation Ecosystems in Rural Iceland (FIERI), and the Student Innovation Fund. Each of these grants provide residents and creatives an opportunity to bring endogenous regional development strategies to funding. It is unsure how many of the creative class rely on these grants for their projects and ideas to come to fruition.

3 Methodology

3.1 Theoretical Framework

Innovation

For the research, innovation follows Neumeier's (2011) definition of social innovation in which it is not a tangible improvement, but it is the change of attitudes, behaviors, or perceptions that result in a new form of collaboration. These innovations can be hard to identify and can take many forms. For the importance of the research, it is important to understand that these innovations do not necessarily have to have an economic impact.

Entrepreneurship

Entrepreneurship is defined as ones see new opportunities, forecast threats, and evolve ventures that can succeed in times of rapid change (Markley et al. 2006). Entrepreneurship is generally noted with the creation of a business.

Unconditional Basic Income

The working definition of UBI for the research is as follows: It is a thought experiment where a set amount of money is distributed monthly to every Icelandic citizen (no age requirement). It would replace most social benefit payments such as housing benefits, unemployment benefits, and/or child allowances. It is intended to help pay for your basic needs (i.e. housing, transportation, and/or food). Payments would be distributed without an end date. The research does not study the feasibility or funding of UBI, but rather what the impacts of UBI could be if it was implemented.

Regional Development

Regional development is defined as anything that improves wellbeing rather than economic output. These factors, as defined by the OECD Better Life Index are: housing; income; jobs; community; education; environment; civic engagement; life satisfaction; safety; and work-life balance (OECD 2022).

Creative Class

The creative class is defined as people who use their imagination and original ideas to create something (Oxford Languages 2022). The creative class can be organized into industries as

Sigurðardóttir & Young (2011) have. These industries provide an insight into what the creative class looks like in Iceland. The industries are: (1) Cultural and Natural Heritage; (2) Performance and Celebration; (3) Visual Arts and Crafts; (4) Books and Press; (5) Audio-Visual and Interactive Media; (6) Design and Creative Services; (7) Intangible Cultural Heritage (transversal); (8) Education and training (transversal); (9) Archiving and preservation (transversal); (10) Equipment and supporting materials (transversal); (11) Tourism (related); and (12) Sports and recreation (related).

Migration Intentions

It is important to understand migration intentions for the purposes of the research. Migration intentions are a moderate to strong predictor of actual migration in various communities around the world. Migration intentions are not directly association with actual migration since some individuals fail to leave as planned, or others fail to stay (Bjarnason & Thorlindsson 2006).

3.2 Theories of Research Design

3.2.1 Mixed-Methods Approach

For this research, mixed-methods was used in the form of interviews and survey as well as quantitative and qualitative methods. Quantitative research aims to provide an explanation between the relationships of variables in a study. In qualitative research, the goal is to use theory as a broad explanation. The theory is ground in the views of participants and conclusions of the research are drawn from them (Creswell 2009).

For the quantitative portion of the research, variables are related to answer a research question. Independent variables are those that cause influence or affect outcomes while dependent variables are those that depend on the independent variables (Creswell 2009). For the qualitative portion of the research, it used broad explanations for behavior and attitudes and may also include variables, constructs, and hypotheses. In qualitative research, themes may emerge that provide a series of hypotheses that are ready to be tested (Creswell 2009). For the research, qualitative methods will be used to answer the research question if UBI could foster innovation and migration to rural communities in Iceland.

3.3 Methods

3.3.1 Interview Development

Interviews were developed to utilize a semi-structured framework. The semi-structured framework allows for flexibility when conducting the interview to allow it to change direction if one topic becomes more focused than one of the others (Dillman et al. 2014). An interview guide was developed to test certain themes and questions that could potentially be used for the survey in the future.

The interview guide was developed based on the following themes:

1. Interviewee introduction
2. Understanding interviewee's current work
3. Understanding migration history
4. Understanding innovative capacity
5. Developing an understanding of UBI
6. How would UBI affect you and your community?

The Interview Guide can be found in **Appendix B**.

3.3.2 Interviewees

Interviewees were selected based on their area of expertise that were deemed relevant to the research. The expertise were focused on the following areas:

- Local innovator perspective
- Agency perspective
- Economist perspective
- Creative class perspective
- Migration perspective
- Political perspective

A total of 7 interviews were conducted. Five interviews were conducted before the survey was distributed and 2 interviews conducted after the survey closing date. The final two interviews used the interview guide but focused more on the interviewee's perspective from their field of expertise instead of informing the survey. The interviews were conducted after the survey closing date to still inform the research in terms of the migration and political perspectives.

3.3.3 Interview Collection & Analysis

The interviews were conducted with Zoom video conferencing software and recorded with the interviewee's consent. Live transcription was utilized which provided a written transcript of the interview after it was completed. The interviews typically lasted no more than an hour in length.

The video recordings and live transcriptions were referred to when developing the survey and connecting results. No formal analysis was conducted on the interviews for the research.

3.3.4 Survey Development

The survey was developed in close coordination with my supervisor based on principles set forth in the book *Internet, Mail, and Mixed-Mode Surveys: The Tailored Design Method* (Dillman et al. 2014). When developing a survey, it is important to expect the respondents state of mind. Questions must be thought about how they will be heard and interpreted from the respondent (Dillman et al. 2014). The survey was administered through Survey Monkey

and was offered in English and Icelandic languages. Users could switch to their preferred language from the homepage of the survey.

The survey was divided into the following sections and themes.

1. Respondent introduction and main occupation
2. Understanding characteristics of living place and main occupation
3. Introduction to UBI in terms of the research
4. Understanding changes to own life with UBI implemented
5. Understanding changes to others lives with UBi implemented
6. Open-ended response to UBI
7. Demographic information

Using the interview phase as a proxy for the survey, questions were able to be tested for comprehension and understanding. The survey mimics but differs slightly from the interview. The main changes from the interview to the survey were increasing the unconditional basic income amount from 150.000isk per month to 200.000isk per month. Most of the interviewees expressed that this was too low to be considered.

The survey had open-ended, closed-ended, and Likert scale questions (see **Tables 3.1 to 3.6**). Open-ended questions allow participants to formulate their answer how they want. In the survey, there was space for participants to type in text to answer the open-ended questions. Open-ended questions are useful when the researcher does not want to influence respondent answers by providing answer choices (Dillman et al. 2014). This gives the respondent the ability to freely answer the question. The limitations of open-ended questions are that they are more likely to be skipped since they require more work to answer. Open-ended questions must be coded or categorized before analysis (Dillman et al. 2014).

Closed-ended questions provide respondents with a list of answer choices that they must choose one or more responses to. Closed-ended questions are used when surveyors want an answer after participants consider or evaluate a specified set of answer choices. Closed-ended questions can also be ordinal questions. Ordinal questions provide an ordered set of answer categories and participants must decide where they fit on the provided spectrum (Dillman et al. 2014).

The survey started with an introduction to the project followed by closed-ended questions around the first theme: respondent introduction and main occupation. **Table 3.1** below shows the questions in more detail.

Table 3.1 Section 1 Survey Questions

#	Question	Type	Answer Choices	Reason
1	Which post code are you currently registered to?	Closed-Ended	List of Icelandic Post Codes	Understand geography of participant
2	Where do you identify as home?	Closed-Ended	Regions of Iceland & Outside of Iceland	Understand participant
3	Where would you like to live in 5 years?	Closed-Ended	Regions of Iceland & Outside of Iceland	Understand participant's desire
4	What is your current work status	Closed-Ended	<ul style="list-style-type: none"> • Self-Employed • Working for Someone Else • Studying • Not working 	Understand participant's work
5	Which sector do you work in? Select all that apply.	Closed-Ended	13 choices of industries	Understand participant's work
6	Do you have other jobs or commitments (such as volunteering) outside of this work?	Closed-Ended	Yes/No	Understand participant's volunteering
7	How many hours per week do you spend on projects/volunteering outside of your main occupation?	Closed-Ended	5 choices	Understand participant's volunteering

The second theme discussed what the participants main occupation was and information about where they lived.

Table 3.2 Section 2 Survey Questions

#	Question	Type	Answer Choices	Reason
To what extent do you agree or disagree with the following statements				
8A	I would move to keep my main occupation	Closed-Ended Ordinal	(1) strongly disagree (2) somewhat disagree (3) neither nor (4) somewhat agree (5) strongly agree	Determine migration intention
8B	I would move to pursue another occupation			Determine migration intention
8C	I could imagine myself living somewhere other than I live now			Determine migration intention
8D	Overall, I am satisfied with where I currently live			Understand satisfaction
8E	Overall, all of my monthly financial needs are met			Understand financial need
To what extent do the following reasons have an impact on where you currently live?				
9A	Occupational reasons	Closed-Ended Ordinal	(1) No impact (2) Some impact (3) Strong impact	Understand reason for living in current place
9B	Family reasons			Understand reason for living in current place
9C	Educational reasons			Understand reason for living in current place
9D	Other personal reasons			Understand reason for living in current place
10	What do you think are the three most pressing issues in your community?	Open-Ended	Open-Ended	Understand issues of the community
11	If at all, what do you think are the main challenges to rural development in Iceland?	Open-Ended	Open-Ended	Understand issues of rural development
To what extent do you agree or disagree with the following statements				
12A	I consider myself an innovative person	Closed-Ended Ordinal	(1) strongly disagree (2) somewhat disagree (3) neither nor (4) somewhat agree (5) strongly agree	Understand innovative potential
12B	I consider myself a creative person			Understand creative potential
12C	I would like to start my own company			Understand desire to start a company before UBI
12D	I would like to start an organization in my community			Understand desire to start an organization before UBI
13	If at all, which projects or ideas would you like to pursue at work or outside of work?	Open-Ended	Open-Ended	Understand ideas of participant before UBI

The third section of the survey introduced universal basic income in terms of the research. Question 14 asked if the participant had heard of unconditional basic income (UBI or borgaralaun). Following the question, the research was introduced:

Unconditional basic income (referred to as UBI henceforth) is a policy that is intended to distribute wealth and eradicate poverty. It has not been fully implemented anywhere in the world.

There have been various experiments throughout the world and some regular distribution payments exist in certain places. Some studies show that recipients of a UBI become happier and/or are more likely to start a business. Opponents of UBI theorize that recipients could exploit the payment and not contribute to society, as well as being too expensive to feasibly fund. Proponents of UBI theorize that it could have the ability to change existing social and economic structures typically characterized by rigid hierarchies of wealth based on race, ethnic, gender, and class divisions

The working definition of UBI for my research is as follows: It is a thought experiment where a set amount of money is distributed monthly to every Icelandic citizen (no age requirement). It would replace most social benefit payments such as housing benefits, unemployment benefits, and/or child allowances. It is intended to help pay for your basic needs (i.e., housing, transportation, and/or food). Payments would be distributed without an end date. The research does not study the feasibility or funding of UBI, but rather what the impacts of UBI could be if it was implemented.

The fourth section discussed possible changes that could occur to the participant's own work and life if a UBI of 200.000 isk per month was implemented. **Table 3.3** below shows the survey questions.

Table 3.3 Section 4 Survey Questions

#	Question	Type	Answer Choices	Reason
To what extent do you agree or disagree with the following statements, envisioning that UBI was implemented.				
15A	I would be able to decrease the workload of my main occupation	Closed-Ended Ordinal	(1) strongly disagree (2) somewhat disagree (3) neither nor (4) somewhat agree (5) strongly agree	Understand changes with UBI
15B	I would consider a different occupation			Understand changes with UBI
15C	I would consider living in the Capital Region of Iceland			Understand migration intentions with UBI
15D	I would consider living in a rural region of Iceland			Understand migration intentions with UBI
15E	I would consider living outside of Iceland			Understand migration intentions with UBI
15F	I would consider starting a business or organization			Understand changes with UBI
15G	I would spend more time on creative project(s)			Understand changes with UBI

The fifth section discussed possible changes that could occur to other's work and life if a UBI of 200.000 isk per month was implemented. **Table 3.4** below shows the survey questions.

Table 3.4 Section 5 Survey Questions

#	Question	Type	Answer Choices	Reason
To what extent do you agree or disagree with the following statements, envisioning that UBI was implemented.				
16A	I would expect others main occupation workload to decrease	Closed-Ended Ordinal	(1) strongly disagree (2) somewhat disagree (3) neither nor (4) somewhat agree (5) strongly agree	Understand changes to others with UBI
16B	I think others would pursue a different occupation			Understand changes to others with UBI
16C	I think people would be more likely to live in the Capital Region of Iceland			Understand migration intentions of others with UBI
16D	I think people would be more likely to live in a rural region of Iceland			Understand migration intentions of others with UBI
16E	I think people would be more likely to live outside of Iceland			Understand migration intentions of others with UBI
16F	I think people would consider starting a business or organization			Understand changes to others with UBI
16G	I think people would spend more time on creative project(s)			Understand changes to others with UBI
17	In general, to what extent do you support the idea of UBI?	Closed-Ended Ordinal	(1) strongly disagree (2) somewhat disagree (3) neither nor (4) somewhat agree (5) strongly agree	Understand support of UBI
18	What do you think about the amount presented (200,000isk per month, equivalent to 2,400,000isk per year)	Closed-Ended Ordinal	(1) Too little (2) Just right (3) Too much (4) I do not support the idea of UBI	Understand if amount of UBI presented is adequate

The sixth section asked open-ended questions so participants could provide more detail about how they felt about UBI and the research. **Table 3.5** below shows the survey questions.

Table 3.5 Section 6 Survey Questions

#	Question	Type	Answer Choices	Reason
19	If at all, what do you think could be the best outcomes of implementing UBI?	Open-Ended	Open-Ended	Determine best outcomes of UBI
20	If at all, what adverse effects do you think UBI could have?	Open-Ended	Open-Ended	Determine adverse outcomes of UBI
21	If at all, what are some projects or ideas you would pursue if UBI was implemented?	Open-Ended	Open-Ended	Determine ideas if UBI with UBI
22	Is there anything else you would like to mention in regards to the research?	Open-Ended	Open-Ended	Accept comments and concerns about the research

The final section covered some demographic information about the participants. **Table 3.6** shows the survey questions.

Table 3.6 Section 7 Survey Questions

#	Question	Type	Answer Choices	Reason
23	What is your age?	Closed-Ended	<ul style="list-style-type: none"> • <18 • 18-25 • 26-35 • 36-50 • 51+ • I do not want to answer 	Demographic information
24	Which gender do you identify with?	Closed-Ended	<ul style="list-style-type: none"> • Male • Female • Non-binary • Other • I do not want to answer 	Demographic information
25	Are you an Icelandic citizen?	Closed-Ended	<ul style="list-style-type: none"> • Yes • No • I do not want to answer 	Demographic information
26	How many people live in your household (including children)?	Closed-Ended	<ul style="list-style-type: none"> • 1 • 2 • 3 • 4 • 5 • 6 or more • I do not want to answer 	Demographic information
27	How many children (younger than 18) do you have?	Closed-Ended	<ul style="list-style-type: none"> • 0 • More than 1 • I do not want to answer 	Demographic information
28	What is your monthly household income before taxes (isk)?	Closed-Ended	<ul style="list-style-type: none"> • <249,999 • 250,000 to 499,999 • 500,000 to 749,999 • 750,000 to 999,999 • 1,000,000+ • I do not want to answer 	Demographic information
29	What is the highest level of education you have completed?	Closed-Ended	<ul style="list-style-type: none"> • Did not complete high school or secondary school • High school or secondary school diploma • Trade school certificate • Bachelor's degree • Master's or PhD degree • I do not want to answer 	Demographic information

3.3.5 Survey Distribution

The target population of the survey is a representative population of all Icelandic residents over the age of 18. To do so, a sampling size needs to be determined. Dillman et al. (2014) provides a formula to calculate the necessary sample size:

$$n = \frac{(N * p * q)}{(N - 1)} * \left(\frac{MoE}{Z}\right)^2 + (p * q)$$

where

- n = completed sample size needed for desired precision level
- N = size of the target population
- p = the proportion being tested
- q = 1 - p
- MoE = desired margin of sampling error
- z = z-score or critical value for desired confidence level

Several variables are needed to use the formula including desired confidence level, desired precision level, and margin of sampling error. It was assumed that survey questions would generate an equal split of responses, i.e., 50/50. The desired confidence level was assumed to be 95% with an estimate of interest falling within 3 percentage points. For 95% confidence, the z-score is 1.96. N is the total population of Iceland above the age of 18, which was 292,624 in 2021 (Statice 2022). The completed sample size is calculated to be 1,063 respondents. However, decreasing the confidence interval to 5 percentage points, yields a sample size of 384 respondents. Therefore, the desired sample size lies somewhere between 384 and 1,063 respondents (Dillman et al. 2014).

