

UNIVERSITY OF LJUBLJANA
SCHOOL OF ECONOMICS AND BUSINESS

MASTER'S THESIS

**NON-FINANCIAL REASONS FOR EMIGRATION OF SLOVENIAN
HIGHLY SKILLED LABOUR FORCE**

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LIST OF ABBREVIATIONS

CPI – Corruption perception index

e.g. – for example

ESS – Employment Service of Slovenia

et al. – and others

etc. – and so forth

EU – European Union

FDI – Foreign Direct Investments

i.e. –that is

IOM – International Organization for Migration

OECD – Organization for Economic Co-operation and Development

STEM – Science, technology, engineering, and mathematics

SURS – Statistical Office of the Republic of Slovenia

UK – United Kingdom

UN – United Nations

US – United States

WHO – World Health Organization

INTRODUCTION

The global economy has seen an increase in the global mobility of highly skilled individuals including students, scientists, and engineers with economic, technological, and cultural factors making mobility more affordable and less irreversible than in the past (OECD, 2016). Given that a country's investment in highly educated individuals is typically the highest, and that highly educated individuals tend to generate the greatest value-added, it is imperative to examine the phenomenon of highly educated individuals migrating, commonly referred to as "brain drain." As Davenport (2004, p. 618) mentions, already at the end of the last century, the United States (hereinafter US), Australia, Canada, France and Germany were the main host countries, accounting for 93% of total migration flows of scientists and engineers to OECD countries.

Influenced and enhanced by globalisation – the labour market has become more dynamic and facilitated the migration of people (Trenz & Triandafyllidou, 2017; Svazas & Liberyte, 2019). Brain drain, which describes the outflow of highly educated people from their origin countries, has emerged as a critical issue in the contemporary globalised world. This phenomenon holds significant implications for both sending and receiving countries, reflecting several dimensions.

Already in 2015, more than 244 million international migrants were estimated to live in a foreign country, leaving apart massive number of people relocated in their own country, not necessarily relocating to high-income countries but resettling in neighbouring or other low-income countries for various reasons (Castelli, 2018). The migration of a highly skilled labour force from low-resource to high-resource environments is a ubiquitous global phenomenon that is insufficiently understood (Dohlman, DiMeglio, Hajj, & Laudanski., 2019), and, while jobs and other economic factors clearly matter, non-economic motivations to migrate play powerful roles in long as well as short distance migration (Clark & Maas, 2015).

Talented and skilled individuals have a key role to play in countries' future prosperity as they hold jobs – key for technological progress as they ensure innovation, contributing to stronger economic growth with other employment opportunities and better living conditions for all (OECD, 2023b). Scholars say brain drain for each country represents a loss of development potential in all fields, especially the ones that contribute to the GDP, such as natural sciences, technics, and medicine in turn –as highlighted by Slovenian researcher Vito Turk, health, a clean environment, and products with high added value are the ones allowing for the universal standard in society (Strniša, 2009).

For Slovenia, the issue of migration, more specifically labour migration, has in recent years become a common topic of discussion, and as Slovenian minister of higher education, science and innovation Igor Papič declared, "If nothing is changed, Slovenia will be providing free education of its labour force for the foreign countries." (Bezljaj, 2022).

Slovenia can easier achieve its skill needs by avoiding brain drain – retaining and attracting talented people from Slovenia and abroad to help it infuse new knowledge, technology, and innovation into the economy, which is hard to achieve as highly skilled workers have a relatively low potential for earnings in Slovenia, which in part reflects in relatively high social security contributions (OECD, 2017a). While concerns about brain drain are raised often, seems like there is a lack of policy solutions on the national level. Low wages and a lack of modern organisation and management practices in Slovenian workplaces are only some of the reasons causing high-skilled workers to flee Slovenia (OECD, 2017a).

The relevance of the brain drain issue in Slovenia is evident. Continuous articles in popular Slovenian news media are published, questioning the government’s acts or seeking general reasons for brain drain as the emigration trends are increasing. Slovenian media regularly write about the brain drain topic in Slovenia. Table 1 shows a list of articles on brain drain written by some handpicked established news media, published since 2019.

Table 1: Extract of Slovenian media reporting on brain drain, 2019-2023

News media company	Translated article title
Delo	<ul style="list-style-type: none"> - The damage is equal for each expatriate (Intihar, 2023b). - Youth is not interested in old grudges (Intihar, 2023a). - Between zebras and nibbled apples (Gole, 2022).
Večer	<ul style="list-style-type: none"> - Drain or brain circulation: how problematic is emigration from Maribor? (Ambrož, 2022). - Establishing the Startups and Scale-ups Section for enterprises: the path to dialogue with government (Sagaj, 2022). - Confrontation of young Maribor parliamentary candidates: how to make access to housing easier, how to prevent brain drain (Knez & Dajčman, 2022).
Dnevnik	<ul style="list-style-type: none"> - Are doctors really leaving Slovenia in droves? (Klipšteter, 2023). - More and more young Slovenians are emigrating to Asia (Dernovšek, 2019). - Crossing the border to find doctors (Šonc, 2022).
24ur.com	<ul style="list-style-type: none"> - Brain drain: How effective is the country? (K., 2023). - Most expats are thinking of returning but want better opportunities (H., 2022). - How to attract talented Slovenians from abroad (K., 2022).

Source: own work.

Young generations, such as the Millennials (or Generation Z), do not put as much emphasis on materialistic values as the previous generations (Ashby, 2023). Furthermore, Millennials, born between 1978 and 1994 have been strongly influenced by the globalization of society and the marketplace (Williams, 2015) and, while scholars see them as confident, socially conscious, respectful towards differences and technologically savvy (Williams, 2015), Generation Z’s (people, born after 1995) attitudes represent an amplification of that of Millennials. As aspirations are empirically defined as forward-looking behaviour (Gardiner & Goedhuys, 2020), they capture the individuals’ beliefs about the opportunities available to them in society as well as their achievement expectations in the uncertain future.

Due to the general demand on the market and our available data, the focus of this master's thesis was narrowed down to science, technology, engineering, and mathematics (hereinafter STEM) students. The purpose of the master's thesis is to fill the gap, existing in the research field, as the Slovenian STEM students' motivations for migration are not researched thoroughly and prepare suggestions for policymakers to diminish the negative trends or capture the positive gains from young highly skilled emigration. With that in mind, I am focusing on students who pursue at least a Bachelor's degree level of studies at one of the Slovenian universities, while I want to capture their thinking in the process of decision-making and focus on their motivations at the stage before leaving the country.

This research tries to achieve the following supplementary objectives:

- To provide a basic overview of the brain drain phenomenon in Slovenian STEM field and its socio-economic relevance.
- To map the emigration of future Slovenian highly skilled labourforce in specific industries with a focus on the most popular countries desired by highly educated Slovenians.
- To identify the reasons for the emigration of highly educated Slovenians to various destinations.
- To determine the importance of non-financial factors of migration in STEM.
- To determine the consequences of the discussed trends and consequently provide possible solutions in regard to mitigating or reversing the brain drain from Slovenia.

I will try to provide the answers to the following research questions:

1. What are the preferences of migration among Slovenians to various destinations?
2. What are the most important reasons for the emigration of highly skilled STEM students to various destinations and what is the difference between their reasons and the reasons of highly skilled non-STEM students?
3. What are the most and least important factors for emigrating abroad?
3. What role do non-financial factors play in driving the emigration of highly skilled Slovenian STEM students abroad?
4. What are the most effective policy solutions that Slovenian institutions or companies can implement to mitigate or reverse the brain drain in STEM?
5. How important are pull factors for highly skilled students from Slovenia to move abroad?

This research work is a result of a deductive research approach as it derives from the established theoretical grounds, discussed in the chapters and tries to apply the findings of established theories to the example of future Slovenian highly skilled STEM (as well as non-STEM) workers. It consists of five chapters, however, four fundamental steps. The first step is the establishment of the theoretical framework and relevant concepts, where the research discusses the work of various authors, discussing brain drain and relevant concepts to the research. The second step of the research includes a discussion of brain drain in the Slovenian context with a focus on the STEM field, by analyzing secondary and collection of primary data, with a focus on Slovenian brain drain in the STEM field. The third step of the

research is an in-depth analysis of the data gathered, uncovering the non-financial and financial factors that drive educated Slovenians abroad. Thereafter the fourth step consists of a provision of relevant policy trends, whilst formulating recommendations for the Slovenian government or institutions to increase cooperation with Slovenians abroad or retain highly educated Slovenians in the country.

The empirical analysis of this research paper is a questionnaire, focusing on students' perceptions of the identified factors of brain drain, from a sample of students of Slovenian universities, who pursue at least a Bachelor's degree of studies. Conclusions are presented in the last chapter of the research paper, while I am aware there are limitations of the scope of the research. Thus, I provide some recommendations for future research as well.

1 BRAIN DRAIN THROUGH INTERNATIONAL MIGRATION

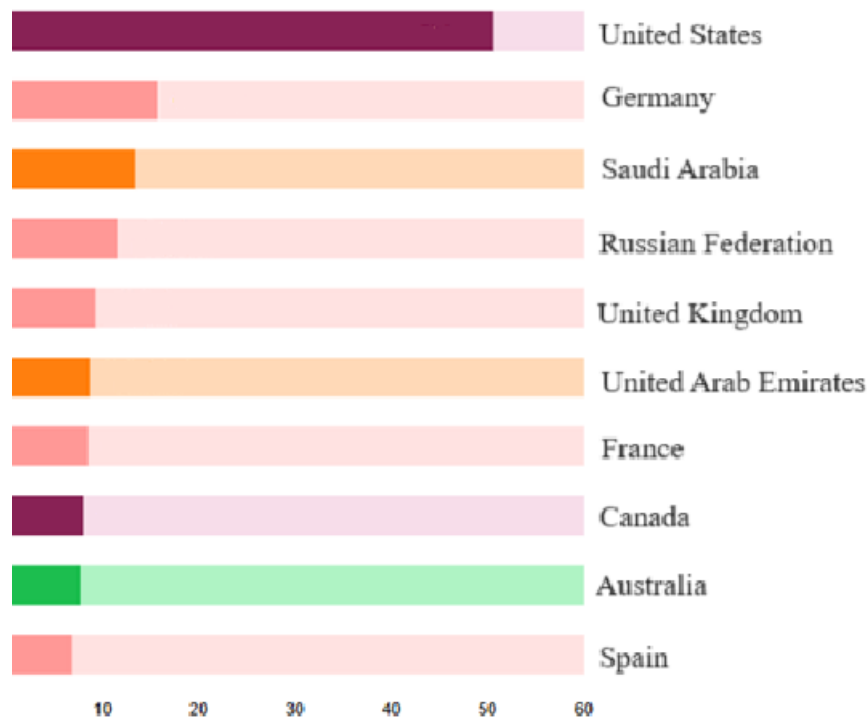
Migration has been part of human history forever: great nations were created by immigrants and emigration has been one solution for people and countries in uncertain times (Maurseth, 2018). The number of international migrants increased from 75 million in 1960 to 190 million in 2005 (Docquier & Rapoport, 2012), while the International Organization for Migration (hereinafter IOM) estimated as high as 281 million international migrants for 2022 (IOM, 2022). The number of international migrants is continuously rising and will, judging by the mentioned trend, continue to do so in the near future.