The survey was distributed primarily through email, posters, social media (Facebook & Instagram) and word of mouth. Email was the most utilized form of distribution. The list of email addresses focused on the following groups:

- Fostering Innovation Ecosystems in Rural Iceland project
- Innovation clusters
- Regional development agencies
- Political parties

- Interview partners
- Municipalities
- Unions

These groups were identified based on their likely interest in the project as well as finding people who already work with innovation, regional development, and labor issues.

The survey was initially distributed on November 26, 2021, with the first reminder on December 15, 2021, and final reminder on January 5, 2022. The survey closed for responses on January 10, 2022. The survey occurred through the holiday season, but it did not appear to affect the number of responses received. Additional distribution occurred online through social media platforms Facebook and Instagram. Following the schedule of the email distribution, the digital poster was shared on the author's personal Facebook and Instagram on the same dates. On Facebook, a post was created that was shared on each of the dates. It was shared by approximately 4 other Facebook users. On Instagram, a story was shared on the same dates. Because stories only last 24 hours, a story 'highlight' was created with the digital poster so that users could find it if they missed the story.

Posters were distributed to public places throughout the country. Namely they were hung in the two grocery stores in Ísafjörður, as well as the ones in Hólmavík and Buðardalur. A final poster was hung at Háskóli Islands. The posters were removed by the author after the survey closing date. It is unsure how many people were reached from untraceable sources, but approximately 1,000 emails were sent via that method.

3.3.6 Analysis

After the survey was closed on January 10, the raw data was downloaded from Survey Monkey. The data was inspected to see how many participants completed the survey and how many had not. If participants did not complete the survey past question 8, they were removed from the analysis. Survey Monkey combines both the English and Icelandic responses into one file and the Icelandic responses were first translated by Google Translate and reviewed by my supervisor.

In total, 340 responses were analyzed for the results. Various questions had different levels of completions, but skipped questions were removed from the analysis of each question, which made the analysis of some questions based on as few as 198 responses.

Open-ended questions were analyzed and inspected for recurring themes. The answers were categorized into the themes found. Closed-ended answers were also combined in some cases to reduce the number of answer choices or to create a binary of choices. For example, for Question 4, the answer choices “I am retired”, “I am not in the job market for other reasons”, and “I am temporarily out of work (including maternity leave)” were combined into one category for the results called “not working”. The answer choices were nominally labelled to make it easier to work with the data. No weighting was used for the survey questions and the response frequencies of each question are included in **Appendix C**.

Jamovi was utilized for the analysis of the survey. Jamovi is a free and open statistical platform that is intuitive to use and provides the latest developments in statistical methodology (jamovi 2022). In addition to the descriptive statistics of each question, a chi-square (χ^2) test of independence was utilized through jamovi to determine if there was a relationship between certain questions to answer the research questions. The chi-square is a nonparametric statistical test to determine if two more samples are independent or not. The test can only be applied to qualitative data classified into categories or nominally labeled variables. The test should not be used if the expected values of the variables are less than five, which generally restricted the test to large samples. When comparing two or more variables, a probability of the relationship is also calculated. Depending on the level of confidence chosen, it can be determined if the variables are dependent or independent of each other (Zibran 2007). For the research, a confidence interval of 95% was chosen to determine if variables were statistically dependent on each other. If the probability (p) is less than 0.05, the results are statistically dependent on each other and not due to chance (Zibran 2007).

The results are organized into four sections: General Results, Community Development and UBI, UBI Support and UBI Outcomes. Each is described in more detail below.

4 Results

4.1 General Results

The general results offer some insights into some of the questions that provide characteristics and other information for regional development issues. The first question analyzed was if more volunteering occurred in the capital region or non-capital regions. Questions 1 and 6 were compared using a chi-squared test and are statistically significant ($p < 0.005$). The results show that more volunteering occurs outside of the Capital Region (70.5% to 50.0%).

Table 4.1 Volunteering in Capital Region versus Non-Capital Regions

		Do you volunteer?		
Region		No	Yes	Total
Capital Region	Observed	48	48	96
	% within row	50.0%	50.0%	100.0%
Non-Capital Region	Observed	71	170	241
	% within row	29.5%	70.5%	100.0%
Total	Observed	119	218	337
	% within row	35.3%	64.7%	100.0 %

Breaking down the results further by region and volunteering, a chi-square test of independence was performed and found that the results are statistically significant ($p = 0.010$). As shown in **Table 4.2**, the most volunteering occurs in the Western region (80.0%) followed by the Northeast and Northwest regions.

Table 4.2 Current region versus volunteering

Current Region		Do you volunteer?		
		No	Yes	Total
Capital	Observed	48	48	96
	% within row	50.0%	50.0%	100.0%
Southern Peninsula	Observed	11	11	22
	% within row	50.0%	50.0%	100.0%
Western	Observed	8	32	40
	% within row	20.0%	80.0%	100.0%
Westfjords	Observed	24	55	79
	% within row	30.4%	69.6%	100.0%
Northwest	Observed	9	27	36
	% within row	25.0%	75.0%	100.0%
Northeast	Observed	5	15	20
	% within row	25.0%	75.0%	100.0%
East	Observed	6	14	20
	% within row	30.0%	70.0%	100.0%
South	Observed	8	16	24
	% within row	33.3%	66.7%	100.0%
Total	Observed	121	219	340
	% within row	35.6%	64.4%	100.0%

Next, a chi-squared test was conducted between “imagining you could live somewhere else versus if you live in the Capital Region” or “Non-Capital Region”. The test was conducted to determine initial migration intentions. The results are not statistically significant ($p = 0.065$), but quantitatively more people who currently live in the Capital Region could imagine living somewhere other than where they live now (76.0%).

Table 4.3 *Imagine Living Elsewhere in Capital Region versus Non-Capital Regions*

		I could imagine myself living somewhere other than I live now			
Region		Disagree	Neither Nor	Agree	Total
Capital	Observed	17	5	73	96
	% within row	17.7%	5.2%	76.0%	100.0%
Non-Capital	Observed	50	44	145	241
	% within row	20.7%	18.3%	60.2%	100.0%
Total	Observed	67	49	218	337
	% within row	19.9%	14.5%	64.7%	100.0%

Next, moving to keep your main occupation was compared to whether you “live in the Capital Region” or “Non-Capital Region”. The results are not statistically significant ($p = 0.920$) which shows that where you currently live is not an indicator if you would move to keep your main occupation.

Table 4.4 *Move to keep main occupation in Capital Region versus Non-Capital Regions*

		I would move to keep my main occupation			
Region		Disagree	Neither Nor	Agree	Total
Capital	Observed	40	22	33	95
	% within row	42.1%	23.2%	34.7%	100.0 %
Non-Capital	Observed	111	54	75	240
	% within row	46.3%	22.5%	31.3%	100.0%
Total	Observed	151	76	108	335
	% within row	45.1%	22.7%	32.2%	100.0%

Next, it was tested if your “current region” had a relationship with “moving to pursue another occupation”. The results are not statistically significant ($p = 0.850$). Quantitatively, 46.4% of participants would move to pursue another occupation.

Table 4.5 Move to pursue another occupation in Capital Region versus Non-Capital Regions

		I would move to pursue another occupation			
Region		Disagree	Neither Nor	Agree	Total
Capital	Observed	37	19	39	95
	% within row	38.9%	20.0%	41.1%	100.0%
Non-Capital	Observed	87	36	116	239
	% within row	36.4%	15.1%	48.5%	100.0%
Total	Observed	124	55	155	334
	% within row	37.1%	16.5%	46.4%	100.0%

Next, “Capital Region” versus “Non-Capital region” was tested against “if you are satisfied with where you currently live”. The results are not statically significant ($p = 0.057$) but more respondents living outside of the Capital Region are satisfied with where they live (90.9%) than in the Capital Region (78.1%).

Table 4.6 Satisfaction where currently living in Capital Region versus Non-Capital Regions

		Overall, I am satisfied with where I currently live			
Region		Disagree	Neither Nor	Agree	Total
Capital	Observed	14	7	75	96
	% within row	14.6%	7.3%	78.1%	100.0%
Non-Capital	Observed	12	9	219	241
	% within row	5.0%	3.7%	90.9%	100.0%
Total	Observed	26	16	294	337
	% within row	7.7%	4.7%	87.2%	100.0%

Next, the question of “what you think the main challenges to rural development in Iceland” was summarized into ten categories and skipped answers were removed. The question was open ended and received 260 responses. The frequency was then found for each answer

choice and is shown in **Table 4.7**. The highest frequency was Transportation issues (26.9%), followed by Social issues (24.6%), and then Employment (22.7%). Innovation received 2.7% of the responses. Healthcare was the least at 1.9%. Social issues included ideas such as nobody wanting to live in the rural, political issues, and migration to the Capital Region.

Table 4.7 Frequencies of Main Challenges to Rural Development in Iceland

Issue	Count	% of Total
Education	7	2.7%
Taxes	11	4.2%
Transportation	70	26.9%
Services	19	7.3%
Housing	12	4.6%
Employment	59	22.7%
Innovation	7	2.7%
Climate Issues	6	2.3%
Healthcare	5	1.9%
Social issues	64	24.6%
Total	260	

“Region” was then compared independently to whether participants “considered themselves innovative” or “creative”, and whether they wanted to “start a business” or “organization”. A fixed definition was not used for “creative” or “innovate” and respondents were allowed to self-interpret and identify with the words. A chi-squared test of independence was used. **Tables 4.8, 4.9, 4.10, and 4.11** summarize the results.

Table 4.8 Region versus people who consider themselves innovative

Region		Disagree	Neither Nor	Agree	Total
Capital	Observed	13	23	58	96
	% within row	13.5%	24.0%	60.4%	100.0%
Southern Peninsula	Observed	7	8	7	22
	% within row	31.8%	36.4%	31.8%	100.0%
Western	Observed	3	13	24	40
	% within row	7.5%	32.5%	60.0%	100.0%
Westfjords	Observed	9	17	53	79
	% within row	11.4%	21.5%	67.1%	100.0%
Northwest	Observed	5	10	21	36
	% within row	13.9%	27.8%	58.3%	100.0%
Northeast	Observed	3	4	13	20
	% within row	15.0%	20.0%	65.0%	100.0%
East	Observed	2	2	16	20
	% within row	10.0%	10.0%	80.0%	100.0%
South	Observed	3	6	15	24
	% within row	12.5%	25.0%	62.5%	100.0%
Total	Observed	45	83	207	337
	% within row	13.4%	24.6%	61.4%	100.0%

Table 4.9 Region versus people who consider themselves creative

Region		Disagree	Neither Nor	Agree	Total
Capital	Observed	7	16	70	96
	% within row	7.3%	16.7%	72.9%	100.0%
Southern Peninsula	Observed	3	4	14	22
	% within row	13.6%	18.2%	63.6%	100.0%
Western	Observed	4	10	26	40
	% within row	10.0%	25.0%	65.0%	100.0%
Westfjords	Observed	1	16	62	79
	% within row	1.3%	20.3%	78.5%	100.0%
Northwest	Observed	0	8	28	36
	% within row	0.0%	22.2%	77.8%	100.0%
Northeast	Observed	2	3	15	20
	% within row	10.0%	15.0%	75.0%	100.0%
East	Observed	3	2	15	20
	% within row	15.0%	10.0%	75.0%	100.0%
South	Observed	3	4	17	24
	% within row	12.5%	16.7%	70.8%	100.0%
Total	Observed	23	63	247	337
	% within row	6.8%	18.7%	73.3%	100.0%

Table 4.10 Region versus people who want to start their own businesses

Region		Disagree	Neither Nor	Agree	Total
Capital	Observed	19	24	50	96
	% within row	19.8%	25.0%	52.1%	100.0%
Southern Peninsula	Observed	11	6	5	22
	% within row	50.0%	27.3%	22.7%	100.0%
Western	Observed	12	10	18	40
	% within row	30.0%	25.0%	45.0%	100.0%
Westfjords	Observed	22	23	34	79
	% within row	27.8%	29.1%	43.0%	100.0%
Northwest	Observed	11	11	14	36
	% within row	30.6%	30.6%	38.9%	100.0%
Northeast	Observed	5	6	9	20
	% within row	25.0%	30.0%	45.0%	100.0%
East	Observed	4	5	11	20
	% within row	20.0%	25.0%	55.0%	100.0%
South	Observed	4	9	11	24
	% within row	16.7%	37.5%	45.8%	100.0%
Total	Observed	88	94	152	337
	% within row	26.1%	27.9%	45.1%	100.0%

Table 4.11 Region versus people who want to start an organization(s)

Region		Disagree	Neither Nor	Agree	Total
Capital	Observed	23	39	30	96
	% within row	24.0%	40.6%	31.3%	100.0%
Southern Peninsula	Observed	9	7	6	22
	% within row	40.9%	31.8%	27.3%	100.0%
Western	Observed	13	14	13	40
	% within row	32.5%	35.0%	32.5%	100.0%
Westfjords	Observed	16	30	33	79
	% within row	20.3%	38.0%	41.8%	100.0%
Northwest	Observed	10	11	15	36
	% within row	27.8%	30.6%	41.7%	100.0%
Northeast	Observed	8	7	4	20
	% within row	40.0%	35.0%	20.0%	100.0%
East	Observed	6	8	6	20
	% within row	30.0%	40.0%	30.0%	100.0%
South	Observed	5	12	7	24
	% within row	20.8%	50.0%	29.2%	100.0%
Total	Observed	90	128	114	337
	% within row	26.7%	38.0%	33.8%	100.0%

The results of region versus innovative are not statically significant and are shown in **Table 4.8** ($p = 0.569$). The Eastern region had the highest percentage of individuals who considered themselves innovative (80.0%). The next highest region was the Westfjords (67.1%) followed by the Northeast region (65%). The Capital region was the sixth highest at 60.4% considering themselves innovative. The Southern Peninsula had the least at 31.8% of participants.

The results of region versus considering yourself creative (**Table 4.9**) are not statistically significant ($p = 0.490$) and followed a similar hierarchy as innovative people. The Westfjords region was the highest (78.5%), then the Northwest region (77.8%), and the Northeast and East region both had 75.0%. The Capital region was the fifth highest with 72.9% of respondents considering themselves creative.

The results of region versus wanting to start your own business (**Table 4.10**) are not statistically significant ($p = 0.629$). The highest percentage was in the Eastern region (55.0%)

followed by the Capital region (52.1%), and then the Southern region (45.8%). The Southern Peninsula had the least at 22.7%.

The results of region versus wanting to start an organization (**Table 4.11**) are not statistically significant ($p = 0.433$). The highest percentage was found in the Westfjords (41.8%), followed by the Northwest (41.7%), and then the Western region (32.5%).

The results of these four tests not being statistically significant show that these people are not distributed in one certain region of the country. Rather, they are dispersed throughout the country, and some exist in each region.

Diving deeper into where certain types of people may be throughout the country, “region” was compared to “work status”. Work status was organized into four groups: self-employed, working for someone else, studying, and not working. A chi-squared test of independence shows that the results are statistically significant and are shown in **Table 4.12** ($p = 0.002$). Most self-employed live in the capital region and most students live in the Westfjords. This is discussed more in the limitations section. Outside of the Capital, Western, and Westfjords region, there are very few self-employed people. Most people in each region work for someone else.

Table 4.12 Region versus work status

Region		Work Status				
		Self-Employed	Work for Someone Else	Study	Not Working	Total
Capital	Observed	13	72	2	9	96
	% within row	13.5%	75.0%	2.1%	9.4%	100.0%
Southern Peninsula	Observed	2	19	0	1	22
	% within row	9.1%	86.4%	0.0%	4.5%	100.0%
Western	Observed	5	32	0	3	40
	% within row	12.5%	80.0%	0.0%	7.5%	100.0%
Westfjords	Observed	13	47	16	3	79
	% within row	16.5%	59.5%	20.3%	3.8%	100.0%
Northwest	Observed	1	32	2	1	36
	% within row	2.8%	88.9%	5.6%	2.8%	100.0%
Northeast	Observed	2	16	0	2	20
	% within row	10.0%	80.0%	0.0%	10.0%	100.0%
East	Observed	1	16	1	2	20
	% within row	5.0%	80.0%	5.0%	10.0%	100.0%
South	Observed	3	20	1	0	24
	% within row	12.5%	83.3%	4.2%	0.0%	100.0%
Total	Observed	40	254	22	21	337
	% within row	11.9%	75.4%	6.5%	6.2%	100.0%

Migration intentions were also investigated in the General Results. A chi-squared test of independence was performed between which “region you currently live in” and which “region you identify as home”. The results are statistically significant and are shown in **Table 4.13** ($p < 0.001$). The majority of respondents live in the region that they identify as home, with percentages as high as 100.0% for the Northeast and Southern regions and as low as 75.0% for the Eastern region. The Capital region had 94.8% of respondents identifying the region as home.

Table 4.13 Current region versus where you identify as home

Current region		Identifying current region as home
Capital	Observed	91
	% of responses	94.8%
Southern Peninsula	Observed	20
	% of responses	90.9%
Western	Observed	38
	% of responses	95.0%
Westfjords	Observed	69
	% of responses	87.3%
Northwest	Observed	36
	% of responses	100.0%
Northeast	Observed	20
	% of responses	100.0%
East	Observed	15
	% of responses	75.0%
South	Observed	24
	% of responses	100.0%

Next, a chi-squared test of independence was performed between “where you want to live in five years” versus “region you currently live”. The results are statistically significant and are shown in **Table 4.14** ($p < 0.001$). The percentages decreased from **Table 4.13** which shows that people want to live in another region or outside of Iceland in the next five years. The Capital region had 70.8% of respondents wanting to still be in the Capital region as compared to 94.8% from **Table 4.13**. The Southern region had the largest percentage of people who live in the region and want to live there in 5 years as well at 95.8%. Compared to **Table 4.13**, this percentage decreased from 100.0%.

Table 4.14 Current region versus where you want to live in 5 years

Current Region		Where would you like to live in 5 years? - Same Region
Capital	Observed	68
	% of responses	70.8%
Southern Peninsula	Observed	18
	% of responses	81.8%
Western	Observed	34
	% of responses	85.0%
Westfjords	Observed	53
	% of responses	67.9%
Northwest	Observed	31
	% of responses	86.1%
Northeast	Observed	14
	% of responses	73.7%
East	Observed	11
	% of responses	55.0%
South	Observed	23
	% of responses	95.8%

Lastly, a chi-squared test was performed between whether “people were satisfied where they live” based on “region they currently live in”. The results are statistically significant ($p = 0.036$) and are show in **Table 4.15**. The highest satisfaction is in the Southern region (95.7%) followed by the Western and Northeast regions (95.0%). The Capital region was least satisfied at 78.1%.

Table 4.15 Current region versus satisfaction with where you live

Current Region		Overall, I am satisfied with where I live			
		Disagree	Neither Nor	Agree	Total
Capital	Observed	14	7	75	96
	% within row	14.6%	7.3%	78.1%	100.0%
Southern Peninsula	Observed	4	0	18	22
	% within row	18.2%	0.0%	81.8%	100.0%
Western	Observed	1	1	38	40
	% within row	2.5%	2.5%	95.0%	100.0%
Westfjords	Observed	5	2	72	79
	% within row	6.3%	2.5%	91.1%	100.0%
Northwest	Observed	0	3	33	36
	% within row	0.0%	8.3%	91.7%	100.0%
Northeast	Observed	0	1	19	20
	% within row	0.0%	5.0%	95.0%	100.0%
East	Observed	1	2	17	20
	% within row	5.0%	10.0%	85.0%	100.0%
South	Observed	1	0	22	23
	% within row	4.3%	0.0%	95.7%	100.0%
Total	Observed	26	16	297	339
	% within row	7.7%	4.7%	87.6%	100.0%

4.2 Community Development and UBI

The Community Development and UBI results section shows was the impacts of UBI could be on community from migration intentions to starting your own business or organization. It builds on the changes that would occur with the implementation of UBI.

First, the frequency of if respondents had “heard of UBI” was analyzed. As shown in **Table 4.16**, 19.2% were unsure or had not heard about UBI before taking the survey. 80.8% respondents had heard of UBI before taking the survey.

Table 4.16 Frequency of Have you heard of UBI?

Levels	Counts	% of Total	Cumulative %
No	50	15.0%	15.0%
Yes	270	80.8%	95.8%
Not Sure	14	4.2%	100.0%
Total	334		

The survey followed questions that could predict impacts of UBI. The next one analyzed was whether respondents “thought that they could reduce their workload if UBI was implemented”. This was tested against “work status”. The results are not statistically significant ($p = 0.549$) and are shown in **Table 4.17**. Self-employed workers and students could decrease their workload but there is no evidence that people who are working for someone else or not working would be able to decrease workload. This may be an indication of people not becoming lazy with the implementation of UBI.

Table 4.17 Work status versus ability to decrease workload with UBI

Work Status		I would be able to decrease workload with UBI?			
		Disagree	Neither Nor	Agree	Total
Self Employed	Observed	11	4	23	38
	% within row	28.9%	10.5%	60.5%	100.0%
Working for someone else	Observed	95	47	100	242
	% within row	39.3%	19.4%	41.3%	100.0%
Studying	Observed	6	3	12	21
	% within row	28.6%	14.3%	57.1%	100.0%
Total	Observed	112	54	135	301
	% within row	37.2%	17.9%	44.9%	100.0%

Migration intentions were then tested by asking whether people “thought that they would move to the Capital region with the implementation of UBI”. **Table 4.18** shows the frequency of respondents who would consider living in the Capital region with UBI. As shown, 12.5% of respondents agreed that they would consider living in the Capital region.

Table 4.18 Frequency of considering living in the Capital Region with UBI

Levels	Counts	% of Total	Cumulative %
Disagree	206	64.6%	64.6%
Neither Nor	73	22.9%	87.5%
Agree	40	12.5%	100.0 %
Total	319		

Diving deeper, the same question of whether you would “consider living in the Capital Region” was compared to whether you are “currently living in the Capital region” or “Non-Capital region”. A chi-squared test of independence found that the results are statistically significant ($p < 0.001$) and the results are shown in **Table 4.19**. The capital region is undecided whether they would make this move. Non-capital regions show a strong desire to not move to the Capital Region at 82.1% disagreeing with the question.

Table 4.19 Capital/Non-Capital versus living in the Capital Region with UBI

Current Region		I would consider living in the Capital Region with UBI			
		Disagree	Neither Nor	Agree	Total
Capital	Observed	15	49	23	87
	% within row	17.2%	56.3%	26.4%	100.0%
Non-Capital	Observed	188	24	17	229
	% within row	82.1%	10.5%	7.4%	100.0%
Total	Observed	206	73	40	319
	% within row	64.6%	22.9%	12.5%	100.0%

Further, the question was analyzed by “current region”. A chi-squared test of independence found that the results are statistically significant ($p < 0.001$) and are shown in **Table 4.20**. The results show that no region displays a strong desire to move to the capital area with the implementation of UBI.

Table 4.20 Current region versus living in the Capital Region with UBI

Current Region		I would consider moving to the Capital Region with UBI			
		Disagree	Neither Nor	Agree	Total
Capital	Observed	15	49	23	87
	% within row	17.2%	56.3%	26.4%	100.0%
Southern Peninsula	Observed	18	1	2	21
	% within row	85.7%	4.8%	9.5%	100.0%
Western	Observed	32	4	2	38
	% within row	84.2%	10.5%	5.3%	100.0%
Westfjords	Observed	59	11	5	75
	% within row	78.7%	14.7%	6.7%	100.0%
Northwest	Observed	30	4	1	35
	% within row	85.7%	11.4%	2.9%	100.0%
Northeast	Observed	15	2	2	19
	% within row	78.9%	10.5%	10.5%	100.0%
East	Observed	15	1	2	18
	% within row	83.3%	5.6%	11.1%	100.0%
South	Observed	19	1	3	23
	% within row	82.6%	4.3%	13.0%	100.0%
Total	Observed	203	73	40	316
	% within row	64.2%	23.1%	12.7%	100.0%

Next, the same question was asked but if participants would “consider living in a rural region of Iceland with the implementation of UBI”. **Table 4.21** shows the frequencies of participants who would consider living in a rural region of Iceland with the implementation of UBI. As shown, 56.7% of respondents agreed with the statement.

Table 4.21 Frequency of considering living in a rural region with UBI

Levels	Counts	% of Total	Cumulative %
Disagree	49	15.4%	15.4%
Neither Nor	89	27.9%	43.3%
Agree	181	56.7%	100.0%
Total	319		

Again, the question was analyzed based on which “region you currently live in (capital/non-capital)”. A chi-squared test of independence shows that the results are statistically

significant ($p = 0.004$) and are displayed in **Table 4.22**. Participants living in non-capital regions show a strong desire (61.2%) of living in the rural region with the implementation of UBI. The capital region also shows a higher likelihood of living in a rural region (41.6%) than the previous comparison to the Capital region (26.4%).

Table 4.22 Capital/Non-Capital versus living in a rural region with UBI

Current Region		I would consider moving to a Rural Region with UBI			
		Disagree	Neither Nor	Agree	Total
Capital	Observed	23	25	41	89
	% within row	25.8%	28.1%	46.1%	100.0%
Non-Capital	Observed	24	64	139	227
	% within row	10.6%	28.2%	61.2%	100.0%
Total	Observed	47	89	180	316
	% within row	14.9%	28.2%	57.0%	100.0%

Breaking this down further into each “region” a chi-squared test of independence shows that the results are statistically significant ($p = 0.002$) and are shown in **Table 4.23**. The results show that overall, 57.0% of respondents agreed that they would consider living in a rural region. The rural regions show a high likelihood of continuing to live in the rural with percentages over 50.0% in the Western, Westfjords, Northwest, Northeast, Eastern, and Southern regions. The Westfjords region had the highest percentage of living in the rural (70.7%), further confirming their desire to live in the rural. 46.1% of the Capital region agreed that they would consider living in rural area of Iceland with the implementation of UBI.

Table 4.23 Current region versus living in a rural region with UBI

Current Region		I would consider moving to a Rural Region with UBI			
		Disagree	Neither Nor	Agree	Total
Capital	Observed	23	25	41	89
	% within row	25.8%	28.1%	46.1%	100.0%
Southern Peninsula	Observed	6	12	3	21
	% within row	28.6%	57.1%	14.3%	100.0%
Western	Observed	5	11	22	38
	% within row	13.2%	28.9%	57.9%	100.0%
Westfjords	Observed	6	16	53	75
	% within row	8.0%	21.3%	70.7%	100.0%
Northwest	Observed	1	10	23	34
	% within row	2.9%	29.4%	67.6%	100.0%
Northeast	Observed	0	5	13	18
	% within row	0.0%	27.8%	72.2%	100.0%
East	Observed	4	3	11	18
	% within row	22.2%	16.7%	61.1%	100.0%
South	Observed	2	7	14	23
	% within row	8.7%	30.4%	60.9%	100.0%
Total	Observed	47	89	180	316
	% within row	14.9%	28.2%	57.0%	100.0%

Next, “current region” was compared with the “desire to start a business or organization with the implementation of UBI” ($p = 0.428$). The correlation is not statically significant which shows these people are scattered throughout the country. People who want to start businesses or organizations are not in one particular region, they are in each region in different proportions. The Westfjords showed the highest consideration (56.8%) for starting a business with the Southern Peninsula showed the least (19.0%).

Table 4.24 Current region versus starting a business/organization with UBI

Current Region		I would consider starting a business or organization			
		Disagree	Neither Nor	Agree	Total
Capital	Observed	24	23	41	88
	% within row	27.3%	26.1%	46.6%	100.0%
Southern Peninsula	Observed	11	6	4	21
	% within row	52.4%	28.6%	19.0%	100.0%
Western	Observed	12	12	13	37
	% within row	32.4%	32.4%	35.1%	100.0%
Westfjords	Observed	19	13	42	74
	% within row	25.7%	17.6%	56.8%	100.0%
Northwest	Observed	11	8	16	35
	% within row	31.4%	22.9%	45.7%	100.0%
Northeast	Observed	7	6	6	19
	% within row	36.8%	31.6%	31.6%	100.0%
East	Observed	6	5	7	18
	% within row	33.3%	27.8%	38.9%	100.0%
South	Observed	4	10	9	23
	% within row	17.4%	43.5%	39.1%	100.0%
Total	Observed	94	83	138	315
	% within row	29.8%	26.3%	43.8%	100.0%

“Current region” was then compared with whether people would “spend more time on creative projects with the implementation of UBI”. A chi-squared test of independence shows that the results are statistically significant ($p = 0.007$) and are shown in **Table 4.25**. Most regions agreed that they would be able to spend more time on creative projects with the implementation of UBI. The Westfjords had the highest percentage (78.7%) followed by the Capital region (65.2%). The Southern Peninsula region had the least at 19.0%.

Table 4.25 Current region versus spending more time on creative projects with UBI

Current Region		I would spend more time on creative project(s)			
		Disagree	Neither Nor	Agree	Total
Capital	Observed	14	17	58	89
	% within row	15.7%	19.1%	65.2%	100.0%
Southern Peninsula	Observed	12	5	4	21
	% within row	57.1%	23.8%	19.0%	100.0%
Western	Observed	10	7	21	38
	% within row	26.3%	18.4%	55.3%	100.0%
Westfjords	Observed	5	11	59	75
	% within row	6.7%	14.7%	78.7%	100.0%
Northwest	Observed	8	10	17	35
	% within row	22.9%	28.6%	48.6%	100.0%
Northeast	Observed	4	3	12	19
	% within row	21.1%	15.8%	63.2%	100.0%
East	Observed	4	5	9	18
	% within row	22.2%	27.8%	50.0%	100.0%
South	Observed	5	7	10	22
	% within row	22.7%	31.8%	45.5%	100.0%
Total	Observed	63	66	191	320
	% within row	19.7%	20.6%	59.7%	100.0%

The amount of UBI presented in the study was 200.000 isk per month or 2.400.000 isk per year. As shown in Table 4.26, 48.7% of respondents felt that the amount was just right.

Table 4.26 Frequency of Support of UBI Amount

Levels	Counts	% of Total
Too Little	76	24.2%
Just Right	153	48.7%
Too Much	15	4.8%
Do Not Support	70	22.3%
Total	314	

4.3 UBI Support

The UBI support section of the results aim to categorize characteristics of people who support or do not support the implementation of UBI.

First, “current region” was compared with “support of UBI”. A chi-squared test of independence found that the results are statistically significant ($p = 0.001$) and are shown in **Table 4.27**. The highest support is in the Capital region (70.1%), followed by the Westfjords (64.9%). The Southern Peninsula region had the least support (28.6%).

Table 4.27 Current region versus UBI support

Current Region		Do you support the idea of UBI?			
		Do Not Support	Neither Nor	Support	Total
Capital	Observed	17	9	61	87
	% within row	19.5%	10.3%	70.1%	100.0%
Southern Peninsula	Observed	10	5	6	21
	% within row	47.6%	23.8%	28.6%	100.0%
Western	Observed	14	13	11	38
	% within row	36.8%	34.2%	28.9%	100.0%
Westfjords	Observed	9	17	48	74
	% within row	12.2%	23.0%	64.9%	100.0%
Northwest	Observed	14	9	13	36
	% within row	38.9%	25.0%	36.1%	100.0%
Northeast	Observed	6	4	9	19
	% within row	31.6%	21.1%	47.4%	100.0%
East	Observed	7	3	8	18
	% within row	38.9%	16.7%	44.4%	100.0%
South	Observed	4	9	10	23
	% within row	17.4%	39.1%	43.5%	100.0%
Total	Observed	81	69	166	316
	% within row	25.6%	21.8%	52.5%	100.0%

Next, “work status” was compared with “support of UBI”. The results are statistically significant ($p = 0.021$) and are shown in **Table 4.28**. Self-employed (67.6%) and students (85.7%) are the most supportive and those who work for someone else had the least support (46.3%). Those not working were 63.2% supportive of the idea of UBI.

Table 4.28 Work status versus UBI support

Work Status		Do you support the idea of UBI?			
		Do Not Support	Neither Nor	Support	Total
Self-Employed	Observed	4	8	25	37
	% within row	10.8%	21.6%	67.6%	100.0%
Work for someone else	Observed	72	58	112	242
	% within row	29.8%	24.0%	46.3%	100.0%
Studying	Observed	2	1	18	21
	% within row	9.5%	4.8%	85.7%	100.0%
Not working	Observed	4	3	12	19
	% within row	21.1%	15.8%	63.2%	100.0%
Total	Observed	82	70	167	319
	% within row	25.7%	21.9%	52.4%	100.0%

Next, people who “consider themselves innovative” was compared with “support of UBI” ($p < 0.001$). The correlation is statically significant. People who consider themselves innovative showed the highest support of UBI (60.4%).