The number of migrants has been steadily rising for the past 50 years, while the share has during the same time risen by 1.3% to 3.6% of the world's population (UN DESA, 2021). The trend has not changed despite the many economic crises although the researchers (IOM, 2022) assessed 3 million migrants more in 2020 if the global pandemic had not existed.

International migration is classified into three groups – (1) forced migration, which includes refugees or asylum seekers who migrate due to natural disasters or political instability-related reasons; (2) international retirement migration, which includes retired and well-off citizens who have the financial resources to move abroad; and (3) labour migration, which includes highly skilled as well as unskilled, low wage labour and seasonal migration (Bell, Alves, Silveirinha de Oliveira, & Zuin, 2010).

The most developed countries or countries with high GDP per capita, according to the World Bank (2022a) are migrant receivers. As Figure 1 shows, in absolute terms, there is a high number of immigrants to the US on a global scale, with around 50 million migrants in 2020, followed by Germany, Saudi Arabia and Russia, which each received between 10 and 20 million immigrants in 2020.

Figure 1: Top 10 countries of destination, number of migrants (mio), 2020



Adapted from UN DESA (2020).

1.1 Brain drain

The term “brain drain” was composed by the British Royal Society (1963), describing the outflow of technologists, scientists and academics from the United Kingdom (hereinafter UK) to the US and Canada in the middle of the last century. The phenomenon was relatively rare before the second world war, however since then, due to its acceleration with technology advancement, human capital role, and social and political changes, the term has been widely studied and is nowadays used to refer to a group of highly educated international migrants and designates the international transfer of resources in the form of human capital and mainly applies to the migration of relatively highly educated individuals from the developing to the developed countries (Beine, Docquier & Rapoport, 2008). Furthermore, as several authors write, brain drain can be described, not only in the context of the emigration of a highly educated labour force from non-developed to developed countries, but as emigration from low-income and middle-income countries to higher-income countries (Lofters, Slater, Fumakia, & Thulien, 2014). The issue has become a higher priority on the countries’ agenda globally, and through research, one has to be wary of several nuances in interconnected concepts. Most of the contemporary scholars, whilst examining migration of highly educated, emphasize the importance of the brain drain issue, which is becoming a circular process, due to more opportunities for the migrants to cooperate with their country of origin.

1.1.1 Brain drain as brain waste

When migrants work outside of their origin country, but not in their field of education, the evermore appearing issue of “brain waste” appears (Mattoo, Neagu & Özden, 2008), even though the authors (2008) blame low or poorly transferable skills rather than underutilization of them, while it specifies unemployment in the original field of education, in either the origin country or the country of destination (Lowell, 2003, p. 2). Unemployment in the field of education may lead to an individual leaving the country in search of an available position abroad however, there are several issues to consider.

Lofters et al (2014), found significant consequences for the donor countries where the density of the emigrating sector is already low while the demand is high. Furthermore, there is a significant chance of the emigrating workers working in a different field, which suggests underutilization or even non-utilization of their skills. Such employment Pires (2009) sees as a common negative effect of migration and skilled individual subjects themselves to the costs of education but does not reap the benefits of human capital acquisition. World Economic Forum (2017) places the development of the nations’ human capital (the knowledge and skills possessed that enable creating value in the global economic system) as an important determinant of their long-term success. The human capital can dynamically change, growing through use or depreciating through lack of use during people’s lifetimes. Brain waste phenomenon can be relevant specifically among migrants, acquiring international education, as different stimuli can be less appealing, which in turn decreases the possibility of migration and benefits of brain gain. In fact, a skilled migrant can only work as a skilled worker in the destination country if his human capital level is recognized in the destination country. Fortunately, brain waste can be reduced by establishing measures to promote the – abroad acquired – qualifications, on an institutional basis (Pires, 2009).

1.1.2 Brain gain

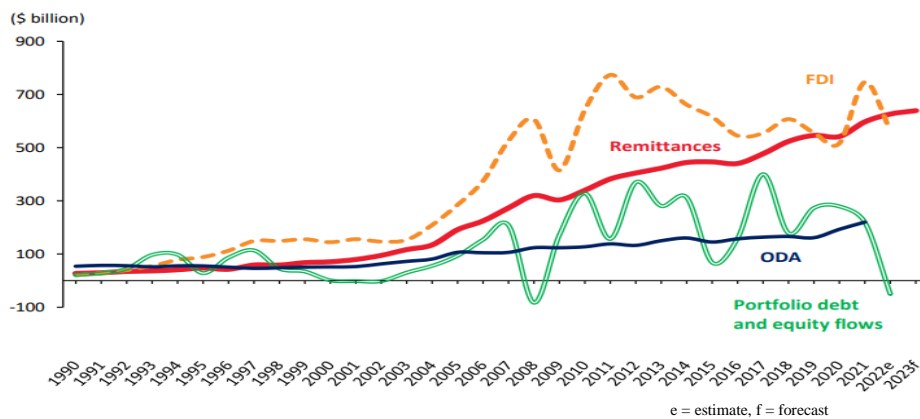
Apart from the obvious negative effects of brain drain, researchers have also investigated a few positive effects of emigration. Beine et al., (2008) discovered highly skilled workers can create a network in the area they work in, while they also acquire additional or new knowledge and skills, the host country requires and send remittances back. Brain gain is defined as an increase in the human capital stock in the sending country, which results from the emigration of highly skilled workers. The reason for this is the perception, that emigration to economically better-developed countries will lead to higher benefits and will furthermore motivate citizens of the origin country to invest in their education. In case brain gain exceeds brain drain, the difference between both is defined as beneficial brain drain. Positive externalities of high-skilled migration Heuer (2011) identifies are remittances, network externalities and return migration, which in effect means, brain gain leads to a “diaspora effect” – an increase in trade, skills and knowledge from the migrants that returned, remittances, and foreign direct investment (hereinafter FDI), (Schiff, 2005). Diasporas play an important role in developing their origin countries by promoting FDI, trade and innovation as well as

financial inclusion and access to technology, while remittances, sent by migrants can help to improve the families and communities' livelihood in the origin countries, according to UN DESA (2021) through investments in education, health, housing and other infrastructure. Social, financial and human capital can all be acquired when migrants work abroad (Horvat, 2004). These sources can be used later, when migrants return to their origin country, helping the origin country's economy with professional cooperation and investments, while less measurable but important brain gain can be acquired when migrants return after they are provided with temporary training opportunities abroad as they may bring new expertise and ideas that may improve standards (Fouad, Fahmy, Abdel Hady, & Elsabagh, 2015).

As Horvat (2004) argues, “the sending countries” should stimulate the highly skilled labour force to become a part of the brain gain process rather than ensuring they do not leave the country by preventing brain drain itself.

Figure 2 represents flows of FDI and portfolio, remittances and official development assistance flows to low-and middle-income countries. The trend line of remittance flows has been rising since the beginning of the 21st century with only a few surges around the years of global economic crises in 2009, 2016 and during the pandemic due to the global closures of businesses, a surge of the economy overall and a surge of migration due to the border closures.

Figure 2: Remittances, FDI, portfolio flows, official development assistance flows to low- and middle-income countries, 1990–2023f



Adapted from KNOMAD (2022a).

As Bhardwaj & Sharma (2022, p. 2) argue, it is unwise to rely just on economic measures to prevent brain drain, when a national-level environment, adequate rules, strong property rights, and research infrastructure may all play important roles (Zweig, Tsai, & Singh, 2021). Economic measures are thus not the only factor, influencing labour-related migrations. Developing countries such as India and China are adding and improving the benefits for the highly educated, such as the transfer of technology, remittances and network building for

knowledge sharing, while a deeper and inclusive understanding of the drivers and the outcomes of skilled migration is needed (Bhardway & Sharma, 2022).

1.1.3 Brain circulation

For their countries of origin, mobile students might be viewed as lost talent, however, they can contribute to knowledge absorption, technology upgrading and capacity building in their home country, if they return after their studies or maintain links with nationals at home. They gain indirect knowledge shared through personal interactions and can help their home country to integrate into global knowledge networks (OECD, 2022b). Davenport (2004) argues, that the term “brain circulation” has evolved as an important competitive skill in globalised companies. That made brain drain no longer uni-directional and encouraged discussions for benefits of emigrating the labour force even to origin countries, while according to Lofters et al. (2014) suggest only a temporary loss of migrating labour force, which returns to the origin country after some time. The return to their countries and participation in the process of democratic transition in at least some form is needed for social and economic development continuation (Horvat, 2004). Thus, attraction or cooperation policies with emigrants should be encouraged.

Many measures exist to achieve brain circulation either attracting the emigrants back to their home country, attracting foreign experts, encouraging the cooperation of the emigrants’ home country as well as intentional encouragement of citizens to study or work abroad with a purpose to bring more knowledge to the home country. Even though there is no unified definition of brain circulation Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al. (2022, p. 6) emphasize its goal that the country of origin retains the knowledge of its citizens, while the importance of expert circulation is especially relevant in retaining a long(er) lasting cooperation with emigrated experts among others (Klinar, 1993, p. 649). The emigrant’s country needs to keep in touch with its emigrants since nowadays not every emigrant is lost to his society of origin (Klinar, 1993, p. 649). That is one of the most important responsibilities of the country to keep an option of circulating labour force and diminish human capital losses.

1.2 Push and pull factors of brain drain

While brain drain might be seen as an irreversible loss of talent, a one-way process from the sending, country of origin and a permanent brain gain for the receiving country, the motives for migration are many. According to Klinar (1976, pp. 27-30), they are mostly of three types: economic and demographic, political and military, and family and personal. A tentative list of factors for migration Adams (1968, pp. 6-8) mentions, is generally classified into factors that create attraction of the developed country (pull factors) or the dissatisfaction with the developing country (push factors). As he suggests, these depend on several different conditions such as salary differentials between the countries, professional opportunities offered, lack of receptivity to change in the home country, the relevance of the training,

technology gap, discrimination on non-economic grounds, monopolistic restrictions in advanced countries or political fragmentation (Adams, 1968) i.e. division of a multinational state into smaller ethnically homogeneous entities. Brain drain is generally associated with pull factors and appears when leading typically to severe negative consequences for the economies of the countries of origin (Lee, 1966). Nevertheless, push and pull factors are both important to consider when analysing the reasons for migrations of young, educated cadres abroad.

While there are many different reasons for migration, according to Massey, Arango, Hugo, Kouaouci, & Pellegrino (1999), push factors normally suggest poor(er) conditions in the home country (such as unemployment, low wages, lack of career development opportunities, political conflict etc.) while good or at least neutral conditions in the potential host economy can work as pull factors. Generally, economic, political and social conditions are usually cited as push factors, pushing students to leave their origin country (Altbach, 2004). As for the Slovenian context, one has to keep in mind, as Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al. (2022) suggest, motives of a socio-psychological nature are important, as Slovenian workers value good relations and positive relationships at work, while other push factors include political reasons, such as corruption issues, political instability or violation of human rights and environmental factors which refer to the influence of natural disasters, climate change or similar.

Pull factors, however, depend on the host country. Wealthier countries can try to incentivise the desired profiles if there is a need for them, where incentives include higher wages, better job prospects and better working conditions, and social factors, which refer to the quality of life in a country, taking into account education, healthcare and social services. Students from some countries study abroad to escape political repression at home or to gain academic freedom (Altbach, 2004). Differences among the countries are visible even among the member states of the European Union (hereinafter EU) and a different political model can be more or less appealing to individuals, while political reasons can serve as both, push or pull factors when moving abroad.

Moving abroad, several gains can be acquired and according to Kline (2003), the past researchers have been focusing on the economic, political and social variables to identify the facilitators of migration. Neoclassical macroeconomic theory claims, that human capital is influenced by wage disparities, which are the primary reason for the cross-border migrations (Massey et al., 1993). And, while several studies as well as concrete data have confirmed labour force that originates in poorer countries tends to migrate to countries, where they expect higher gains, two other theories exist. So-called neoclassical microeconomic theory suggests that individual, micro-level elements, such as better remuneration, earnings, and employment are major factors, driving cross-border migration, while an individual's cost-benefit analysis that indicates a profit, is a key factor (Massey et al., 1993). The theory suggests migration out of expectations of higher compensation, better income or salary.

Nevertheless, this theory was confronted with a theory of new economies of migration. This theory suggests household and family factors are the main drivers of migration and confronts the neoclassical theory on several occasions, while it suggests a collective decision to migrate is made by a group of related individuals (households or families) to not only maximize the profit but to reduce non-labour market-related risks as well (Massey et al., 1993). The decision is made to ensure a better quality of life, prospects and opportunities for family members or provide better intellectual stimulation or training (Gibson & McKenzie, 2011). Nevertheless, the perception of safety at the workplace, political stability, quality of life and living standards, working environment and working conditions, advancement of technological equipment at work, economic development and stability as well as welfare states and security, all contribute to cross-border migration significantly (Zweig et al., 2021; Kline, 2003 & Astor et al., 2005). Dohlman et al., (2019), hypothesized that Maslow’s hierarchy of human needs is a useful framework for collecting data on physician motivations to migrate when researching motives for their migration. As they establish, Maslow believed “human needs fall into five categories, that the needs in the lower categories are stronger drivers of motivation than higher ones, and that they must be at least partly satisfied before a person will be motivated to work towards the higher categories” (Dohlman et al., 2019, p. 2). The categories, presented in Figure 3, were physiological needs, safety needs, needs of social belonging, esteem needs, and self-actualization.

Figure 3: Maslow’s theory of needs pyramid



Adapted from Dohlman et al. (2019, p. 3).

Threats to one’s ability to satisfy their needs as presented can raise the risks inherent with staying in a given location to surpass the risks of migrating, therefore, migrating to a new location may be in one’s best interest (Johnson, 2016). High-income, high-resource countries in North America, Australia and Western Europe actively benefited from the highly educated workers from low-resource countries, without the need to subsidize their complete education (Dohlman et al., 2019), however, even in low and middle-income countries, physician’s

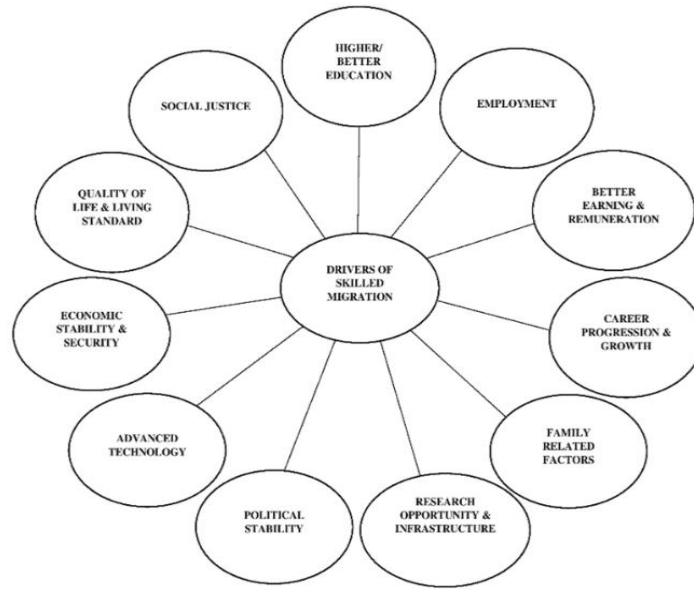
salary sufficiently provides for the basic needs of food and shelter, which implies the reasons for migrations of physicians are unlikely lower level needs, unless they are in an active war or refugee situation. The presented typology should thus be valid only in peaceful times.

Complexity in the improvement of the physical safety of physicians is intertwined with the socio-political situation of countries and cannot be dealt with easily. Several authors (de Silva et al., 2014; Kizito et al., 2015) studied the effect of financial security on emigration as traditionally an increase in income potential has been assumed to be the primary driver of brain drain, above a certain threshold the financial factor is removed as the most important decision to migrate, while in more prosperous countries financial stimuli have a lower impact to the contrast of professional development opportunities (Dohlman et al., 2019).

In geopolitically stable middle-income countries the lack of training and professional opportunities, once their basic needs of financial security and financial safety are met, become more important, as well as the satisfaction of their higher level-needs for self-esteem and self-actualization through their engagement at the workplace, offering professional development or advancement as well as research opportunities (Fouad et al., 2015; Astor et al., 2005). The two lower levels are thus considered important from the perspective of financial factors. Furthermore, researchers did not find a frequent mention of social belonging to be a frequent factor of migration, as it appeared only, when the relatives were present in the destination country (Dohlman et al., 2019). That implies, the wish to stay abroad due to improved income, resources, and opportunities remains high. On the contrary Dohlman et al., (2019) argue, the effective prevention of brain drain should address the next level needs where highly educated fulfil their financial needs, – better education and professional opportunities – while the financial incentives in those cases are not considered primary drivers.

Differences exist in earnings in cross-country comparisons among the OECD countries, nevertheless, the combined STEM field professions are most commonly associated with the highest earnings. This suggests people with STEM field education prosper. Maslow's hierarchy of needs states that when higher-order motivational needs like self-actualization and self-esteem are satisfied, people thrive (Maslow, 1958). Therefore, even if individuals have a sufficient amount of income and employment in their origin country, they may nevertheless emigrate to meet their higher-order needs. Furthermore, as the workers in the STEM field are generally well equipped and perceived well paid, self-fulfilment, family and social values become a higher priority to the migrating individuals. Beyond economic issues such as salary and earnings Maslow's hierarchy of needs classifies income and earning needs as lower-order needs. People may, however, leave their home nation to satisfy higher-order desires, such as self-esteem or self-actualization. All the listed drivers are presented in Figure 4.

Figure 4: Drivers of skilled migration



Source: Bhardway & Sharma (2022).

Environmental pollution, air quality and diminished ecosystem vitality gain importance towards brain drain from the source countries (Li, Cheng, & Xiao, 2020). As the goal of limiting the temperature rise to 1.5 degrees Celsius is not likely to be achieved (Mooney et al., 2022), scholars (Li et al., 2020) consider environmental changes as increasing the importance of migration and as such should be included in this research as well. Naturally, numerous factors are interconnected, but in general may be divided as drivers of macroeconomic, political, social, technological and environmental nature, as presented in Table 2.

Table 2: Push and pull factors – classification

Factors category	Push factors	Pull factors
Macroeconomic	Poverty, lack of employment opportunities	More employment opportunities, higher income
Social	Low quality of education, relatively worse quality of life	Good quality of education, government safety net, better quality of life
Political	Corruption, political instability etc.	Lower level of corruption, political freedom
Technological	Underdeveloped infrastructure, old technology at the workplace	Advanced technology infrastructure
Environmental	Natural disasters, bad water quality, air pollution	Good quality of air and water, natural disaster protection

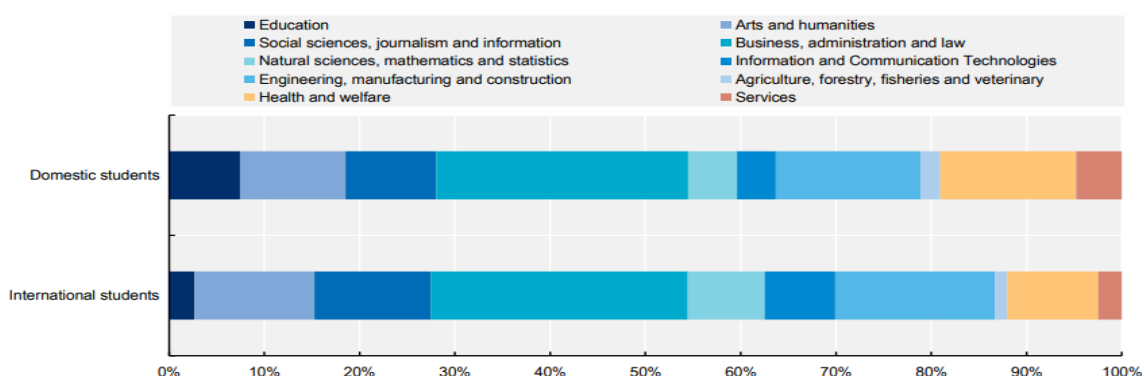
Source: own work.