Table 4.29 Innovative versus UBI support

Consider Innovative		Do you support the idea of UBI?			
		Do Not Support	Neither Nor	Support	Total
Disagree	Observed	11	10	21	42
	% within row	26.2%	23.8%	50.0%	100.0%
Neither Nor	Observed	28	25	27	80
	% within row	35.0%	31.3%	33.8%	100.0%
Agree	Observed	43	35	119	197
	% within row	21.8%	17.8%	60.4%	100.0%
Total	Observed	82	70	167	319
	% within row	25.7%	21.9%	52.4%	100.0%

Similarly, people who “consider themselves creative” was compared with “support of UBI”. The correlation is statically significant ($p < 0.001$) and the results are shown in **Table 4.30**. People who consider themselves creative showed the highest support of UBI (57.6%).

Table 4.30 Creative versus UBI support

Consider Creative		Do you support the idea of UBI?			
		Do Not Support	Neither Nor	Support	Total
Disagree	Observed	7	6	7	20
	% within row	35.0%	30.0%	35.0%	100.0%
Neither Nor	Observed	20	17	23	60
	% within row	33.3%	28.3%	38.3%	100.0%
Agree	Observed	54	47	137	238
	% within row	22.7%	19.7%	57.6%	100.0%
Total	Observed	81	70	167	318
	% within row	25.5%	22.0%	52.5%	100.0%

Next, people who “want to start companies” was compared with “support of UBI”. The correlation is statically significant ($p < 0.001$) and the results are shown in **Table 4.31**. People who want to start companies showed the highest support of UBI (59.9%).

Table 4.31 Starting a company versus UBI support

Start company		Do you support the idea of UBI?			
		Do Not Support	Neither Nor	Support	Total
Disagree	Observed	31	19	34	84
	% within row	36.9%	22.6%	40.5%	100.0%
Neither Nor	Observed	21	23	48	92
	% within row	22.8%	25.0%	52.2%	100.0%
Agree	Observed	29	28	85	142
	% within row	20.4%	19.7%	59.9%	100.0%
Total	Observed	81	70	167	318
	% within row	25.5%	22.0%	52.5%	100.0%

Similarly, people who want to “start organizations” was compared with “support of UBI”. The correlation is statically significant ($p = 0.002$) and the results are shown in **Table 4.32**. People who want to start organizations showed the highest support of UBI (66.0%).

Table 4.32 Starting an organization versus UBI support

Start organization		Do you support the idea of UBI?			
		Do Not Support	Neither Nor	Support	Total
Disagree	Observed	27	23	37	87
	% within row	31.0%	26.4%	42.5%	100.0%
Neither Nor	Observed	33	31	59	123
	% within row	26.8%	25.2%	48.0%	100.0%
Agree	Observed	20	16	70	106
	% within row	18.9%	15.1%	66.0%	100.0%
Total	Observed	80	70	166	316
	% within row	25.3%	22.2%	52.5%	100.0%

Another indicator of support that was tested was “age”. The correlation is statically significant ($p < 0.001$), and the results are shown in **Table 4.33**. It was found that the greatest support came from those between the ages of 18 and 25 (85.7%) with support decreasing as age increased.

Table 4.33 Age versus UBI support

Age		Do you support the idea of UBI?			
		Do Not Support	Neither Nor	Support	Total
18 to 25	Observed	0	2	12	14
	% within row	0.0%	14.3%	85.7%	100.0%
26 to 35	Observed	8	11	30	49
	% within row	16.3%	22.4%	61.2%	100.0%
36 to 50	Observed	28	27	63	118
	% within row	23.7%	22.9%	53.4%	100.0%
Over 51	Observed	16	10	18	44
	% within row	36.4%	22.7%	40.9%	100.0%
Total	Observed	52	50	123	225
	% within row	23.1%	22.2%	54.7%	100.0%

“Gender” was also compared with “UBI support” and the results were found to be statistically significant ($p < 0.001$) and shown in **Table 4.34**. It was found women are the most supportive of UBI (54.4%).

Table 4.34 Gender versus UBI support

Gender		Do you support the idea of UBI?			
		Do Not Support	Neither Nor	Support	Total
Male	Observed	42	27	67	136
	% within row	30.9%	19.9%	49.3%	100.0%
Female	Observed	35	42	92	169
	% within row	20.7%	24.9%	54.4%	100.0%
Non-Binary	Observed	0	0	1	1
	% within row	0.0%	0.0%	100.0%	100.0%
Total	Observed	77	69	160	306
	% within row	25.2%	22.5%	52.3%	100.0%

Next, “number of children” was compared with “support of UBI” and was found to be statistically significant ($p < 0.001$). The results are shown in **Table 4.35** and participants that did not have children were most supportive of UBI (59.8%).

Table 4.35 Number of children versus UBI support

Number of Children		Do you support the idea of UBI?			
		Do Not Support	Neither Nor	Support	Total
Zero	Observed	43	29	107	179
	% within row	24.0%	16.2%	59.8%	100.0%
1 or more	Observed	37	40	58	135
	% within row	27.4%	29.6%	43.0%	100.0%
Total	Observed	80	69	165	314
	% within row	25.5%	22.0%	52.5%	100.0%

“Having your financial needs met” was compared with “support of UBI” to determine if it was an indicator of support. The results are not statistically significant ($p = 0.268$) and are shown in **Table 4.36**. Financial need is not an indicator of support of UBI. Quantitatively, those whose financial needs were “neither nor” were most supportive of UBI (66.7%), followed by those whose financial needs were not met (63.8%). Those whose financial needs were met were least supportive of UBI (52.5%).

Table 4.36 Financial need versus UBI support

Financial needs met		Do you support the idea of UBI?			
		Do Not Support	Neither Nor	Support	Total
Disagree	Observed	7	10	30	47
	% within row	14.9%	21.3%	63.8%	100.0%
Neither Nor	Observed	5	3	16	24
	% within row	20.8%	12.5%	66.7%	100.0%
Agree	Observed	69	56	120	245
	% within row	28.2%	22.9%	49.0%	100.0%
Total	Observed	81	69	166	316
	% within row	25.6%	21.8%	52.5%	100.0%

However, when comparing “income” versus “support of UBI”, the results were found to be statistically significant ($p < 0.001$) and are shown in **Table 4.37**. It was found that participants that make less than 499,999 isk per month are most supportive of UBI (76.1%).

Table 4.37 Income versus UBI support

Income (isk)		Do you support the idea of UBI?			
		Do Not Support	Neither Nor	Support	Total
Less than 499,999	Observed	6	10	51	67
	% within row	9.0%	14.9%	76.1%	100.0%
500,000 to 749,999	Observed	16	18	34	68
	% within row	23.5%	26.5%	50.0%	100.0%
749,999 to 1 mil	Observed	21	25	40	86
	% within row	24.4%	29.1%	46.5%	100.0%
Greater than 1 mil	Observed	28	11	26	65
	% within row	43.1%	16.9%	40.0%	100.0%
Total	Observed	71	64	151	286
	% within row	24.8%	22.4%	52.8%	100.0%

“Education” was tested to see if it was an indicator of “UBI support”. The results are statistically significant ($p < 0.001$) and are shown in **Table 4.38**. It was found UBI support

decreases as education increases. More educated participants are least likely to support UBI (43.8%).

Table 4.38 Education versus UBI support

Education		Do you support the idea of UBI?			
		Do Not Support	Neither Nor	Support	Total
Trade school or below	Observed	7	5	19	31
	% within row	22.6%	16.1%	61.3%	100.0%
Bachelor's degree or equivalent	Observed	33	32	86	151
	% within row	21.9%	21.2%	57.0%	100.0%
Master's degree, PhD or equivalent	Observed	37	31	53	121
	% within row	30.6%	25.6%	43.8%	100.0%
Total	Observed	77	68	158	303
	% within row	25.4%	22.4%	52.1%	100.0%

4.4 UBI Outcomes

The UBI outcomes sections summarizes what respondents thought would be the best and adverse outcomes of the implementation of UBI. Answers were organized into eight categories. **Table 4.39** shows the frequencies of the “best outcomes of UBI”. As shown equality as the leading best outcome at 46.0%. The next leading answer was innovation at 22.0%.

Table 4.39 Frequencies of Best Outcomes of UBI

Outcomes	Counts	% of Total
Equality	92	46.0%
Bureaucratic Costs	1	0.5%
Employment	23	11.5%
Innovation	44	22.0%
Community Development	19	9.5%
Multiple Answers	7	3.5%
Do Not Support UBI	12	6.0%
None	2	1.0%
Total	200	

“Adverse outcomes” were organized into ten different categories and **Table 4.40** shows the frequencies of results. As shown, the leading adverse outcomes were laziness at 26.8% followed closely by bureaucratic costs at 26.4%.

Table 4.40 Frequencies of Adverse Outcomes of UBI

Outcomes	Counts	% of Total
Equality	25	10.8%
Bureaucratic Costs	61	26.4%
Employment	48	20.8%
Innovation	1	0.4%
Community Development	4	1.7%
Migration	3	1.3%
Laziness	62	26.8%
Multiple Answers	6	2.6%
Do Not Support UBI	2	0.9%
None	19	8.2%
Total	231	

5 Discussion

5.1 Limitations

Several limitations should be discussed regarding the research. The first limitation found was that a large percentage of participants from the Westfjords region were found to be students (20.3%). This bias is likely due to the fact that the University Centre of the Westfjords is in the region and students of the cohort were more likely to complete the survey. This bias of students does not necessarily affect the research, but it should be considered when interpreting the data regarding the Westfjords. As shown in **Table 3.34**, 85.7% of participants who were students support the idea of UBI. This is the highest support of any work status. This could result in the Westfjords displaying more support because of the student bias. However, this large percentage of students could be used to the advantage of the research by specifically analyzing the students' perspective more closely than presented here in the research.

Another limitation was found regarding Question 5: Which sector do you work in? There were 14 different answer choices for the question, and they were all intended to be their own individual industries. The choices were too broad and could not be consolidated into meaningful data. Participants were also allowed to choose multiple answer choices, which was not able to be analyzed. They were also allowed to write-in their own sector, which further complicated the consolidation of results. Public service was not provided as an answer choice, which was an oversight of the research. Many participants who worked in the Public Service sector wrote-in their service. Overall, question 5 was not used for any analysis due to it being too broad.

Question 8E was not further analyzed other than shown in **Table 3.42**. While it was included in the survey with the hypothesis that it would be an indicator of UBI support, only 15.1% of participants disagreed that their monthly financial needs were met. The question was not used for further analysis due the low respondents in this category.

5.2 Covid-19 Effects

The Covid-19 pandemic has had many impacts on the way the world operates. Namely, healthcare centers are under considerable pressure due the increase in those that need to be treated, schools and offices have closed which has caused a change in the way we work, and

both internal and external migration has been affected (Nordregio 2022). The Nordic countries did not collaborate in developing policy responses to Covid-19 which created challenges for cross-border commuters and increased nationalist sentiment (Nordregio 2022).

The labor market has been impacted by Covid-19 in two ways: (1) employees were not able to go their workplaces due to lockdowns; and (2) many sectors had to reduce their activities due to a drastic change in demand and supply chain disruptions (Nordregio 2022). Because of these factors of uncertainty, unemployment rose quickly at the beginning of the pandemic (Nordregio 2022). Those that were most affected were young people, women, people with low education levels, immigrants, and atypical/seasonal/contract workers (Nordregio 2022). In Iceland, the arts sector was hit the third hardest of any sector, with the change in employment from 2019 to 2020 in Iceland decreasing by 14.2% (Nordregio 2022). Since the tourism, retail, and culture sector employs many atypical workers, the true impact of the pandemic is even harder to estimate (Nordregio 2022).

In terms of migration and mobility, Covid-19 implemented migration restrictions such as not being able to travel outside one country, entry requirements, mandatory quarantines upon arrival, and restrictions on movement between regions within countries (Nordregio 2022). Most of these policies went against EU and Nordic norms which guarantee free movement between them (Nordregio 2022). In the Nordic countries between 2019 and 2020, immigration decreased by 21% and emigration by 9% (Nordregio 2022). Iceland experienced a decrease in immigration by 1,777 people in 2020 which can be attributed to a decline in immigration from traditional sources of labor like the Czech Republic, Lithuania, Poland, and Serbia (Nordregio 2022). Emigration from Iceland increased by 944 persons in 2022 in which most people went to Croatia, Lithuania, Latvia, Poland, Portugal, and Romania (Nordregio 2022). Immigration and emigration to Iceland during the pandemic follows labor market mobility. Due to the impact of jobs and the way people work, it seems that some people decided to not come to Iceland to work and others moved out of Iceland to seek labor somewhere else.

Internally, Nordregio's research (2022) shows that there may be an increasing trend towards urban-to-rural counter migration because of the pandemic. In Iceland, the municipalities of Ásahreppur (Southern region), Tálknafjarðarhreppur (Westfjords region), and

Fljótshreppur (Eastern region) have shown a strong inflow of internal migration from 2019 to 2020 (Nordregio 2022). It is unsure how the pandemic will continue to impact migration in the Nordic countries (Nordregio 2022).

In terms of the research, the Covid-19 pandemic was not specifically addressed, but these trends should be understood when interpreting the research. Changes and attitudes towards migration may be due to the pandemic and not solely to the introduction of UBI. The pandemic has also changed the way the world works and people may see it as an opportunity to work differently than they did in the past. In some ways, the pandemic has opened the door to more work-from-home potential which could alter long-term urbanization patterns (Nordregio 2022). It will take some time to fully understand the impacts of the pandemic on migration patterns (Nordregio 2022).

5.3 General Results

The research aimed at understanding characteristics of participants before and after the idea of UBI. One of the before questions was to understand migration intentions. **Table 4.3** shows the results of a chi-squared test of independence between region and imagining you could live somewhere other than where you currently live. The results show that 76.0% of people living in the Capital region could imagine living elsewhere. 60.2% of non-capital participants agreed they could imagine living somewhere else. This initial comparison is the first indicator that there is a difference between people living in the Capital region and non-capital region. Additionally, 94.8% of respondents identified the Capital region as home which shows that even though respondents identify it as home, they are open to the idea of living elsewhere.

This idea was further explored in **Table 4.14** when current region was compared against Question 3 where participants would like to live in five years. The comparison resulted in 95.8% of people in the Southern region wanting to still live in the Southern region in five years. Comparatively, 70.8% of participants from the Capital region want to live in the Capital region in five years. For the Capital region, the next leading answers were outside of Iceland (7.3%), followed by the Southern (6.3%), Northeast (5.2%), Westfjords (4.2%), and Western regions (4.2%). For the Westfjords region, 24.4% of participants responded with outside of Iceland, which could be because of the student bias. For the non-Capital regions, the Northeast had the highest migration intention to the Capital region with 15.8% of

respondents saying they would like to live in the Capital region. This was followed by the Western (10.0%), Eastern (10.0%), Southern Peninsula (9.1%), Northwest (8.3%), Westfjords (5.1%), and Southern regions (0.0%). These results show that there is generally equal migration intentions to the Capital region from non-Capital regions, but participants who live in the Capital region do show a larger migration intention as a whole by having the third lowest percentage of participants who want to live in the region in five years. This is counter of Ravenstein's Law 6 which states that natives of towns are less migratory than those of the rural parts of the country (Greenwood & Hunt 2003). This shows that people who live in the Capital area could be more migratory than those who live in non-Capital regions.

Factors of migration intentions were explored between moving to keep your main occupation and moving to pursue another occupation and satisfaction of where you currently live. It was found that 34.7% of Capital region respondents and 31.3% of non-capital region respondents would move to keep their main occupation. The test is not statistically significant which shows that this cannot be predicted by region. Additionally, 41.1% of capital region respondents and 48.5% of non-capital region respondents would move to pursue another occupation. The test is not statistically significant which shows that this cannot be predicted by region. These percentages show that people would consider moving to another place to pursue another occupation. This does not necessarily say where to, but it does show that the population would consider moving if the right job opportunity was available. The fact that fewer non-capital region respondents would move to keep their main occupation as compared to capital region respondents may show a desire for another main occupation. This is confirmed as more non-capital region respondents said they would be willing to move to pursue another occupation. The last question of this discussion asked if respondents were satisfied with where they currently live. 78.1% of capital region respondents and 90.9% of non-capital region respondents agreed with the statement. While the test was not statistically significant, this may show that non-capital respondents are more satisfied with where they live than capital region respondents. It is unsure how this test overlaps with the migration intention of moving to keep your main occupation or another occupation.

Another characteristic explored in the General Results section was work status as shown in **Table 4.12**. The results are statistically significant. It was found the Westfjords had the most self-employed workers (16.5%), followed by the capital region (13.5%), and then the

Western and Southern regions (12.5%). Most respondents in each region worked for someone else. It is also noted of the student bias that was found in the Westfjords. Generally, there are self-employed workers throughout the country, but the Northeast, Eastern, and Southern Peninsula regions have the least with less than 10.0% and 2 respondents in each region.

It was explored whether people found themselves innovative or creative and this was compared to their current region as shown in **Tables 4.8** and **4.9**. Through chi-squared tests of independence, none of the results are statistically significant when compared to current region. This indicates that these people are located throughout the country and not concentrated in one specific region. Overall, 61.4% of respondents considered themselves innovative and 73.3% considered themselves creative. This distribution of creatives and innovators does not necessarily align with Florida's (2002) theory that creative people feel drawn to urban tolerant places. It may be of consideration that Iceland's rural regions may be within the definition of "tolerant", but more research would be necessary for this exact definition. It is a good indicator though that even though most of the population is concentrated in the capital area, there are still innovators and creatives that live in the rural regions of Iceland. This further aligns with Hans-Joachim Braczyk et al. (1998) theory that the differences in regional development can no longer be explained because of physical and financial resources. Innovation does not follow spatial patterns in accordance with Gordon and McCann's (2005) fourth hypothesis of the geography of innovation.

Table 4.7 shows the frequency of the main challenges to rural development. The question was open-ended and the responses were categorized into 10 categories. The categories found were (1) education, (2) taxes/costs, (3) transportation, (4) services, (5) housing, (6) employment, (7) innovation, (8) climate issues, (9) healthcare, and (10) social issues. The top three responses were transportation (26.9%), social issues (24.6%), and employment (22.7%). When referring to transportation, transmission of electricity, network connection and shortening or the condition of roads were frequently mentioned. Public transport to rural areas and the distances required to reach the countryside was also a common theme in transportation. Regarding social issues, many issues discussed in the background section were mentioned such as the need to increase the number of young people in the countryside and flight of knowledge from the rural, which refers to the concepts of brain drain and human capital. Another major social issue noted was the concentration of resources to the capital

area both in terms of human capital as well as effects of the ITQ. One respondent noted that there was “too much government intervention and centralization” and another “the state directs everything to the southwest corner”. This further confirms the idea that there is a disconnect between the capital region and countryside as discussed in the Icelandic context of regional development.

To summarize this section of the results, the respondents confirmed that the issues of brain drain, centralization to Reykjavik and government structure are major issues to regional development in the countryside. Further, there is a migration intention before the concept of UBI was discussed from capital region residents to other parts of Iceland and outside of Iceland. Generally, it appears that people who live in rural regions of Iceland are more satisfied with where they live and have less migration intentions to other parts of the country and outside of Iceland.

5.4 Community Development and UBI

The Community Development and UBI results section focused on what the impacts of UBI could be on migration intentions as well as innovation and entrepreneurship. The first question that was asked was whether participants had heard of UBI before as shown in Table 2.16. 15.0% of participants had never heard of UBI before and another 4.2% were unsure. This shows that the survey informed 19.2% of respondents of the idea of UBI.

The next question was if you thought you could decrease your current workload with the introduction of UBI which was compared against work status. The results are not statistically significant but 36.9% of respondents disagreed with the statement while 45.3% agreed with it. Self-employed workers had the highest agreement with 60.5% of self-employed respondents agreeing. People who are studying were the next highest with 57.1% agreeing. This shows that UBI could decrease the workload of those who are self-employed and studying. 41.3% of those working for someone else agreed that they would be able to decrease their workload, but the majority thought that they would not be able to. This may be an indicator that those working for someone else would not just quit their job with the amount of UBI presented. While it was not directly asked if you would quit your job with UBI, this mindset shows that those working for someone else would not necessarily stop performing their current occupation. This is line with the literature about UBI effects, in

which UBI complemented current income to pay for meals, home goods, and household bills (Lowrey 2021).

When asked whether respondents would consider living in the capital region with UBI, 26.4% of those currently living in the capital region agreed that they would. Only 7.4% of those living in non-capital regions agreed that they would move to the capital region. 82.1% of non-capital region respondents disagreed with the statement. This shows a very strong desire to not move to the capital area with the implementation of UBI. Overall, 64.6% of respondents disagreed with living in the capital area and 12.5% agreed as also shown in the General Results section. This confirms a strong desire of rural residents to continue to live in the rural, which further justifies the need to develop solutions to living in the rural regions. This strong desire to continue to live in the rural could align with Greenwood & Hunt's (2003) conclusion that distance deters migration.

On the contrary, when asked whether participants would consider living in a rural region of Iceland with the implementation of UBI 56.7% agreed that they would. Only 15.4% disagreed with living in a rural region with UBI. Breaking it down further by region, 46.1% of people currently living in the capital region agreed that they would consider living in a rural region of Iceland. 25.8% of capital region respondents disagreed with living in a rural region. Compared to the previous question, this shows that capital region residents could be interested in living in a rural region instead of the capital region with the implementation of UBI. 10.6% of non-capital respondents disagreed with the statement, which is consistent with the previous questions responses of 7.4% agreed they would live in the capital region.

The next questions that were analyzed were current region and starting a business or organization with the implementation of UBI. 43.8% of respondents agreed that they would like to start a business or organization with the implementation of UBI. This is down from 45.1% of respondents who wanted to start a business before UBI, but up from 33.8% of respondents who wanted to start an organization before UBI. The overall results are higher with 138 of 315 (43.8%) wanting to start a business or organization with UBI and 133 of 337 (39.5%) wanting to start a business or organization before UBI. This is an increase of 4.3%.

When asked what type of projects or ideas that people would like to pursue outside of work, the majority of respondents (16.2%) said they would like to work on community related

issues. Examples of these are “better communication between residents in the local community,” “neighborhood associations,” and “community projects that strengthen community spirit, job creation, and strengthen settlements in the countryside.” These ideas are aligned with Neumeir’s (2011) concepts of social innovation, most notably a new way of organizing external relationships (outside of business and work). It is possible that UBI could provide people with the ability to create social innovations through reorganizing external relationships.

Summarizing this section of results, UBI may lead to an increase in the creation of businesses and organizations. These businesses and organizations may be more aligned with community development schemes that could create social innovation. Additionally, UBI may cause an increase of people considering living in a rural region of Iceland. Combining these two results leads to a conclusion that more people may live in rural regions and start businesses or organizations. This strengthens the research question that UBI could foster innovation and migration to rural regions of Iceland.

5.5 UBI Support

The final demographics section of the survey was tested against support of UBI to determine the characteristics of those who support and do not support UBI. The first characteristic analyzed was current region. A chi-squared test of independence was performed, and the results are statistically significant. The capital region has the highest support for UBI at 70.1% of respondents, followed by the Westfjords region, and Northeast region. For work status, those studying had the highest support of UBI (85.7%) followed by those who are self-employed (67.6%). The results are statistically significant.

The following statements summarize the support of UBI found:

- Support for UBI increases with considering yourself more innovative (statistically significant)
- Support for UBI increases with considering yourself more creative (statistically significant)
- Support for UBI increases if you want to start your own business before UBI (statistically significant)

- Support for UBI increases if you want to start your own organization before UBI (statistically significant)
- Support for UBI decreases as age increases (statistically significant)
- Women (54.4%) are more supportive of UBI than men (49.3%) (statistically significant)
- Support for UBI decreases as number of children increases (statistically significant)
- Support for UBI decreases as income increases (statistically significant)
- Support for UBI decreases as education increases (statistically significant)

These outcomes of support are an attempt to explain UBI support in Iceland. This main aim of the research provides an insight into UBI support in Iceland and supports the research in various ways. For one, support increases with the increase of considering yourself innovative and creative. Additionally, support increases directly with wanting to start your own business or organization. These positive trends show that creative and innovative people support UBI and support starting a business or organization in Iceland. Although the Capital region had the highest support, combining this with the conclusion that Capital region residents may be more likely to live in a rural region of Iceland with UBI shows a positive trend to a possible migration intention from the Capital region to rural regions with the possibility of starting a business or organization. Overall, support for UBI is around 52.5% according to this study which is an increase from Roosma & van Oorschot's 48% support in 2016. It is possible that support for UBI is growing in Iceland.

5.6 UBI Outcomes

The outcomes section is based on the open-ended questions about what the best outcomes of UBI could be as shown in **Table 4.39**. The answers were organized into eight categories and the leading best outcome is equality at 46.0%. The next leader answer was innovation at 22.0%. When discussing the best outcomes of UBI, participants mentioned “less stress, more innovation,” “better economic turnover in society, more security that creates better neighborly love, more entrepreneurship”, and leading to increased socio-economic equality. Participants also believe that UBI could lead to better mental and physical well-being, less unemployment and increased happiness. This question really shows that after the main benefit of a more equal society, people believe that more innovation would occur as people

would have more time to reduce their current workload, simplify the welfare system, and create a better economic system for Iceland.

The open-ended question of what the adverse outcomes of UBI could be was organized into ten categories. The leading adverse outcomes were laziness at 26.8% followed by bureaucratic costs at 26.4%. The third adverse outcome was employment at 20.8%. Further expanding on laziness, participants mention that people would have less initiative to work, and people could quit the job market without giving anything back to society. An increase in taxes is commonly mentioned when referring to bureaucratic costs to pay for UBI. Several respondents mentioned that UBI should have a cap based on current income per month. For example, if someone earned over 1.5 million isk they would not be able to receive the UBI. They also mentioned that if you did not have an idea to work on, participation in community development should be performed, such as planting trees or wetland restoration to combat climate change.

5.7 Implementation Considerations

The main intent of the thesis is to describe the potential impacts UBI could have on regional development, innovation, and migration. The research is more of a hypothetical situation in which UBI was implemented. It cannot, however, be ignored that there are major considerations for implementation of UBI in the real world. Through the research, several things were learned regarding the implementation of UBI.

It is reiterated here that some participants believe that there should be an income cap for those eligible to receive UBI. Another consideration is that participants believe the current welfare system is complicated. From the survey, one participant notes that they are not in favor of the benefit system today in the form of housing benefits, special housing benefits, and child benefits. This system, in their opinion, encourages cheating in the form of understanding papers and not registering for cohabitation and other issues. Various other participants mentioned that the welfare would become simpler as everyone would be entitled to the same. The research noted that some of these existing welfare benefits would be dissolved into the UBI but did not detail which ones specifically. Existing welfare benefits should be analyzed to see which ones could be condensed into a UBI policy.

Through discussions with the Pirate Party, the only Icelandic political party actively pushing this on their agenda, it was found that they are striving to move the needle regarding the conversation regarding UBI. Currently in Icelandic tax law, the first 64.000 isk of salary earned is not taxed and is like a negative income tax. The Pirate Party wants to provide this amount to people who do not work as well. It would essentially become the first UBI in Iceland. Over time, the party would like to increase this amount up to 200.000 ISK. Some desire to take the amount even further but for now the goal is 200.000 ISK. The distribution is desired to be to everyone with a kennitala, regardless of Icelandic citizenship. The party believes that the distribution would help students and artists to reduce their workload. The party believes that the UBI system could relieve some of the pressures of the bureaucratic system of other grants, as others have mentioned (Interview 1 2022).

Finally, Smicek and Williams (2015) opinions are reiterated regarding the implementation of UBI. For it to be successful, it should complement the welfare state and not replace it. Furthermore, UBI will require society to rethink the values that currently attributed to different types of work. The labor market will be able to choose which work they engage in and could reject jobs that did not pay well enough, required too much work, did not have enough benefits, or was not liked for other reasons (Smicek & Williams 2015). Additionally, when it comes to political considerations, it is important to engage government officials within the discussions of UBI (Lacey 2017) to show the possibilities of what UBI could do for society.

5.8 Further Research

The research presented here served as an initial consideration of UBI in Iceland. It details anticipated outcomes regarding regional development and combatting regional development issues such as brain drain, outmigration, and lack of employment. The research took a hypothetical approach to the implementation of UBI, but further research should be conducted in terms of large-scale societal impacts. This could be done through large-scale pilot projects, with a UBI amount like the one presented here and unconditional distribution for an undetermined amount of time. It appears that the small-scale pilot projects have had positive results, but most recipients understood that the distribution was finite and would end at some point in time.

Additionally, the research presented here could be further expanded on. There are additional research questions that could be answered from the data. Topics such as diving deeper into students' perspectives of UBI, and self-employed workers would be beneficial to understand the impact these groups could have with the implementation of UBI. Brain drain could be further researched, especially since a lot of respondents in the Westfjords were students. This presents itself as an opportunity to understand their perspectives as well.

Further research should also be conducted in terms of which welfare programs could be replaced with UBI to help understand the funding side of implementation. Many respondents mentioned that the existing benefits system is unfair or did not suit their needs and UBI would be able to remove some of the bureaucratic systems around welfare. It should be studied which ones are beneficial or could be absorbed into a UBI policy.

6 Conclusion

Unconditional basic income is traditionally thought of in ways that can eliminate poverty. The research presented here shows that it has the potential to increase innovation and entrepreneurship in the outlying communities of Iceland. Additionally, it could serve to help solve social issues of brain drain and outmigration. As outlying communities in Iceland continue to search for ways to diversify their economies, UBI could prove to be a useful tool if it is implemented. Certain implementation considerations should be taken into consideration, but the results show that it should be considered as a policy to foster innovation in Iceland and increase migration to outlying communities.

The research question “How could unconditional basic income foster innovation and affect internal migration in Iceland” is supported and shown by the results presented here. An increase of 4.3% in respondents would want to start a business or organization with the implementation of UBI. When asked what ideas they would like to pursue, respondents identified with new ways of organizing community relationships which could lead to social innovations. It is shown that people who live in the Capital region are open to living in other parts of the country and there is an increase in openness with the implementation of UBI. It was also shown that people who live in non-capital regions have a strong desire to stay there.

In terms of UBI support, the research shows that overall 52.5% of respondents are supportive of UBI, which is an increase from 2016 results (Roosma & van Oorschot 2020) of 48%. Innovative and creative people are more supportive of UBI as well as those who want to start their own business or organization. Women are more supportive of UBI than men and support for UBI decreases as income increases.

It is reiterated that the research presented here was not about feasibility of an unconditional basic income policy, but rather the impacts one could have on innovation and migration in Iceland. Further research should focus on large-scale pilot projects without a predetermined amount of time to take the next step in understanding the larger societal impacts UBI could have. Additionally, the data collected through this research could be further studied to better understand the impact of UBI on brain drain in Iceland. Lastly, research should advance the conversation of which welfare policies are beneficial or which ones could be replaced by a UBI.

A UBI policy should consider adopting an income cap for UBI distribution as expressed through the participants in this research. A UBI policy should complement the welfare state and not replace it and work should be done with government officials to adopt a cohesive policy. Society as a whole should be open to rethinking the values that are current attributed to different types of work (Smicek & Williams 2015).