1.3 Brain drain in the STEM field

The number of students overseas can be a good predictor of future scientist flows in the opposite direction, providing evidence of the movement of skilled labour across nations. Their mobility shapes international scientific cooperation networks more deeply than either a common language or scientific proximity (OECD, 2022b). The latter suggests relevance to studying student flows, when in need of a forecast of the future labour force structures, for both – a lack or a surplus of the cadre. Skills shortages are at the upper levels of the rich economies especially in the STEM field professions (Altbach, 2013). One of the solutions he suggests is to attract international students from developing and middle-income countries after they complete their degrees. That, however, hurts the countries of origin of the mentioned migrants. The Organisation for economic cooperation and development (hereinafter OECD) (2017) already noted a substantial percentage of internationally mobile highly skilled students, where especially Sweden, Finland and Norway have attracted substantial numbers of students in fields, that the OECD classifies as ICT, engineering, manufacturing and construction and natural sciences, mathematics and statistics.

Globally, there are profiles of all spectrums, being educated outside their origin country, however, as Figure 5 shows, there is a noticeable difference in the share of individuals studying abroad for the STEM areas of study. Migration is in question in extreme numbers especially in the STEM field, as it commences already amid the education process. As Figure 5 shows, in most OECD countries, international students are somewhat more likely to study one of the STEM subjects or Information and Communication Technologies, while they are simultaneously less likely to be a part of studies in education, health and welfare, as shown. According to the OECD (2022a) 31% of all mobile students in the tertiary cycle of education, are enrolled in one of the STEM programmes, while only 23% of them are domestic.

Figure 5: Domestic & international students by field of study, %, OECD total, 2020



Source: OECD (2022a).

Nevertheless, there are differences across the countries, which can be observed in the supplementary material (Appendix 1). In Norway, Sweden and Iceland, the possibility that

international students will be enrolled in natural sciences, mathematics and statistics is three times higher than for domestic students. There are similarities in the popularity of STEM subjects among international students, indicating certain nations' overrepresentation (e.g. Indian students in engineering) (OECD, 2022d). In Germany, for example, the groups with the largest share of international students, predominantly study engineering and consisted of 66% Indian, 61% Syrian and 50% Chinese students that enrolled in 2021, while in France the concentration of Indian students in a science course in 2021 was higher than that of any other top-20 origin country in France (OECD, 2022d).

STEM jobs have a significant effect on the economy of the US as an average STEM worker earns more than a worker not employed in the STEM field while generating 69% of the country's GDP and employing about two-thirds of the US' labour force (JOBS, 2020). STEM workers substantially contribute to economic growth while the country's GDP growth is found higher the more STEM graduates there are in the country (Podobnik et al., 2020). As today's economies are becoming knowledge-based, technology-driven and globalised—and due to the uncertainty of the future labour market—a diversified pool of different kinds of skills is needed, technology being a component in most of the new jobs in the future, while skills related to STEM will be in high demand in the following years (World Economic Forum, 2016).

A tertiary degree yields better earnings, but there are substantial differences across fields of study. As mentioned before, STEM field professions are most commonly associated with the highest earnings (OECD, 2022b). According to the European Commission (n.d.), there are several differences among the member states of the EU, as countries belong to groups of Innovation leaders, Strong innovators, Moderate innovators and Emerging innovators. And while Slovenia lacks in the areas of Intellectual assets, sales impact, digitalisation, finance and support, and environmental sustainability categories, countries, such as Finland, Sweden and Denmark, as innovation leaders, can provide excellent results in almost all of the categories. Worrying is the information about a continuous strong decrease in Doctorate graduates since 2015 (European Commission, n.d.), suggesting Slovenia needs different attraction techniques for highly skilled workers to fill possible PhD required future open positions.

Regarding the reasons for emigration of the labour force in the STEM field, I believe all of the beforementioned factors (Bhardway & Sharma, 2022, p. 7) play a role in migration decisions. Nevertheless, even though the STEM field workers generally perceive their field's profession as one with the highest earnings (OECD, 2022b) it is unimaginably tough for poorer countries such as India, China and Syria, to compete for their highly skilled workers with the leading global economies. That is the reason why I believe it is important to switch the focus to different areas. Based on the European Commission (n.d.) one of them is technological advancement, which includes the equipment of the working place as well as possible knowledge transfer and quality of work, which includes career progression as well.

Robertson (2006) argues, that brain drain has become an important political and economic issue, if not even controversial, as the brains of politicians are the drivers for the country's competitive edge. As brain drain includes a great part of the STEM migrants, political stability and other politics-related factors may apply to the STEM area as well.

2 BRAIN DRAIN PROBLEM IN SLOVENIA

Migrants can boost trade in their host economy through various channels. As evidence from many countries has shown migration networks are associated with larger trade flows (OECD, 2022c). Export of goods is according to them connected with migration flows, as migrants contribute to the internationalisation of their host economy by promoting trade flows of their host economy and boosting total imports and exports of their host region.

Larger marginal effects on trade flows exist for migrants with a university degree of above as highly skilled migrants might bring new and different skills to their host region which can complement the production, particularly in high-value, knowledge-intensive sectors, making firms more productive and competitive in trade (Nathan & Lee, 2013). Furthermore, a causal positive relationship between migration and international trade was discovered, as a 10% increase in the stock of immigrants can boost trade by an estimated 1.5% on average in the study, while almost no studies have found a negative impact Genç (2014). We will call this exchange a trade of goods between "partner countries".

Partner countries are in this research paper not meant specifically but rather defined broadly as countries, sharing a combination of political linkages and alliances, economic cooperation and the historical practices of migration.

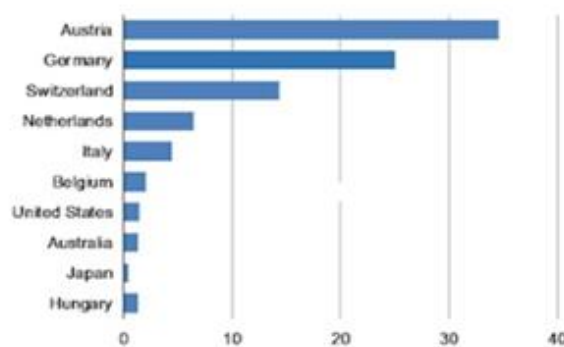
The new trade theory in the 1980s/90s which expanded the neoclassical theory, cast a new light on the relationship between trade and migration (Schmieg, 2019). Certainly, technological differences – rather than differences in factor endowment – are considered the basis of trade, while trade and migration can have complementary effects (Schmieg, 2019). In this regard, trade means contact between people, whilst exchanging information, which facilitates migration. Aspects of contact and created ties can be intensified by expanding trade relations, which leads to economic change in added or lost sectors, further increasing the desire of people to follow new sources of employment (Schmieg, 2019).

Export of goods from Slovenia presents the highest values to Germany (6758 mio USD), Switzerland (4545 mio USD), Italy (3491 mio USD), Croatia (3003 mio USD), and Austria (2390 mio USD) (World Bank, 2023a). Such data shows clear dominance of Slovenia is generally oriented towards trading inside Europe with geographically close countries. As the trade of goods encourages mobility of the labour force as well, it is safe to assume Slovenian migrants, that migrate due to work-related reasons choose these countries as their destination.

2.1 Migration in and out of Slovenia

Horvat (2004) argues, that Slovenia is a clear example of a transition country with a consolidated democracy and a market economy that does not experience intensive brain drain, while standards in Slovenia are a “pull” factor. The findings suggest two points. First; Slovenia is supposed to be a pull country for poorer, developing economies and second; Slovenians generally migrate due to pull reasons abroad, suggesting streaming for a better life due to the forces of attraction of the host country rather than the reasons of emigration being in the bad conditions in the origin country. Figure 6 shows the share of Slovenian migrants that chose one of the member countries of the OECD as their destination. More than every second person chose either Germany or Austria, which are the most popular countries among Slovenian migrants, based on the shown figure, while the most notable destinations that follow are Switzerland, the Netherlands and Italy.

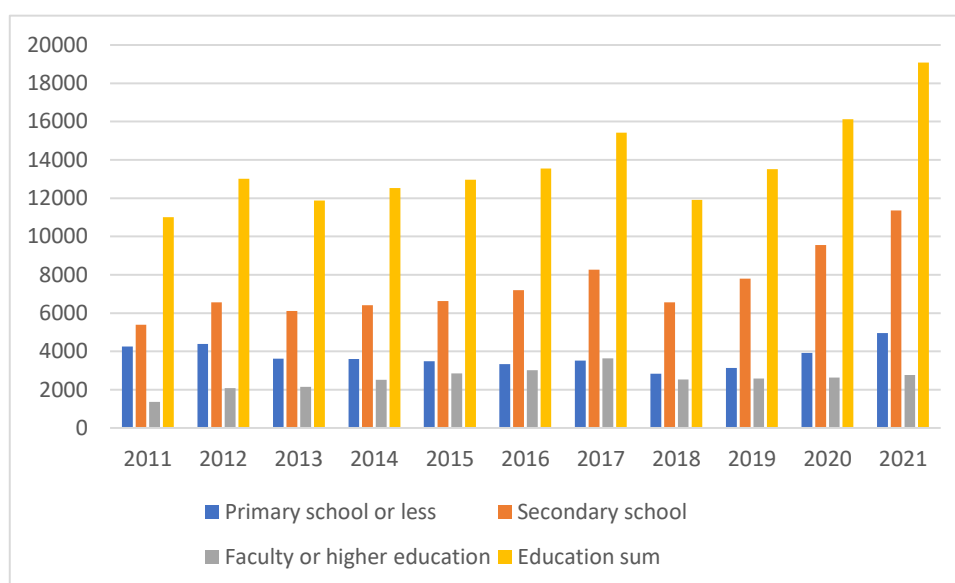
Figure 6: Emigration of Slovenes to OECD Countries, 2020 (%)



Source: OECD (2022d).