References

- Alþingi. (2006, February 1). Lög um stjórn fiskveiða. Alþingi. <https://www.althingi.is/altext/lagasofn/132a/1990038.html>
- Alþingi. (2021, April 23). Lög um opinberan stuðning við nýsköpun. Alþingi. <https://www.althingi.is/altext/stjt/2021.025.html>
- Aradóttir, E., & Jóhannesson, H. (2007). Regional development in Iceland : an overview of recent trends and key policy responses. Rafhlaðan. <http://hdl.handle.net/10802/10819>
- Bay, A.-H., & Pedersen, A. W. (2006). The Limits of Social Solidarity Basic Income, Immigration and the Legitimacy of the Universal Welfare State. *Acta Sociologica*, 49(4), 419–436. <https://doi.org/10.1177/0001699306071682>
- Bjarnason, T., Stockdale, A., Shuttleworth, I., Eimermann, M., & Shucksmith, M. (2021). At the intersection of urbanisation and counterurbanisation in rural space: Microubanisation in Northern Iceland. *Journal of Rural Studies*, 87, 404–414. <https://doi.org/10.1016/j.jrurstud.2021.09.009>
- Blake, M. K., & Hanson, S. (2005). Rethinking Innovation: Context and Gender. *Environment and Planning A: Economy and Space*, 37(4), 681–701. <https://doi.org/10.1068/a3710>
- Byggðastofnun. (2022, May 3). Atvinnuþróunarfélög. Byggðastofnun. <https://www.byggdastofnun.is/is/verkefni/atvinnuthrounarfelog>
- Cercelaru, O.-V. (2016, June 1). Unconditional Basic Income – Impact on the Economy. *Analele Universității Constantin Brâncuși Din Târgu Jiu : Seria Economie*. <https://doaj.org/article/a2fdc05e6b8f4979906d53b2fcdcd6bb>
- Ciccia, R., & Bleijenbergh, I. (2014). After the Male Breadwinner Model? Childcare Services and the Division of Labor in European Countries. *Social Politics: International Studies in Gender, State & Society*, 21(1), 50–79. <https://doi.org/10.1093/sp/jxu002>
- Creswell, J. W. (2009). *Research design : qualitative, quantitative, and mixed methods approaches* (3rd ed.). Sage.
- European Commission. (2022, June 12). Iceland - Employment, Social Affairs & Inclusion - European Commission. Ec.europa.eu. <https://ec.europa.eu/social/main.jsp?catId=1114&langId=en&intPageId=4598>
- Eveline, J., & Bacchi, C. (2005). What are we mainstreaming when we mainstream gender? *International Feminist Journal of Politics*, 7(4), 496–512. <https://doi.org/10.1080/14616740500284417>

- Florida, R. (2002). *The rise of the creative class: and how it's transforming work, leisure, community and everyday life*. Basic Books.
- Fraser, N. (1994). After the Family Wage: Gender Equity and the Welfare State. *Political Theory*, 22(4), 591–618. <https://www.jstor.org/stable/192041?seq=1>
- Garðarsdóttir, Ó., Bjarnason, T., Jónsson, S. H., & Shuttleworth, I. (2020). Is internal migration declining in Iceland? Intensities, geographical patterns and population composition 1986–2017. *Population, Space and Place*. <https://doi.org/10.1002/psp.2339>
- Gedajlovic, E., Honig, B., Moore, C. B., Payne, G. T., & Wright, M. (2013). Social Capital and Entrepreneurship: A Schema and Research Agenda. *Entrepreneurship Theory and Practice*, 37(3), 455–478. <https://doi.org/10.1111/etap.12042>
- Hans-Joachim Braczyk, Cooke, P., & Heidenreich, M. (1998). *Regional innovation systems : the role of governances in a globalized world*. Ucl Press.
- jamovi. (2022, June 11). about - jamovi. Www.jamovi.org. <https://www.jamovi.org/about.html>
- Jones, D., & Marinescu, I. (2022). The Labor Market Impacts of Universal and Permanent Cash Transfers: Evidence from the Alaska Permanent Fund. *American Economic Journal: Economic Policy*, 14(2), 315–340. <https://doi.org/10.1257/pol.20190299>
- Kerr, B. A., Birdnow, M., Hallaert, J., Alexander, K., Malmsten, R., Stull, O., Wright, J. D., Lucas, B., Swanson, R., & Claiborn, G. J. (2017). Creativity and innovation in Iceland: Individual, environmental, and cultural variables. *Gifted and Talented International*, 32(1), 27–43. <https://doi.org/10.1080/15332276.2017.1397903>
- Kokorsch, M., & Benediktsson, K. (2018a). Where have all the people gone? The limits of resilience in coastal communities. *Norsk Geografisk Tidsskrift - Norwegian Journal of Geography*, 72(2), 97–114. <https://doi.org/10.1080/00291951.2018.1450289>
- Kokorsch, M., & Benediktsson, K. (2018b). Prosper or perish? The development of Icelandic fishing villages after the privatisation of fishing rights. *Maritime Studies*, 17(1), 69–83. <https://doi.org/10.1007/s40152-018-0089-5>
- Krolokke, C., & Sorensen, A. S. (2006). Three waves of feminism: From suffragettes to grrls. *Gender communication theories & analyses: From silence to performance*, 1-25.
- Labrianidis, L. (2006). Fostering entrepreneurship as a means to overcome barriers to development of rural peripheral areas in Europe. *European Planning Studies*, 14(1), 3–8. <https://doi.org/10.1080/09654310500339067>
- Lacey, A. (2017). Universal basic income as development solution? *Global Social Policy: An Interdisciplinary Journal of Public Policy and Social Development*, 17(1), 93–97. <https://doi.org/10.1177/1468018116684269>

- Lowrey, A. (2021, March 3). Stockton's Basic-Income Experiment Pays Off. The Atlantic. <https://www.theatlantic.com/ideas/archive/2021/03/stocktons-basic-income-experiment-pays-off/618174/>
- Maezawa Method. (2022, May 30). Maezawa Method Basic Income Social Experiment. Maezawa Method Basic Income Social Experiment. <https://www.yusakumaezawa.com/en/>
- Markley, D., Dabson, K., & Macke, D. (2006). Energizing an Entrepreneurial Economy A Guide for County Leaders Energizing an Entrepreneurial Economy. https://energizingentrepreneursorg.presencehost.net/file_download/8c846a38-f536-48fe-a84d-3674eba457f1
- MBISE 2020. (2020, June 30). Maezawa Method Basic Income Social Experiment Yields Lower Divorce Rates, Increases in Business Startups, and Happier People with 1-million-yen in Early Participant Study. Wwww.prnewswire.com. https://www.prnewswire.com/news-releases/maezawa-method-basic-income-social-experiment-yields-lower-divorce-rates-increases-in-business-startups-and-happier-people-with-1-million-yen-in-early-participant-study-301085488.html?tc=eml_cleartime
- Mincer, J. (1977). Family Migration Decisions. https://www.nber.org/system/files/working_papers/w0199/w0199.pdf
- Neumeier, S. (2011). Why do Social Innovations in Rural Development Matter and Should They be Considered More Seriously in Rural Development Research? - Proposal for a Stronger Focus on Social Innovations in Rural Development Research. Sociologia Ruralis, 52(1), 48–69. <https://doi.org/10.1111/j.1467-9523.2011.00553.x>
- Neumeier, S. (2016). Social innovation in rural development: identifying the key factors of success. The Geographical Journal, 183(1), 34–46. <https://doi.org/10.1111/geoj.12180>
- Norlén, G., Randall, L., Sánchez Gassen, N., Tapia, C. (2022). State of the Nordic Region 2022. Nordregio. <https://doi.org/10.6027/r2022:2.1403-2503>
- Oxfam. (2020, September). Feminist Futures: Caring for people, caring for justice and rights. Oxfam Policy & Practice. <https://policy-practice.oxfam.org/resources/feminist-futures-caring-for-people-caring-for-justice-and-rights-621046/>
- Oxford Languages. (2022). Oxford Languages and Google - English. Languages.oup.com; Oxford University Press. <https://languages.oup.com/google-dictionary-en/>
- Pecis, L. (2016). Doing and undoing gender in innovation processes. Human Relations, 69(11), 2117–2140. <https://doi.org/10.1177/0018726716634445>

- Pfau-Effinger, B. (2004). Socio-historical paths of the male breadwinner model - an explanation of cross-national differences1. *The British Journal of Sociology*, 55(3), 377–399. <https://doi.org/10.1111/j.1468-4446.2004.00025.x>
- Rannís. (2020). Umsóknir 2020. <https://www.rannis.is/media/listamannalaun/Uthlutun-2020-tafla.pdf>
- Rannís. (2021a, May 4). Listamannalaun. Rannsóknamiðstöð Íslands. <https://www.rannis.is/sjodir/menning-listir/starfslaun-listamanna/>
- Rannís. (2021b, May 4). Úthlutun listamannalauna 2020. Rannsóknamiðstöð Íslands. <https://www.rannis.is/frettir/uthlutun-listamannalauna-2020>
- Rannís. (2022, May 2). Spurt og svarað. Rannsóknamiðstöð Íslands. <https://www.rannis.is/sjodir/menning-listir/starfslaun-listamanna/spurt-og-svarad/>
- Roosma, F., & van Oorschot, W. (2019). Public opinion on basic income: Mapping European support for a radical alternative for welfare provision. *Journal of European Social Policy*, 095892871988282. <https://doi.org/10.1177/0958928719882827>
- Sæþórsdóttir, A. D., & Hall, C. M. (2019, July 1). Contested Development Paths and Rural communities: Sustainable Energy or Sustainable Tourism in Iceland? *Sustainability*. <https://doaj.org/article/dda1578f251e4ec8a7b795bf8f2dfc14>
- Schulz, P. (2017). Universal basic income in a feminist perspective and gender analysis. *Global Social Policy: An Interdisciplinary Journal of Public Policy and Social Development*, 17(1), 89–92. <https://doi.org/10.1177/1468018116686503>
- Schwander, H., & Vlandas, T. (2020). The Left and universal basic income: the role of ideology in individual support. *Journal of International and Comparative Social Policy*, 36(3), 237–268. <https://doi.org/10.1017/ics.2020.25>
- Sigurðardóttir, M., & Young, T. (2011, May). Towards Creative Iceland: building local, going global Quantitative and qualitative mapping of the cultural and creative sectors in Iceland. Haskoli Íslands. http://ibr.hi.is/sites/ibr.hi.is/files/skapandi_greinar/towardscreativeicelandreport.pdf
- Srnicek, N., & Williams, A. (2015). *Inventing the future : folk politics and the left*. Verso.
- Sullivan, D. M., & Meek, W. R. (2012). Gender and entrepreneurship: a review and process model. *Journal of Managerial Psychology*, 27(5), 428–458. <https://doi.org/10.1108/02683941211235373>
- Zelleke, A. (2011). Feminist political theory and the argument for an unconditional basic income. *Policy & Politics*, 39(1), 27–42. <https://doi.org/10.1332/030557311x546299>
- Zibran, M. (2007). CHI-Squared Test of Independence. <http://pages.cpsc.ucalgary.ca/~saul/wiki/uploads/CPSC681/topic-fahim-CHI-Square.pdf>

Appendix A – Ethics Clearance Letter



Research ethics training and clearance

University Centre of the Westfjords
Suðurgata 12
400 Ísafjörður, Iceland
+354 450 3040
info@uw.is

This letter certifies that Tyler Wacker has completed the following modules of:

- (X) Basic ethics in research
- (X) Human subjects research
- (X) Animal subjects research

Furthermore, the Masters Program Committee has determined that the proposed masters research entitled Unconditional Basic Income as a Means to Foster Innovation in Iceland meets the ethics and research integrity standards of the University Centre of the Westfjords. Throughout the course of his or her research, the student has the continued responsibility to adhere to basic ethical principles for the responsible conduct of research and discipline specific professional standards.

University Centre of the Westfjords ethics training certification and research ethics clearance is valid for one year past the date of issue unless otherwise noted.

Effective Date: 18 June 2021
Expiration Date: 18 June 2022

Prior to making substantive changes to the scope of research, research tools, or methods, the student is required to contact the Masters Program Committee to determine whether or not additional review is required.

Appendix B – Interview Guide

Interview Guide			
<p>Introduction: Thank you for taking the time to interview for my Master's thesis project titled "Unconditional Basic Income as Means to Foster Innovation in Iceland". I am an independent researcher from the University Centre of the Westfjords and the project is supervised by Dr. Matthias Kokorsch. My research is focused on what the impacts of UBI could have on innovation, migration tendencies, and other social changes. Your participation is invaluable to the project and you have been asked to interview because of your expertise in your field. The interview is a semi-structured format that will last no more than one hour. With your permission, the interviews will be audio recorded, is that okay? Do you have any questions before we begin? The data derived from this study will not be traceable to the individual and may be used in reports, presentations, and publications. The data collected will be adequately protected.</p>			
#	Question	Category	Interview Notes
THEME: Interviewee Introduction			
1	Can you tell me a little bit about yourself, your background, work etc.	Intro	
1a	What town do you live in?	Intro	
1b	Which town are you from?	Intro	
1c	What is your main occupation?	Intro	
THEME: Understanding interviewee's current work			
2	What is your current work status (Full-time, part-time, unemployed)?	Current Work	
3	Approximately how many hours do you work per week?	Current Work	
4	Do you have other jobs or commitments outside of your main occupation?	Current Work	
5	Can you tell me about your lifestyle?	Current Work	
THEME: Understanding migration history.			
6	Have you lived in other places?	Migration	
7	If so, what was your occupation and motivation to live there?	Migration	
8	Can you tell about what where you live now?	Migration	
9	What do you think are three of the most pressing issues in your community?	Migration	
THEME: Understanding innovative capacity			
10	How would you define innovation?	Innovation	
11	Do you consider yourself a creative or innovative person?	Innovation	

12	What are some projects or ideas that you would like to pursue at work or outside of work?	Innovation	
13	Have you ever considered starting a company or association?	Innovation/ Entrepreneurship	
	If yes, tell me about it. Why did or didn't it work out?	Innovation/ Entrepreneurship	
14	What do you think are the biggest challenges to rural development in Iceland?	Rural Development	
THEME: Developing an understanding of UBI (Interview Only)			
15	Have you heard of UBI (Borgaralaun)	UBI	
	The working definition of UBI for my research is as follows: It is a thought experiment where UBI is distributed to every Icelandic citizen. It would replace other social systems or benefit payments and is intended to cover your basic needs. It would be enough to cover housing, transportation, and groceries for the month. It would be distributed monthly with no end date.	UBI	
16	What is your understanding & opinion of UBI?	UBI	
17	In your opinion, what effect would UBI have on rural development, job creation, and/or innovation*		
THEME: How would UBI affect you & your community?			
	Imagine every other Icelandic citizen was given a monthly UBI of 150,000isk		
18	What effect would you expect UBI have on your daily work & life?	UBI Effects	
19	What effect would you expect UBI have on your geographic community (town)?	UBI Effects	
20	Would you consider living somewhere else if UBI was implemented?	UBI Effects	
21	Would you consider a different occupation if UBI was implemented?	UBI Effects	
22	Do you think others would live elsewhere or pursue different careers	UBI Effects	
23	What would be the best outcome of UBI?	UBI Effects	
	Would there be any adverse effects?	UBI Effects	
24	Is there anything else you would like to mention in regards to innovation or UBI that we have not discussed?		
25	Is there anyone else I should talk to about this topic?	Snowball	

Appendix C - Survey

Introduction

Thank you for taking the survey for my master's thesis project titled "Unconditional Basic Income as a Means to Foster Innovation in Iceland". The research is conducted by independent researcher Tyler Wacker who is a master's student in the Coastal Communities and Regional Development program at the University Centre of the Westfjords. The project is supervised by Dr. Matthias Kokorsch. The research is focused on what the impacts of unconditional basic income (UBI) could have on innovation, migration intentions, and other social changes. Your participation is invaluable to the project. The survey has 29 questions and takes approximately between 15 and 30 minutes. The data derived from this study will not be traceable to the individual and may be used in reports, presentations, and publications. The data collected will be adequately protected.

Section 1: This section will ask a few questions about where you live and your main occupation

1. Which post code are you currently registered to?
 0. Select from list of post codes
 2. Where do you identify as home?
 - a. Capital Region of Iceland
 - b. Southern Peninsula Region of Iceland
 - c. Western Region of Iceland
 - d. Westfjords Region of Iceland
 - e. Northeast Region of Iceland
 - f. Northwest Region of Iceland
 - g. Eastern Region of Iceland
 - h. Southern Region of Iceland
 - i. Outside of Iceland
 3. Where would you like to live in 5 years?
 - a. Capital Region of Iceland
 - b. Southern Peninsula Region of Iceland
 - c. Western Region of Iceland
 - d. Westfjords Region of Iceland
 - e. Northeast Region of Iceland
 - f. Northwest Region of Iceland
 - g. Eastern Region of Iceland
 - h. Southern Region of Iceland
 - i. Outside of Iceland
 3. What is your current work status
 - a. I am self-employed
 - b. I am working for someone else
 - c. I am studying
 - d. I am temporarily out of work (including maternity leave)
 - e. I am retired
 - f. I am not in the job market for other reasons
 - g. I do not want to answer
-
1. Which sector do you work in? Select all that apply.

- a. Agriculture
- b. Education
- c. Business, trade, or finances
- d. Fisheries
- e. Science and technology
- f. Tourism
- g. Health or social services
- h. Cultural sector
- i. Creative/Innovative sector
- j. Transportation
- k. Mechanical, industrial or construction services
- l. Other (what)
- m. I do not work

1. Do you have other jobs or commitments (such as volunteering) outside of this work?
 - a. Yes
 - b. No
1. How many hours per week do you spend on projects/volunteering outside of your main occupation?
 - a. 0
 - b. 1-5
 - c. 6-10
 - d. 11-20
 - e. 20+

Section II: This section will discuss your main occupation and where you live.

1. To what extent do you agree or disagree with the following statements

I would move to keep my main occupation	(1) strongly disagree (2) somewhat disagree (3) neither nor (4) somewhat agree (5) strongly agree
I would move to pursue another occupation	
I could imagine myself living somewhere other than I live now	
Overall, I am satisfied with where I currently live	
Overall, all of my monthly financial needs are met	

1. To what extent do the following reasons have an impact on where you currently live?

Occupational reasons	(1) No impact
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Family reasons	(2) Some impact (3) Strong impact
Educational reasons	
Other personal reasons	

1. What do you think are the three most pressing issues in your community?
 - a.
 - b.
 - c.
2. If at all, what do you think are the main challenges to rural development in Iceland?
 0. Short answer
 - 1.
3. To what extent do you agree or disagree with the following statements

I consider myself an innovative person	(1) strongly disagree (2) somewhat disagree (3) neither nor (4) somewhat agree (5) strongly agree
I consider myself a creative person	
I would like to start my own company	
I would like to start an organization in my community	

1. If at all, which projects or ideas would you like to pursue at work or outside of work?
 0. Short answer

Section III: This section will introduce unconditional basic income in terms of the research.

1. Have you heard of unconditional basic income (UBI or Borgaralaun)
 - a. Yes
 - b. No
 - c. Not Sure

Unconditional basic income (referred to as UBI henceforth) is a policy that is intended to distribute wealth and eradicate poverty. It has not been fully implemented anywhere in the world.

There have been various experiments throughout the world and some regular distribution payments exist in certain places. Some studies show that recipients of a UBI become happier and/or are more likely to start a business. Opponents of UBI theorize that recipients could exploit the payment and not contribute to society, as well as being too expensive to feasibly fund. Proponents of UBI theorize that it could have the ability to

change existing social and economic structures typically characterized by rigid hierarchies of wealth based on race, ethnic, gender, and class divisions

The working definition of UBI for my research is as follows: It is a thought experiment where a set amount of money is distributed monthly to every Icelandic citizen (no age requirement) . It would replace most social benefit payments such as housing benefits, unemployment benefits, and/or child allowances. It is intended to help pay for your basic needs (i.e. housing, transportation, and/or food). Payments would be distributed without an end date. The research does not study the feasibility or funding of UBI, but rather what the impacts of UBI could be if it was implemented.

Section IV: This section is about possible changes that could occur to your own work and life if UBI was implemented. Imagine every Icelandic citizen was given a UBI of 200,000isk per month.

1. To what extent do you agree or disagree with the following statements, **envisioning that UBI was implemented.**

I would be able to decrease the workload of my main occupation	(1) strongly disagree (2) somewhat disagree (3) neither nor (4) somewhat agree (5) strongly agree
I would consider a different occupation	
I would consider living in the Capital Region of Iceland	
I would consider living in a rural region of Iceland	
I would consider living outside of Iceland	
I would consider starting a business or organization	
I would spend more time on creative project(s)	

Section V: This section will discuss possible changes that could occur to others' work and life if a UBI of 200,000 isk per month was implemented.

1. To what extent do you agree or disagree with the following statements, **envisioning that UBI was implemented.**

I would expect others main occupation workload to decrease	(1) strongly disagree (2) somewhat disagree (3) neither nor (4) somewhat agree (5) strongly agree
I think others would pursue a different occupation	
I think people would be more likely to live in the Capital Region of Iceland	

I think people would be more likely to live in a rural region of Iceland	
I think people would be more likely to live outside of Iceland	
I think people would consider starting a business or organization	
I think people would spend more time on creative project(s)	

1. In general, to what extent do you support the idea of UBI?
 0. (1) strongly do not support; (2) somewhat do not support; (3) neither nor; (4) somewhat support ; (5) strongly support

1. What do you think about the amount presented (200,000isk per month, equivalent to 2,400,000isk per year)
 - a. Too little
 - b. Just right
 - c. Too much
 - d. I do not support the idea of UBI

Section VI: This is the last section about UBI, which has open-ended questions and gives you the opportunity to comment on some aspects.

1. If at all, what do you think could be the best outcomes of implementing UBI?
 0. Short answer
2. If at all, what adverse effects do you think UBI could have?
 0. Short answer
3. If at all, what are some projects or ideas you would pursue if UBI was implemented?
 0. Short answer
4. Is there anything else you would like to mention in regards to the research?
 0. Short answer

Section VII: The last section covers some demographic information.

1. What is your age?
 - a. <18
 - b. 18-25
 - c. 26-35
 - d. 36-50
 - e. 51-65
 - f. 66+
 - g. I do not want to answer
2. Which gender do you identify with?
 - a. Male
 - b. Female
 - c. Non-binary
 - d. Other

- e. I do not want to answer
- 3. Are you an Icelandic citizen?
 - a. Yes
 - b. No
 - c. I do not want to answer
- 4. How many people live in your household (including children)?
 - a. 1
 - b. 2
 - c. 3
 - d. 4
 - e. 5
 - f. 6 or more
 - g. I do not want to answer
- 5. How many children (younger than 18) do you have?
 - a. 0
 - b. 1
 - c. 2
 - d. 3
 - e. 4 or more
 - f. I do not want to answer
- 6. What is your monthly household income before taxes (isk)?
 - a. <249,999
 - b. 250,000 to 499,999
 - c. 500,000 to 749,999
 - d. 750,000 to 999,999
 - e. 1,000,000+
 - f. I do not want to answer
- 7. What is the highest level of education you have completed?
 - a. Did not complete high school or secondary school
 - b. High school or secondary school diploma
 - c. Trade school certificate
 - d. Bachelor's degree
 - e. Master's degree
 - f. PhD degree
 - g. I do not want to answer

Appendix D – Raw Results

Which post code are you currently registered to?

Analysis: Urban versus non-urban

Urban = Population 5,000+

Non-Urban = Population 4,999 and below

Levels	Counts	% of Total	Cumulative %
Urban	126	37.4%	37.4%
Non Urban	211	62.6%	100.0%
Total	337		

Which post code are you currently registered to?

Analysis: Capital Region versus Non-Capital Region

Capital Region = Post codes: 101, 102, 103, 104, 105, 107, 108, 109, 110, 111, 112, 113, 116, 150, 161, 162, 170, 200, 201, 203, 206, 210, 220, 221

Non-Capital Region: All others

Levels	Counts	% of Total	Cumulative %
Capital	96	28.5%	28.5%
Non-Capital	241	71.5%	100.0%
Total	337		

Which post code are you currently registered to?

Analysis: Region

Levels	Counts	% of Total	Cumulative %
Capital	96	28.5%	28.5%
Southern Peninsula	22	6.5%	35.0%
Western	40	11.9%	46.9%
Westfjords	79	23.4%	70.3%
Northwest	36	10.7%	81.0%
Northeast	20	5.9%	86.9%
East	20	5.9%	92.9%
South	24	7.1%	100.0%
Total	337		

Where do you identify as home?

Levels	Counts	% of Total	Cumulative %
Capital	93	27.4%	27.4%
Southern	22	6.5%	33.9%
Western	38	11.2%	45.1%
Westfjords	72	21.2%	66.4%
Northeast	36	10.6%	77.0%
Northwest	23	6.8%	83.8%
Eastern	15	4.4%	88.2%
Southern	28	8.3%	96.5%
Outside of Iceland	12	3.5%	100.0%
Total	339		

Where would you like to live in 5 years?

Levels	Counts	% of Total	Cumulative %
Capital	86	25.4%	25.4%
Southern	18	5.3%	30.8%
Western	39	11.5%	42.3%
Westfjords	58	17.2%	59.5%
Northeast	39	11.5%	71.0%
Northwest	19	5.6%	76.6%
Eastern	12	3.6%	80.2%
Southern	35	10.4%	90.5%
Outside of Iceland	32	9.5%	100.0%
Total	338		

What is your current work status

Levels	Counts	% of Total	Cumulative %
Self-Employed	40	11.8%	11.8%
Working for Someone Else	256	75.5%	87.3%
Studying	23	6.8%	94.1%
Not Working	20	5.9%	100.0%
Total	339		

Which sector do you work in?

Levels	Counts	% of Total	Cumulative %
Agriculture	5	1.5%	1.5%
Education	59	17.4%	18.9%
Business Trade Finance	28	8.3%	27.1%
Fisheries	8	2.4%	29.5%
Science	14	4.1%	33.6%
Tourism	10	2.9%	36.6%
Healthcare Services	15	4.4%	41.0%
Cultural	18	5.3%	46.3%
Creative	18	5.3%	51.6%
Transportation	3	0.9%	52.5%
Mechanical Service	6	1.8%	54.3%
Public Sector	97	28.6%	82.9%
I do not work	20	5.9%	88.8%
Multiple	38	11.2%	100.0%
Total	339		

Do you have other jobs or commitments (such as volunteering) outside of this work?

Levels	Counts	% of Total	Cumulative %
No	121	35.6%	35.6%
Yes	219	64.4%	100.0%
Total	340		

How many hours per week do you spend on projects/volunteering outside of your main occupation?

Levels	Counts	% of Total	Cumulative %
0	111	32.6%	32.6%
1+	229	67.4%	100.0%
Total	340		

How many hours per week do you spend on projects/volunteering outside of your main occupation?

Levels	Counts	% of Total	Cumulative %
0	111	32.6%	32.6%
1 to 5	149	43.8%	76.5%
6+	80	23.5%	100.0%
Total	340		

I would move to keep my main occupation

Levels	Counts	% of Total	Cumulative %
Disagree	153	45.3%	45.3%
Neither Nor	76	22.5%	67.8%
Agree	109	32.2%	100.0%
Total	338		

I would move to pursue another occupation

Levels	Counts	% of Total	Cumulative %
Disagree	125	37.1%	37.1%
Neither Nor	55	16.3%	53.4%
Agree	157	46.6%	100.0%
Total	337		

I could imagine myself living somewhere other than I live now

Levels	Counts	% of Total	Cumulative %
Disagree	68	20.2%	20.2%
Neither Nor	49	14.5%	34.7%
Agree	220	65.3%	100.0%
Total	337		

Overall, I am satisfied with where I currently live

Levels	Counts	% of Total	Cumulative %
Disagree	26	7.7%	7.7%
Neither Nor	16	4.7%	12.4%
Agree	297	87.6%	100.0%
Total	339		

Overall, all of my monthly financial needs are met

Levels	Counts	% of Total	Cumulative %
Disagree	51	15.1%	15.1%
Neither Nor	28	8.3%	23.4%
Agree	258	76.6%	100.0%
Total	337		

To what extent do the following reasons have an impact on where you currently live:
Occupational

Levels	Counts	% of Total	Cumulative %
None	110	32.4%	32.4%
Some	145	42.8%	75.2%
Strong	84	24.8%	100.0%
Total	339		

To what extent do the following reasons have an impact on where you currently live: Family

Levels	Counts	% of Total	Cumulative %
None	88	26.0%	26.0%
Some	197	58.3%	84.3%
Strong	53	15.7%	100.0%
Total	338		

To what extent do the following reasons have an impact on where you currently live:
Educational

Levels	Counts	% of Total	Cumulative %
None	65	19.8%	19.8%
Some	34	10.4%	30.2%
Strong	229	69.8%	100.0%
Total	328		

To what extent do the following reasons have an impact on where you currently live: Other
Personal Reasons

Levels	Counts	% of Total	Cumulative %
None	108	34.3%	34.3%
Some	105	33.3%	67.6%
Strong	102	32.4%	100.0%
Total	315		

What do you think are the three most pressing issues in your community?

Levels	Counts	% of Total	Cumulative %
Education	26	9.0%	9.0%
Taxes/Bureaucratic	10	3.5%	12.5%
Transportation	36	12.5%	25.0%
Services	23	8.0%	33.0%
Housing	26	9.0%	42.0%
Employment	52	18.1%	60.1%
Innovation	9	3.1%	63.2%
Climate/Environment	29	10.1%	73.3%
Healthcare	24	8.3%	81.6%
Social issues	53	18.4%	100.0%
Total	288		

What do you think are the three most pressing issues in your community?

Levels	Counts	% of Total	Cumulative %
Education	32	11.3%	11.3%
Taxes/Bureaucratic	5	1.8%	13.0%
Transportation	47	16.5%	29.6%
Services	22	7.7%	37.3%
Housing	30	10.6%	47.9%
Employment	35	12.3%	60.2%
Innovation	10	3.5%	63.7%
Climate/Environment	23	8.1%	71.8%
Healthcare	23	8.1%	79.9%
Social issues	57	20.1%	100.0%
Total	284		

What do you think are the three most pressing issues in your community?

Levels	Counts	% of Total	Cumulative %
Education	22	8.2%	8.2%
Taxes/Bureaucratic	10	3.7%	11.9%
Transportation	34	12.6%	24.5%
Services	35	13.0%	37.5%
Housing	9	3.3%	40.9%
Employment	32	11.9%	52.8%
Innovation	5	1.9%	54.6%
Climate/Environment	22	8.2%	62.8%
Healthcare	25	9.3%	72.1%
Social issues	75	27.9%	100.0%
Total	269		

If at all, what do you think are the main challenges to rural development in Iceland?

Levels	Counts	% of Total	Cumulative %
Education	7	2.7%	2.7%
Taxes/Bureaucratic	11	4.2%	6.9%
Transportation	70	26.9%	33.8%
Services	19	7.3%	41.2%
Housing	12	4.6%	45.8%
Employment	59	22.7%	68.5%
Innovation	7	2.7%	71.2%
Climate/Environment	6	2.3%	73.5%
Healthcare	5	1.9%	75.4%
Social issues	64	24.6%	100.0%
Total	260		

I consider myself an innovative person

Levels	Counts	% of Total	Cumulative %
Disagree	45	13.3%	13.3%
Neither Nor	84	24.9%	38.2%
Agree	209	61.8%	100.0%
Total	338		

I consider myself a creative person

Levels	Counts	% of Total	Cumulative %
Disagree	23	6.8%	6.8%
Neither Nor	64	19.0%	25.9%
Agree	249	74.1%	100.0%
Total	336		

I would like to start my own company

Levels	Counts	% of Total	Cumulative %
Disagree	90	26.7%	26.7%
Neither Nor	95	28.2%	54.9%
Agree	152	45.1%	100.0%
Total	337		

I would like to start an organization in my community

Levels	Counts	% of Total	Cumulative %
Disagree	91	27.2%	27.2%
Neither Nor	129	38.5%	65.7%
Agree	115	34.3%	100.0%
Total	335		

If at all, which projects or ideas would you like to pursue at work or outside of work?