People of various educational backgrounds emigrate from Slovenia even though Slovenia is considered a developed and high-income economy (UN DESA, 2014; World Bank, 2022b), we have to consider the structure of the emigrating part of the society. Considering the emigration structure of Slovenians, the data presented in Figure 7 shows a trend over the past 10 years, ever since the Slovenian Statistical Office of Slovenia (hereinafter SURS) started to measure emigration. Throughout the decade, there has been a noticeable rise in emigrants, since the number of emigrants has almost doubled in 10 years. Emigration is and has always been the most popular decision among individuals with finished secondary school however, there has been a noticeable rise of highly educated emigrants, from 2014 until 2018, when the share of emigrants with acquired higher education was higher than 20% of all Slovenian emigrants.

Figure 7: Slovenian emigrants by acquired education, at least 15 years old, 2011-2021



Source: SURS (2022b).

Table 3 shows a rising trend of migrants to Slovenia and Slovenians migrating abroad. There are generally more newcomers in comparison with people who decide to leave Slovenia as Horvat already established. Despite the global pandemic, which has influenced migrations by mostly physically disallowing potential migrants to move (IOM, 2022), the number of Slovenians moving abroad has been every year but in 2013 and 2018.

Table 3: Migration in and out of Slovenia, total, 2012-2021

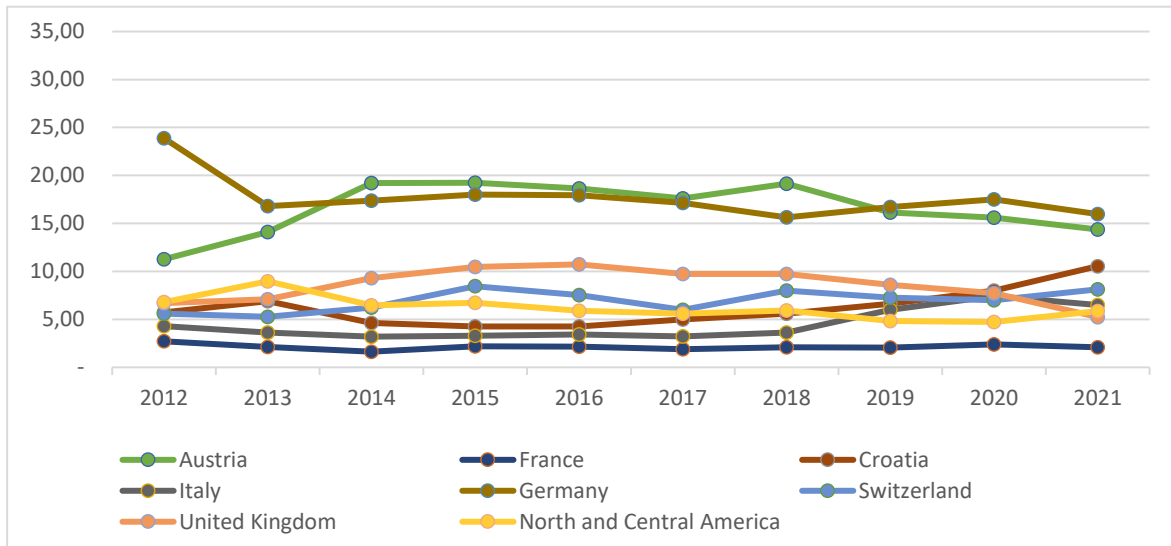
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Immigrants from abroad	15022	13871	13846	15420	16623	18808	28455	31319	36110	23624
Emigrants to abroad	14378	13384	14336	14913	15572	17555	13527	15106	17745	21144
Net migration from abroad	644	487	-490	507	1051	1253	14928	16213	18365	2480

Source: SURS (2022b).

The beforementioned indicates the analysis of educational background is necessary. Figure 8 represents the share of emigrants with at least higher education obtained and of Slovenian citizenship by the country of their next residence, where the representation in the graph is based on the yearly emigration number, thus the share represents the percentage of emigrants to certain countries. Looking at the data of highly educated Slovenians, presented in Figure 8, their clear preferential destinations are Austria and Germany, with the UK falling in popularity among the highly educated and Croatia as well as Switzerland slightly rising in

popularity. The trend lines suggest Slovenians seek different countries for various reasons, nevertheless, the trend of migration is easier shown via the measurement of migrant remittances.

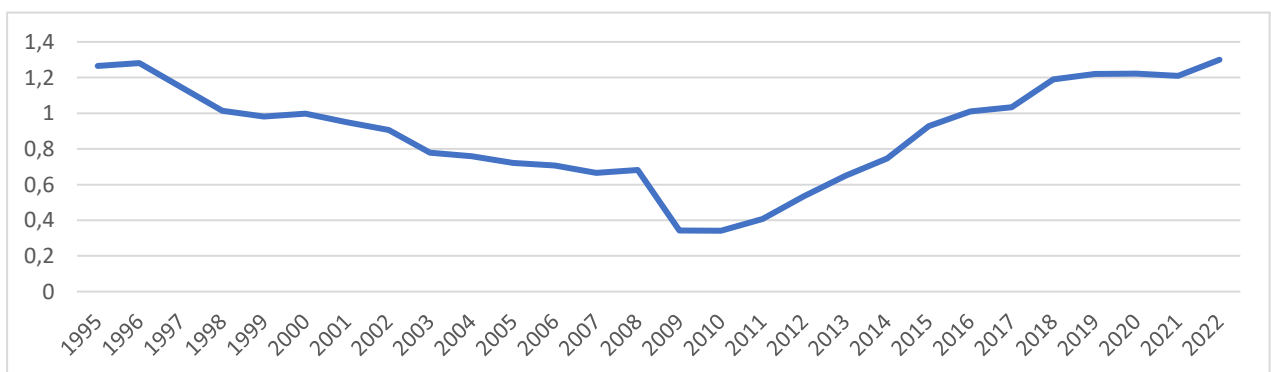
Figure 8: Highly educated emigrants of Slovenian nationality, country of next residence, % 2012-2021



Adapted from SURS (2022c).

As Straubhaar & Vădean (2006) suggest, migrant remittances are an important source of income, since they are a steadily growing external source of capital for developing countries, while their importance in compensating the human capital loss through migration was recognised already at the beginning of 1980s. Figure 9 represents a trend of migrant remittances received on behalf of Slovenia, as a percentage of GDP. The trend line shows a constant growth of remittances since 2009, which suggests more and more Slovenians work abroad as the EU makes the bureaucratic processes much easier.

Figure 9: Migrant remittances received, Slovenia, percentage of GDP, 1995-2022



Source: World Bank (2022a); KNOMAD (2022b).

Indeed, according to the World Bank's (2022a) data, migrant remittance inflows in Slovenia have been steadily rising since its start of the measurement in 1992, with a noticeable drop in the value of remittances only in 2009 after the crisis and have in 2022 reached the value of 800 million USD,¹ which represented 1.3% of Slovenia's GDP in 2022. Specifically for Slovenia, migration numbers of highly educated citizens might be worrying, since SURS notes yearly changes in migrations and according to them (2022), more than 2000 highly educated emigrants left the country each year since 2012 (SURS started collecting the data of the level of education in 2011), while they have represented a considerable share of all emigrants, with the average share they represented in years from 2011 until 2021 as 19.3%.

2.2 Emigration of Slovenian STEM labour force

As human capital in the STEM field is especially vulnerable to the brain drain, Dolenc, Šorgo & Ploj Vrtič (2021) argue, there is a high chance of a shortage of teachers of lower secondary science and technical sciences and technology, where they identify brain drain as one of the main issues needed to deal with, to prevent the high shortage of STEM workers in the country. Furthermore, according to the Employment Service of the Republic of Slovenia (hereinafter ESS) (2022), there is a high demand for highly educated workers in STEM fields (such as electrotechnology engineer and engineer of electronics, construction and mechanical engineer, programmer and worker in IT, financial analytic, etc.) Furthermore ESS (n.d.) has in the previous years since 2008 continuously posted several hundreds of employment opportunities in the field of professional, scientific and technical activity per year, suggesting that there is constant high demand for these educational profiles inside the country. State media journalist Hacler (2015) even writes about the lack of engineers in Slovenia one of the reasons was a predominant opinion of needed skills in finance and sales and while that certainly is important as well, the change has caused an even larger shortage of workforce in engineering. This was accelerated to the point that, according to the journalist of the popular news portal 24ur.com, Kranjc (2023), due to the ageing of the population, there will be a shortage of 1200 engineers, which is around 20% of all engineers employed in Slovenia, already in five years.

The problem of the brain drain of Slovenians, working in the STEM field, is an important topic that has not been researched enough, furthermore, the established research is more or less focused on the financial motives of migrants, where Slovenia cannot compete with much richer western economies. Not only that, but as Murakami (2009) emphasizes in the example of foreign workers in the field of science and technology, key incentives for migration are not financial, but the country's high level of science and technology, opportunities to acquire cutting-edge knowledge, prospects for improving performance in an environment with large budgets, superior equipment and facilities and good quality human resources, while the

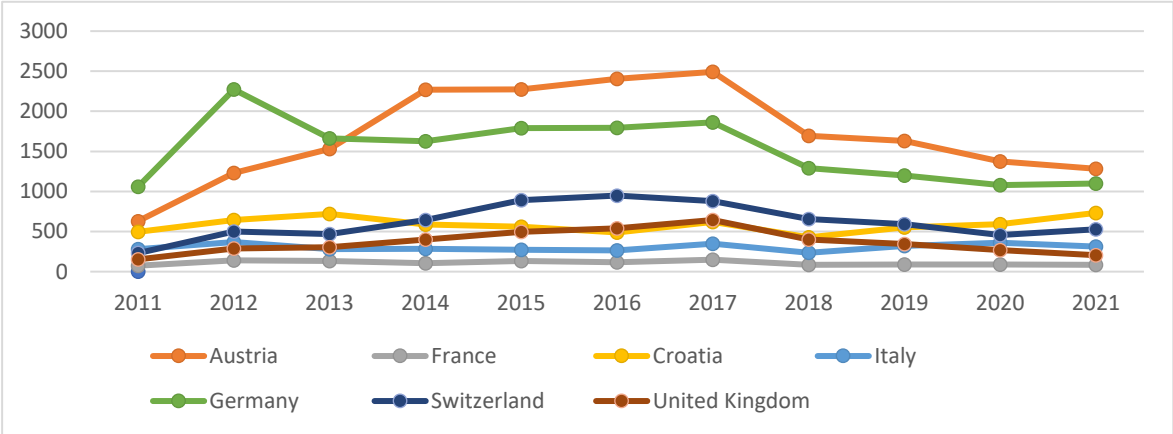
¹ The presented data was at the time of writing updated in november 2022, thus does not include the whole year 2022.

mentioned incentives are especially attractive among the workers from the countries with a technological gap of a significant value. Incentives of learning a perspective language, building a professional network or getting familiar with a specific culture can be just a few of the possible incentives of the Slovenian highly educated citizens to move abroad.

2.2.1 Push and pull factors of Slovenian emigration

There are several factors as social political and economic conditions can include lack of access to education and jobs, as well as concerns about political repression and academic freedom (Altbach, 2004). As Figure 10 shows, only partial reflection is seen of the written above; Germany, Austria, Switzerland, Italy and Croatia are the most popular countries for Slovenian emigrants as shown. An odd country in the figure presented is the UK, where around 5000 Slovenians are located (Urad Vlade Republike Slovenije za Slovence v zamejstvu in po svetu, 2022).

Figure 10: Slovenian emigrants by country of destination, chosen countries, 2011-2021



Adapted from SURS (2022a).

2.2.1.1 Political factors (corruption and political stability)

The corruption perception index (hereinafter CPI) is a valuable tool for the estimation of corruption in the country. The index indicates a snapshot of the degree of precepted corruption in the public sector of a specific country. Slovenia was, according to Transparency International (2023) ranked 41 out of 180 countries and reached a score of 57 out of 100, where more points indicate less corruption. Rating suggests a shared score in corruption with Italy, Georgia and the Czech Republic, scoring worse than Qatar, Latvia and Spain. Table 4 shows Slovenian CPI since 2012. In the last decade, Slovenian score worsened, as shown in Table 4 last year Slovenia had 5 points less than in 2012, which means it deteriorated by 4 in rank.

Table 4: Corruption Perception Index of Slovenia, 2012-2022

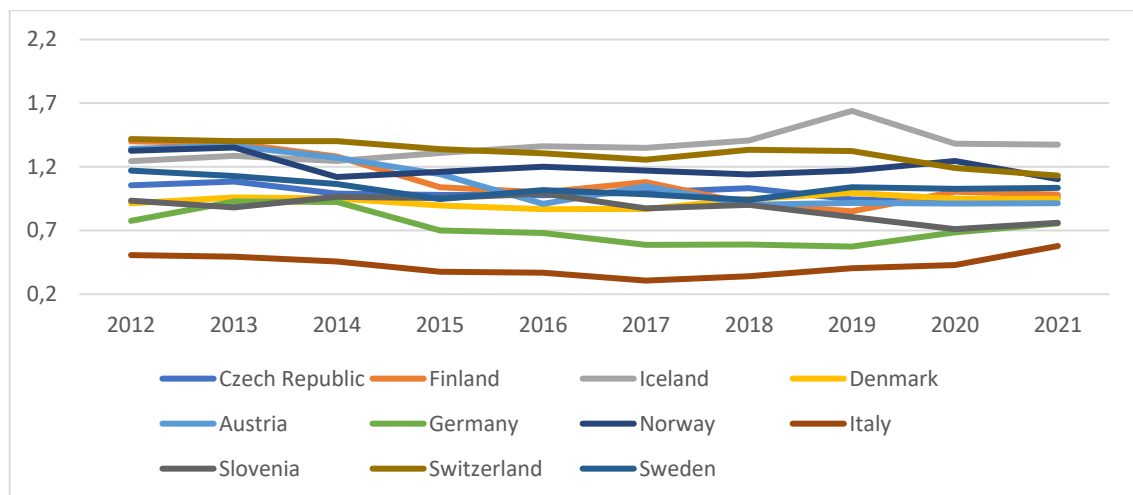
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Score	61	57	58	60	61	61	60	60	60	57	56

Source: Transparency International (2023).

According to Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al. (2022, p. 201) nepotism, clientelism and corruption have affected the respondents as push factors and several conditions should be improved for them, to return to Slovenia, thus investigation of these factors is needed, when analysing looking for reasons of brain drain of Slovenian workers and even more so, when they represent a lot of human capital, potentially lost to another less politically corrupt country.

Corruption can affect the political stability of a country as well. Slovenia is a relatively politically stable country as Figure 11 shows a trend of the dark grey line in the middle (representing Slovenia) without any major turbulences. As expected it achieves political stability results, similar to other European countries, while Germany and Italy come on the list of chosen countries with lower trend lines, while Switzerland and the Nordic countries show extremely stable state politics.

Figure 11: Political stability and absence of violence/terrorism (est), 2012-2020



Adapted from World Bank (2023b).

Political instability is typically a direct consequence of war, migrants are most commonly asylum seekers of any education, fleeing the countries due to certain characteristics may it be of ethnic, cultural, political opinion, or religious nature. Thus, the brain drain effect is relevant in connection to political stability as well, furthermore, as OECD (2022a) writes, political stability is a factor, sometimes causing students to migrate to other countries, while it pushes more and more Sub-Saharan and North African migrants to embark journeys as

refugees of war (KNOMAD, 2018). Nevertheless, not only refugees are affected. Frustrations can be caused as physiological, safety and economic needs still dominate as the reasons migrants migrate, and mass migration is more likely to originate from a country with an underperforming economy (indicated by the low GDP per capita), and high level of corruption (indicated by the Corruption Perception Index) (Johnson, 2016). The situational improvement between the country of origin and the country of destination doesn't need to be large, furthermore, the migrants do not necessarily settle in the location that offers the highest income or safest environment. The latter can in the Slovenian example be achieved relatively easily since its establishment of the Schengen area.

Unsuitable political situation or the political direction to which a certain country is moving in economies differ as do their approaches to the progress of liberal democracy. Thus, there have been several democracies (among European countries in recent years Hungary and Poland specifically), restricting individual's rights and/or making constitutional changes for their gains in the process of democratic backsliding. It can urge individuals to migrate from their origin country and work as a push factor. Poland has in the last decade undergone several legislative changes which have caused some disturbances at the EU level as well as the national level, as fear arose, Poland would undermine judicial independence and "lead to a complete subjugation of the judicial system to the ruling party" (Koponen, 2017). Laws were introduced, restricting journalist investigations against the authorities and prison sentences were introduced (such as a possibility of a two-year prison term upon a journalist investigation of organised crime via an accusation of "insulting a constitutional authority") which are worrisome elements for Polish population as several protests erupted in Warsaw (Koponen, 2017). Similarly, migrations due to different political opinions have been researched after the 2016 Brexit, as several scholars from the UK have disagreed with the agreed-upon decision to leave the EU. Scholars (Şanlıtürk, Aref, Zagheni, & Billari, 2022) discovered, after the Brexit decision was put in place, non-UK researchers' probability of leaving the UK increased by more than 80% while it decreased for the UK scholars by around 14%, furthermore, probability of the UK scholars moving back to their origin country (UK) increased by 65%.

2.2.1.2 Social and work-related factors

Socio-cultural reasons are often reported as reasons, why Slovenian workers decided to leave the country. In recent research, they mention cultural differences as the individuals who feel that they do not fit in with the prevailing culture or values of their home country anymore, may be more likely to leave and seek a more comfortable environment elsewhere (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022).

As indicated before, the pursuit of social justice affects migration – e.g. people with work experience from outside might have problems adapting back to the values and culture of their home country (Zweig et al., 2021). This effect is seen as lesser tolerance towards home corruption as well as nepotism. Furthermore, cultural values work as an obstacle, when

migrants experience another culture, as Slovenian workers state nepotism and outstanding behaviour as the reason they do not want to return home (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022). Simultaneously, a lack of promotion opportunities and personal development is mentioned, in the AI field where Slovenia does not offer a profession, that would match workers' profiles (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022, p. 223). Nevertheless, as ESS (n.d.) has in the previous years since 2008 continuously posted several hundreds of employment opportunities in the field of professional, scientific and technical activity per year, suggesting that there is constant high demand for STEM profiles inside the country to the point that shortage is threatening.

Quality of education varies across countries, as educated workers desire to further pursue their educational attainment, quality of education, provided in a specific country can be a decisive factor regarding migrations as well, as talented individuals may not receive the education and training they need to pursue their chosen careers in their country of origin, leading them to seek opportunities abroad. As advantages of living in Slovenia, scholars especially emphasize quality of life and free education (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022).

Social factors include an individual's care for the quality of life and education, as well as care for family members and their future. The extent of the welfare state and quality of education are all relevant factors here. OECD has published a Well-being Framework publication, which charts whether life is getting better for people. It provides key statistics on whether life is getting better for people living in OECD countries thus several dimensions of this report are relevant to this research, establishing a Better Life Index as an index that can be compared with other countries. Slovenia performs well among several well-being dimensions relative to other countries in the Better Life Index and even outperforms the average in education, safety and social connections which are all relevant migration factors. Nevertheless, the Life satisfaction index, which measures how Slovenians evaluate their life as a whole, where the respondents were asked to evaluate their life satisfaction with a grade from 0 to 10, gave a below-average 6.5, where the OECD average reached 6.7 points. (OECD, 2020). The mentioned "Better life Index" also includes an environmental variable, where Slovenia is evaluated by the quality of water and air pollution. As 93% of Slovenians were satisfied with the water quality, which placed Slovenia as a rank 7 country by water quality among the 41 respondents Slovenia reached rank 30 when air pollution in the country was measured, reaching 17 micrograms of particulate matter that can be inhaled into the lung and reduce life expectancy per cubic meter in comparison with OECD average of 14 micrograms and annual guideline limit of 10 micrograms per cubic meter, recommended by the World Health Organization (hereinafter WHO) (European Environment Agency, 2021).