Levels	Counts	% of Total	Cumulative %
Education	15	7.6%	7.6%
Transportation	3	1.5%	9.1%
Services	26	13.1%	22.2%
Housing	4	2.0%	24.2%
Employment	9	4.5%	28.8%
Innovation	25	12.6%	41.4%
Climate/Environment	27	13.6%	55.1%
Health	12	6.1%	61.1%
Art	26	13.1%	74.2%
Community	32	16.2%	90.4%
Multiple	19	9.6%	100.0%
Total	198		

Have you heard of unconditional basic income (UBI or Borgaralaun)

Levels	Counts	% of Total	Cumulative %
No	50	15.0%	15.0%
Yes	270	80.8%	95.8%
Not Sure	14	4.2%	100.0%
Total	334		

I would be able to decrease the workload of my main occupation

Levels	Counts	% of Total	Cumulative %
Disagree	118	36.9%	36.9%
Neither Nor	57	17.8%	54.7%
Agree	145	45.3%	100.0%
Total	320		

I would consider a different occupation

Levels	Counts	% of Total	Cumulative %
Disagree	179	55.8%	55.8%
Neither Nor	58	18.1%	73.8%
Agree	84	26.2%	100.0%
Total	321		

I would consider living in the Capital Region of Iceland

Levels	Counts	% of Total	Cumulative %
Disagree	206	64.6%	64.6%
Neither Nor	73	22.9%	87.5%
Agree	40	12.5%	100.0%
Total	319		

I would consider living in a rural region of Iceland

Levels	Counts	% of Total	Cumulative %
Disagree	49	15.4%	15.4%
Neither Nor	89	27.9%	43.3%
Agree	181	56.7%	100.0%
Total	319		

I would consider living outside of Iceland

Levels	Counts	% of Total	Cumulative %
Disagree	147	45.9%	45.9%
Neither Nor	98	30.6%	76.6%
Agree	75	23.4%	100.0%
Total	320		

I would consider starting a business or organization

Levels	Counts	% of Total	Cumulative %
Disagree	96	30.2%	30.2%
Neither Nor	84	26.4%	56.6%
Agree	138	43.4%	100.0%
Total	318		

I would spend more time on creative project(s)

Levels	Counts	% of Total	Cumulative %
Disagree	63	19.7%	19.7%
Neither Nor	66	20.6%	40.3%
Agree	191	59.7%	100.0%
Total	320		

I would expect others main occupation workload to decrease

Levels	Counts	% of Total	Cumulative %
Disagree	75	23.7%	23.7%
Neither Nor	49	15.5%	39.1%
Agree	193	60.9%	100.0%
Total	317		

I think others would pursue a different occupation

Levels	Counts	% of Total	Cumulative %
Disagree	52	16.5%	16.5%
Neither Nor	101	32.0%	48.4%
Agree	163	51.6%	100.0%
Total	316		

I think people would be more likely to live in the Capital Region of Iceland

Levels	Counts	% of Total	Cumulative %
Disagree	147	46.7%	46.7%
Neither Nor	126	40.0%	86.7%
Agree	42	13.3%	100.0%
Total	315		

I think people would be more likely to live in a rural region of Iceland

Levels	Counts	% of Total	Cumulative %
Disagree	60	18.9%	18.9%
Neither Nor	108	34.1%	53.0%
Agree	149	47.0%	100.0%
Total	317		

I think people would be more likely to live outside of Iceland

Levels	Counts	% of Total	Cumulative %
Disagree	104	32.8%	32.8%
Neither Nor	144	45.4%	78.2%
Agree	69	21.8%	100.0%
Total	317		

I think people would consider starting a business or organization

Levels	Counts	% of Total	Cumulative %
Disagree	45	14.2%	14.2%
Neither Nor	92	29.0%	43.2%
Agree	180	56.8%	100.0%
Total	317		

I think people would spend more time on creative project(s)

Levels	Counts	% of Total	Cumulative %
Disagree	39	12.3%	12.3%
Neither Nor	68	21.5%	33.8%
Agree	210	66.2%	100.0%
Total	317		

In general, to what extent do you support the idea of UBI?

Levels	Counts	% of Total	Cumulative %
Do Not Support	82	25.7%	25.7%
Neither Nor	70	21.9%	47.6%
Support	167	52.4%	100.0%
Total	319		

What do you think about the amount presented (200,000isk per month, equivalent to 2,400,000isk per year)

Levels	Counts	% of Total	Cumulative %
Too Little	76	24.2%	24.2%
Just Right	153	48.7%	72.9%
Too Much	15	4.8%	77.7%
Do Not Support	70	22.3%	100.0%
Total	314		

If at all, what do you think could be the best outcomes of implementing UBI?

Levels	Counts	% of Total	Cumulative %
Equality	92	46.0%	46.0%
Bureaucratic Costs	1	0.5%	46.5%
Employment	23	11.5%	58.0%
Innov	44	22.0%	80.0%
Community	19	9.5%	89.5%
Multiple	7	3.5%	93.0%
Do Not Support	12	6.0%	99.0%
1None	2	1.0%	100.0%
Total	200		

If at all, what adverse effects do you think UBI could have?

Levels	Counts	% of Total	Cumulative %
Equality	25	10.8%	10.8%
Bureaucratic_Costs	61	26.4%	37.2%
Employment	48	20.8%	58.0%
Innov	1	0.4%	58.4%
Community	4	1.7%	60.2%
Migration	3	1.3%	61.5%
Laziness	62	26.8%	88.3%
Multiple	6	2.6%	90.9%
Does Not Support	2	0.9%	91.8%
1None	19	8.2%	100.0%
Total	231		

If at all, what are some projects or ideas you would pursue if UBI was implemented?

Levels	Counts	% of Total	Cumulative %
Edu	12	5.8%	5.8%
Transpo	5	2.4%	8.2%
Services/Tourism	9	4.3%	12.6%
Housing	3	1.4%	14.0%
Employment	6	2.9%	16.9%
Innov	24	11.6%	28.5%
Climate	22	10.6%	39.1%
Health	16	7.7%	46.9%
Art	30	14.5%	61.4%
Community	30	14.5%	75.8%
Multiple	11	5.3%	81.2%
No Change	39	18.8%	100.0%
Total	207		

What is your age?

Levels	Counts	% of Total	Cumulative %
18-25	14	6.0%	6.0%
26-35	50	21.4%	27.4%
36-50	118	50.4%	77.8%
51-65	44	18.8%	96.6%
60+	8	3.4%	100.0%
Total	234		

Which gender do you identify with?

Levels	Counts	% of Total	Cumulative %
Male	136	44.3%	44.3%
Female	170	55.4%	99.7%
Non-Binary	1	0.3%	100.0%
Total	307		

Are you an Icelandic citizen?

Levels	Counts	% of Total	Cumulative %
No	44	14.2%	14.2%
Yes	266	85.8%	100.0%
Total	310		

How many people live in your household (including children)?

Levels	Counts	% of Total	Cumulative %
1	35	11.4%	11.4%
2-4	225	73.1%	84.4%
5+	48	15.6%	100.0%
Total	308		

How many children (younger than 18) do you have?

Levels	Counts	% of Total	Cumulative %
Zero	200	59.7%	59.7%
1+	135	40.3%	100.0%
Total	335		

What is your monthly household income before taxes (isk)?

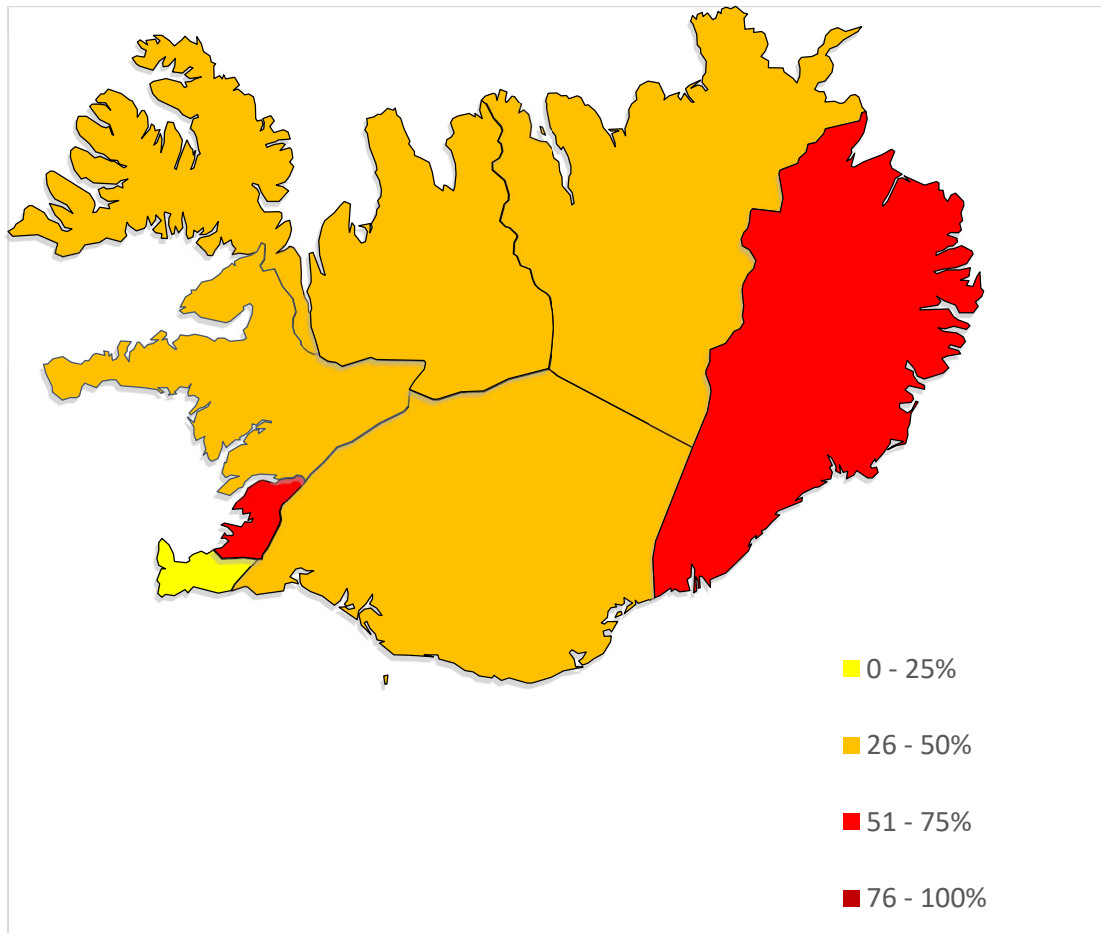
Levels	Counts	% of Total	Cumulative %
<499,999	68	23.7%	23.7%
500,000 to 749,999	68	23.7%	47.4%
750,000 to 999,999	86	30.0%	77.4%
> 1 million	65	22.6%	100.0%
Total	287		

What is the highest level of education you have completed?

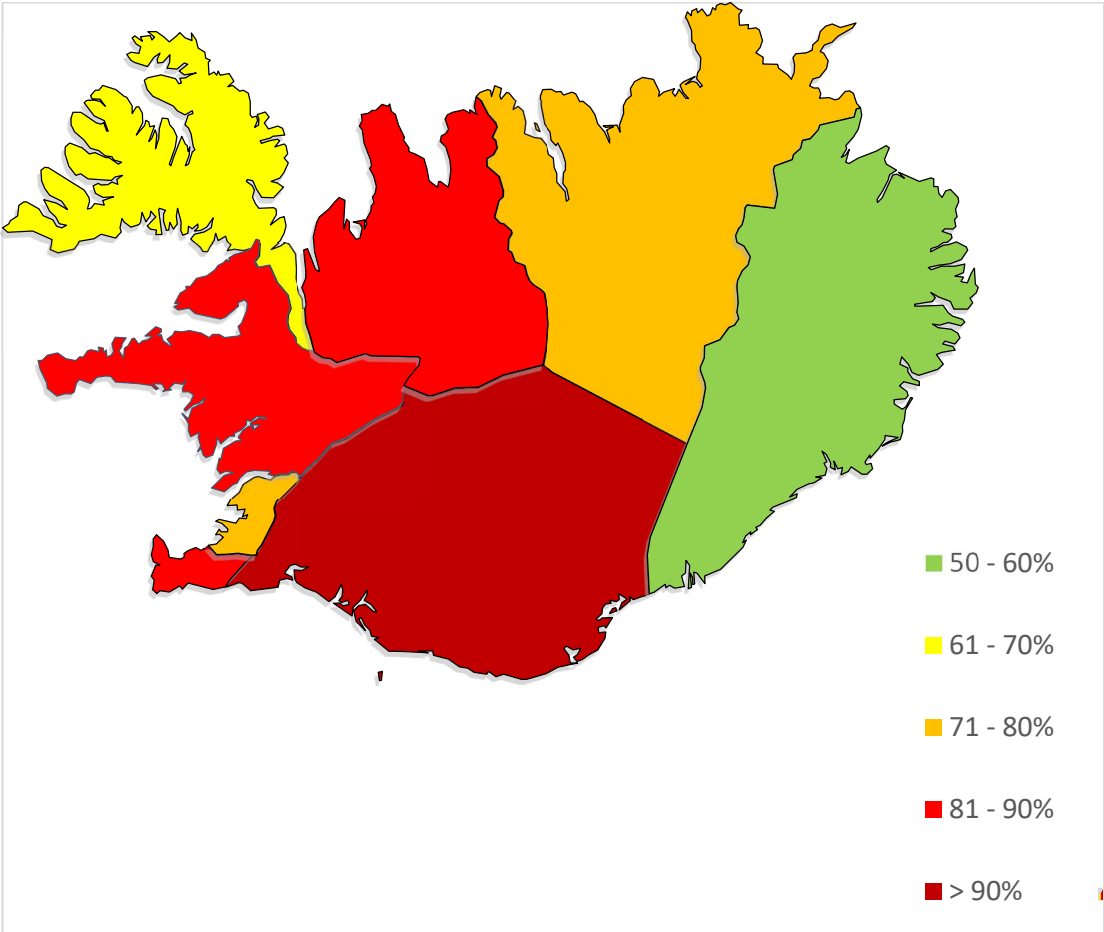
Levels	Counts	% of Total	Cumulative %
<= Trade School	31	10.2%	10.2%
Bachelors	152	50.0%	60.2%
Masters/PhD	121	39.8%	100.0%
Total	304		

Appendix E – Selected Maps

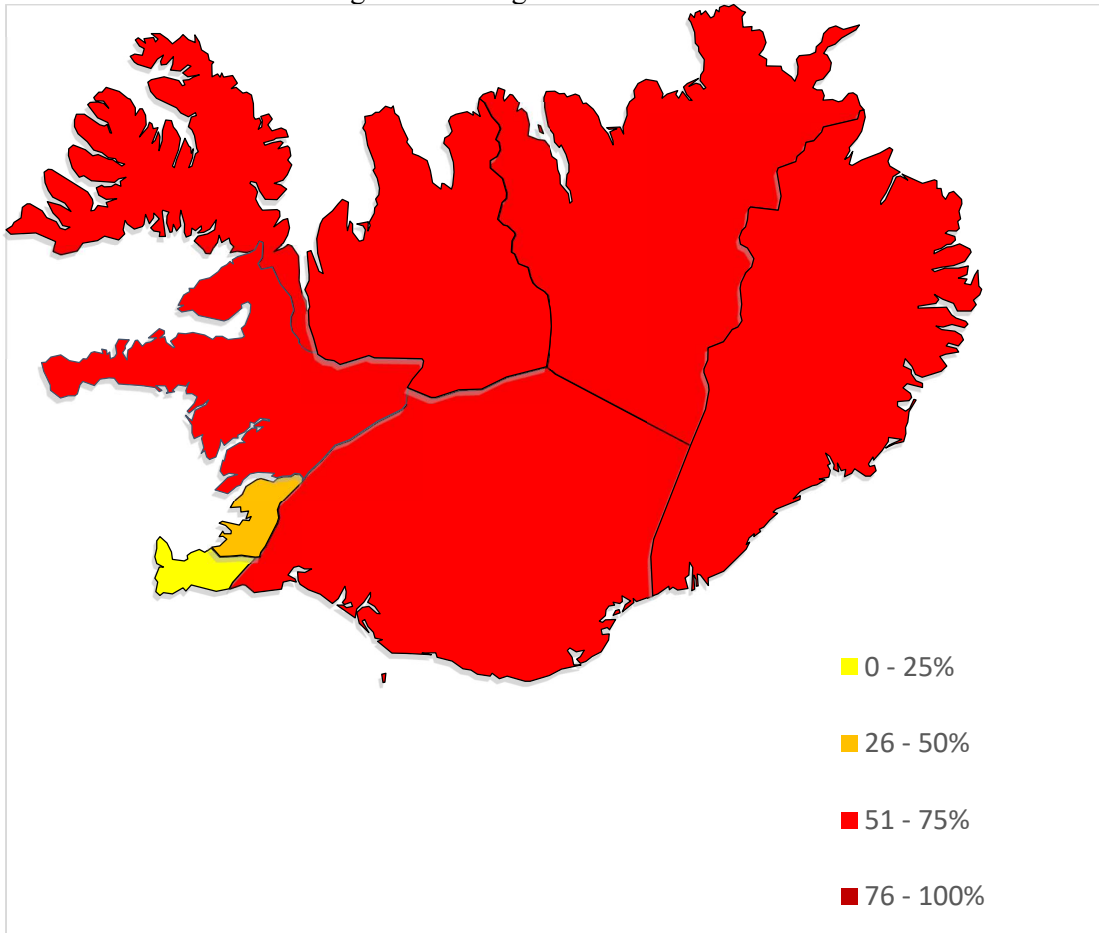
Percent want to start their own business – Before UBI



Percent want to live in the same region in five years – Before UBI



Percent would consider living in a rural region – With UBI



Percent Support of UBI in Iceland