2.2.1.3 Unemployment rate

The unemployment rate rose from 2008 to 2013 to almost 11% of the active population, however, it has been dropping ever since 2013 with only a slight spike in 2020 due to the

restrictions amid the global epidemic. The last unemployment measure of Slovenia's unemployment showed around 4.3% of the active population as unemployed, while the female population has generally reached a higher percentage of unemployability at almost every measured interval. The unemployment rate has been rising until 2013, when it reached its peak at just above 10%, however since then it has been steadily falling until the last available data. It reached around 4% on average in 2022 (SURS, 2022c).

2.2.1.4 Technological factors

Knowledge workers are the main contributors to knowledge creation. The latter, i.e. science, technology and innovation, is a central driver of economic growth (Maurseth, 2019). Nevertheless, superior technology as a part of the working environment can affect knowledge as a factor of migration (Astor et al., 2005), especially in the STEM field. A digital competitiveness rating that measures the capacity and readiness of economies to adopt and explore digital technologies for economic and social transformation can give an approximate understanding of how digital the country is as well as its preparedness for changes or on the other side the ossification of the state apparatus. Slovenia ranked 37th among the world's most technologically advanced countries (IMD, n.d.), a mediocre score, where countries in East Asia and predominantly Northern Europe reached the highest (among the top 20 countries, 10 are European while 5 are from Southeast Asia, which suggests regional interests for technological advancement). While Denmark, the US and Sweden were placed in the first three places, Switzerland, Singapore and the Netherlands followed right after. Central and Northern Europe is seen as technologically very advanced and as such a desirable region to migrate to. Nevertheless, as another STEM field worker from Slovenia suggests, the received wage is not a problem, but the available research infrastructure (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022).

2.2.2 Attractiveness of the most desired destinations

The American Slovenian Education Foundation (Asef), an independent, non-profit organisation, that supports highly talented students and pupils, previously researched the phenomenon of brain drain from Slovenia. According to their methodology description Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al. (2022, p. 183), quantitative survey participants included students as well as employed citizens that were either living in or outside Slovenia while their educational attainment ranged from primary school to concluded PhD. Data, that only includes the respondents, that have indicated their education attainment to be at least a bachelor's degree and their area to be natural sciences, technology or biotechnology to get as close representation of the STEM field as possible, allows us to make several presumptions.

The results of their study show the most interest in moving abroad to the countries of central Europe; (Austria, Germany and Switzerland) as well as the US (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022, p. 189). According to OECD's study of talent

attractiveness, including country comparison (2023b), of the 38 countries compared, among the indicated countries by Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al. (2022), the highest value for talent attraction for highly educated workers has Switzerland, with the value of 0.62. The composite indicator created consists of several different dimensions, such as quality of opportunities, income and tax, future prospects, family environment, skills environment, inclusiveness, and quality of life. As the data have not been fully updated by the author of the research yet, this research cannot speculate on the reasons for the values of these indicators, however, the composite indicator for talent attractiveness clearly shows, Slovenia (0.53) lags behind Germany (0.55), Switzerland (0.62) and the US (0.58). Nevertheless, it reaches a higher Composite indicator value than Austria (0.49) (OECD, 2023b).

According to Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al. (2022) STEM respondents with at least finished Bachelor's suggest the most attractive countries were Austria, Germany, the US and Switzerland according to the respondents' current place of stay and by asking the respondents where would they like to move in the future if they want to move as 49.5% of the highly educated respondents in the fields of STEM have indicated one of the mentioned countries. Slovenians enjoy comparatively high levels of income equality, personal security and high educational attainment, (OECD, 2017b), although there are concerns regarding a lack of modern organisation and management practices that were the reasons high-skilled workers chose not to remain in Slovenia.

Push and pull reasons for migrating often work in synergy. Inexistence of working positions for the respondents' profiles in their home country, a desire for a new experience and a desire to fulfil higher work challenges often coincide (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022), while the more educated assign lower relevance to the materialist factors, standard of living and living conditions as the less educated respondents. Most relevant push factors are often identified in insufficient possibilities for career growth, not enough employment opportunities and opportunities for personal growth followed by bad working conditions and the country-specific Slovenian mentality. The term mentality here is used following the conceptualization by Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al. (2022). While "mentality" is a very broad term, the report uses it as a proxy for ethnocentrism: implies people with pronounced Slovenian mentality do not accept diversity, are less tolerant towards immigrants, and are generally narrow-minded, while they nostalgically look backwards to the political environment with existing ties with the old Yugoslav system.

Considering the pull factors of moving abroad to the desired countries, the group of highly educated respondents with STEM education assigned to the self-fulfilling opportunities that the foreign country offers may it be by offering them a position to work abroad, offering a suitable quality study programme and offer new challenges in different environments.

The reasons for emigration are many and post-materialist values are as well in Western democracies given relatively strong emphasis (Knutsen, 1989). With a thorough overview in mind, this research paper has established the assessment of the factors, such as the

importance of the economic situation, with the self-assessment of the economic conditions and taxation as well as the living standard in the country and expected pensions' value. These factors cannot be ignored as they interrelate with several others from different spheres such as the work-related reasons of individuals. The workplace conditions, where this research implies the existence of employment opportunities as well as personal satisfaction related to working conditions, workplace attitudes and the possibility of growth and career development need to be taken into the analysis framework as work-related reasons are cited several times as crucial factors. Related to the workplace conditions, however, considered as separate factors, is the access to suitable, modern technological equipment which is why I have decided to include the technological factor in the analysis as well. As the political factors have been identified as relevant (de)motivators of moving abroad, they need to be considered when the analysis of migration reasons is conducted. For that reason, opinion about the country's bureaucracy, corruption political diversity and plurality possibilities is to be assessed.

Socio and cultural-specific reasons are considered also, as scholars Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al. (2022) mention specific Slovenian mentality to be a factor in the decision to leave the country. Thus, the mentality in Slovenia, where social negativism, nepotism at employment and personal satisfaction at work are implied as well as care for children's future when looking to ensure a suitable environment for the child's development in the future years. As the personal reasons have been identified as relevant, this research includes them as well. Migrating to continue education abroad is an established personal reason for emigration while moving because of a family or a partner is a common reason for transnational migrations concerning conflicts, however, cannot be neglected in the highly skilled migration likewise.

The consequences of migration and displacement carry considerable weight with a rising number of individuals resorting to internal and international migration as a response to environmental changes or they may encounter displacement from their residences and communities due to the gradual effects of climate change, or experience forced migration in the wake of sudden and acute disaster events (IOM, 2022). The last non-financial factor, to be assessed thus considers environmental factors as they were previously identified as evermore relevant. I will focus on the view of air pollution, and societal environmental awareness.

3 RESEARCH FRAMEWORK AND METHODOLOGY

3.1 Research framework

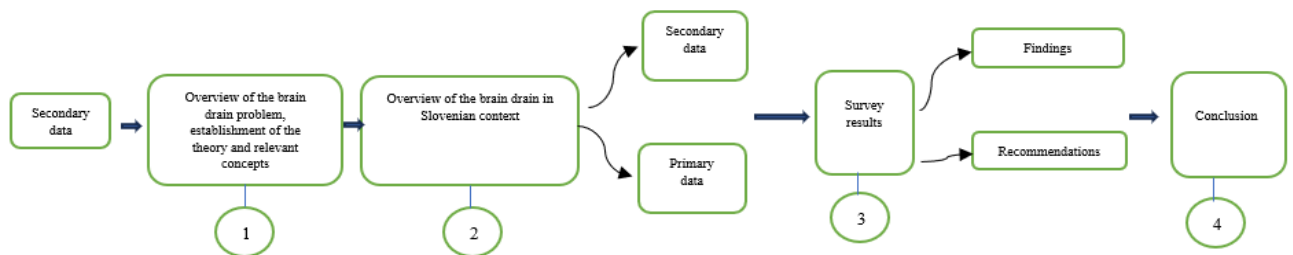
This master thesis aims to tackle the following research questions:

1. What are the preferences of migration among Slovenians to various destinations?
2. What are the most important reasons for the emigration of highly skilled STEM students to various destinations and what is the difference between their reasons and the reasons of highly skilled non-STEM students? What are the most and least important factors for emigrating abroad?

3. What role do non-financial factors play in driving the emigration of highly skilled Slovenian STEM students abroad?
4. What are the most effective policy solutions that Slovenian institutions or companies can implement to mitigate or reverse the brain drain in STEM?
5. How important are pull factors for highly skilled students from Slovenia to move abroad?

The first step is the establishment of the theoretical framework and relevant concepts, where I discuss the work of various authors, discussing brain drain and relevant concepts to the research. The second step of the research includes a discussion of brain drain in the Slovenian context with a focus on the STEM field, by analyzing secondary and collection of primary data, with a focus on Slovenian brain drain in the STEM field. The third step of the research is an in-depth analysis of the data gathered, uncovering the non-financial and financial factors that drive educated Slovenians abroad. Thereafter the fourth step consists of a provision of relevant policy trends, whilst formulating recommendations for the Slovenian government or institutions to increase cooperation with Slovenians abroad or retain highly educated Slovenians in the country. The actual goal of the research is to complete the scheme of the research. The visual representation of the research framework is presented in Figure 12.

Figure 12: Framework on research analysis



Source: own work.

3.2 Primary data collection

This research relies on primary data collection, focusing on the attitudes of the respondents towards emigration from Slovenia and the students' views on the reasons for migration. Whereas the sample consists of students that pursue at least a bachelor's degree level of education. For the research project, I rely on both primary and secondary data. To collect the primary data for this research, a survey questionnaire was developed following a model survey questionnaire created by Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., (2022).

The research methods, available to us, are either qualitative, quantitative or mixed, using both available methods. This choice substantially influences the data collection process and the interpretation of the results. When creating a narrow division between the possible

research methods, “one way to distinguish the two is the focus on numeric or non-numeric data”. (Saunders, Lewis & Thornhill, 2009, p. 151). I believe the numeric, quantitative methods will provide us with well-structured, reliable and valid results, which can help us understand the students’ logic towards emigration from Slovenia. Thus, this study will use quantitative techniques of data collection, analysis, and interpretation.

At the commencement of the thesis process, I considered conducting questionnaire surveys on Slovenian emigrants, living abroad but was forced to change the direction of the research from the focus of reasons of emigrants towards measuring attitudes of future possible future emigrant highly skilled labour force from Slovenian universities. I have decided to do so, due to time constraints and uncertainty of the availability of access to the mentioned population.

The questionnaire was prepared in 1ka.com scientific open-source portal, while the respondents were given instructions through the survey and submitted it directly on the mentioned portal. The form was active between May 30 and July 3. The sample was created using the purposive as well as the snowball method of gathering the respondents, through relevant social media groups using Facebook as well as Instagram. The user groups contacted were for example members of the group “Dogajanje na FRI”, “Kemija UL FKKT 2018/2019”, “Univerza v Ljubljani/University of Ljubljana”, “Biotehniška fakulteta – oddelek za mikrobiologijo”, as well as several other.

The final number of respondents that submitted the survey is 408. The target sample includes students of Slovenian universities, that are pursuing a university degree, may that be the bachelor, master, PhD or post PhD studies. The validity of the sample is achieved by adding an option that indicates the respondent is not pursuing their studies anymore, which sent the respondent to the end of the survey not setting any further questions.

3.3 Sample description

Demographic variables in the questionnaire include gender, age, nationality, university, faculty, which level of education they are pursuing, and the field of their study. The survey was solved by 408 respondents. After gathering data in the free academic research tool 1ka, I analysed the data gathered for this research with the help of the programme for statistical analysis – SPSS.

Table 5 shows 393 (97%) of the respondents answered they are Slovenian citizens, whereas 13 (3%) answered, had either Croatian, Serbian, North Macedonian, Bosnia and Herzegovinian, Albanian or Kosovar citizenship. Among the respondents, 159 (39%) identified as male and 247 (61%) as female (own work).

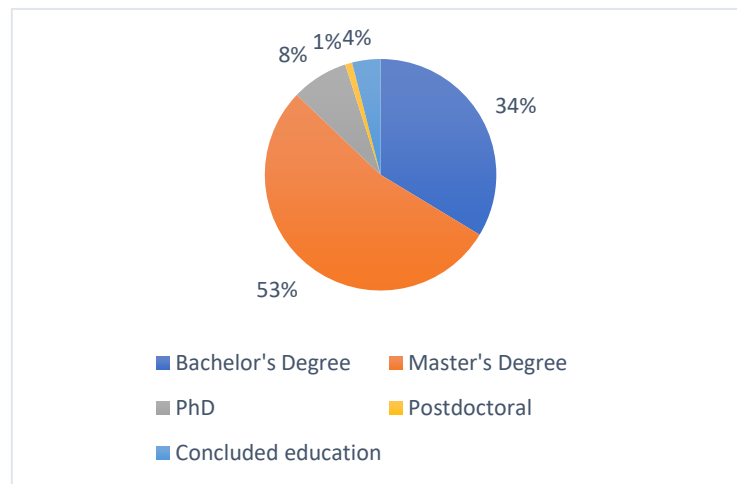
Table 5: Nationality of the respondents (Nom., %, N=408)

Nationality	N	Share (%)
Slovenian	393	96.81
Croatian	1	0.25
North Macedonian	1	0.25
Albanian	1	0.25
Serbian	2	0.49
Bosnian	7	1.70
Kosovar	1	0.25
TOTAL	408	100

Source: own work.

As presented in Figure 13, 53% of the respondents are pursuing bachelor's degrees, 34% Master's degrees, 8% PhD and 1% pursue postdoctoral studies. Responses from individuals outside of the formal education system were not considered (4%).

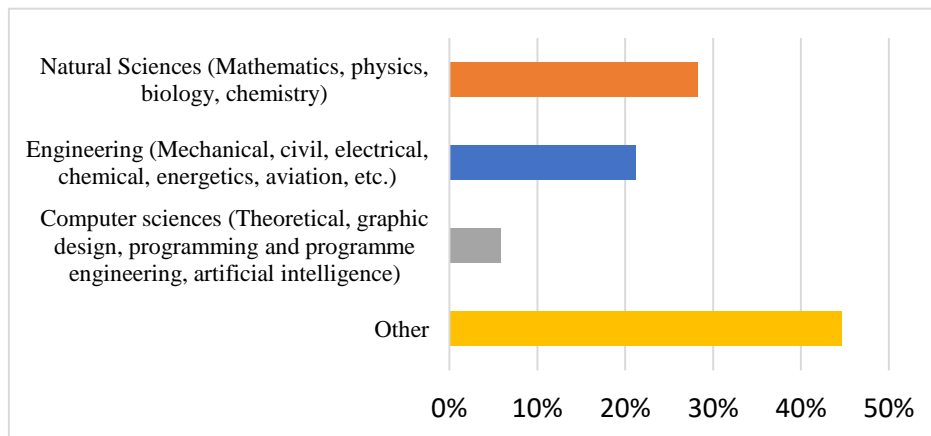
Figure 13: Level of education currently pursuing (N=406)



Source: own work.

The average indicated age of respondents (N = 408) is 25.8 years, while the distribution of age is concentrated around 21-27 years, with a handful of significant outliers. The questionnaire survey was designed with special attention towards students of Slovenian Universities in the fields of natural sciences (mathematics, physics, biology, chemistry) engineering (mechanical, civil, electrical, chemical, energetics, aviation etc.), computer sciences (theoretical, graphic design programming and programme engineering, artificial intelligence) or other. 28% of respondents indicated natural sciences, while 22% are pursuing an engineering field of study and 6% indicated they pursue computer sciences as presented in Figure 14.

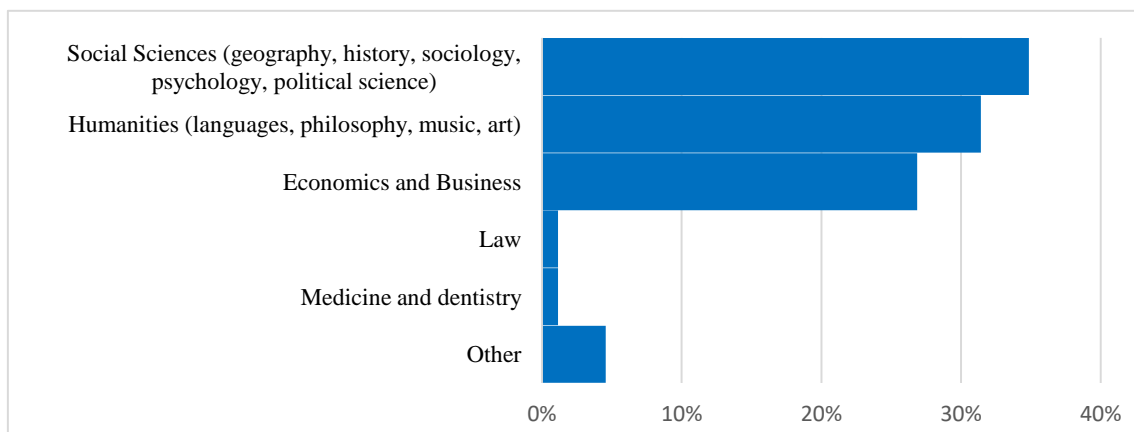
Figure 14: Field of education (N=396)



Source: own work.

“Other” category is relatively large and serves as a reference of comparison with the STEM field studies, which are the first three indicated categories, it is important to extract the specific fields, belonging to the category “Other”. It was picked by 44% of respondents and included answers, such as social sciences (geography, history, sociology, psychology, political science) (34.8%), economics or business field (26.8%), humanities (languages, philosophy, music, art) (31.4%), law and medicine (each 1%) and other (4.5%). Later in the analysis, respondents in STEM fields are presented alongside the accumulated results of respondents from non-STEM fields of study to ensure a clear overview. Figure 15 visually presents this category.

Figure 15: Non-STEM respondents by field of study (N=175)



Source: own work.

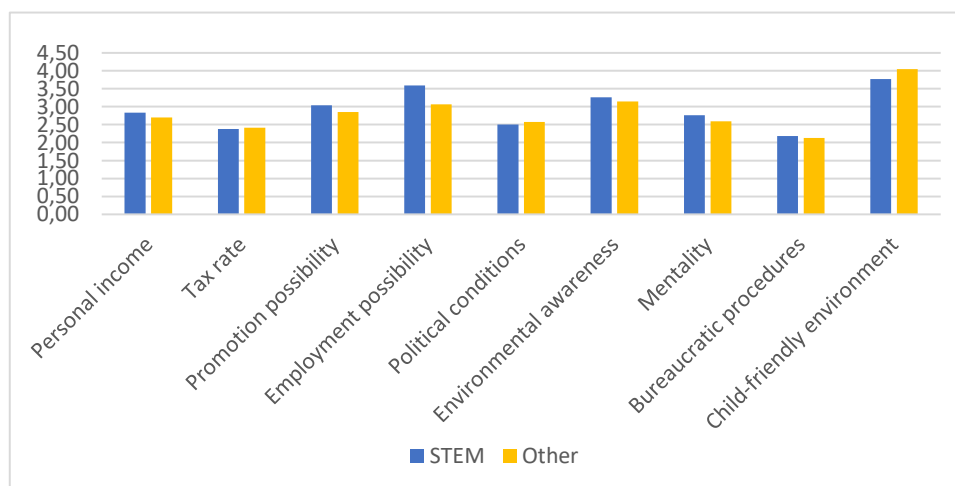
4 RESEARCH ANALYSIS AND RESULTS

4.1 Satisfaction with chosen determinants in Slovenia

To measure the respondents' satisfaction with the chosen determinants in Slovenia, the respondents were asked to rate (based on the Likert scale) the level of satisfaction with the chosen factors, defined in our work from the least to the highest level of satisfaction in Slovenia.

Figure 16 shows the average level of satisfaction of the respondents with the chosen factors, relevant to this research based on the field of study provided, being either a STEM or a non-STEM field. Students of STEM fields of study are generally more satisfied with the personal income determinant, and mentality in Slovenia as well as their employment and promotion possibilities, while they assign a similar score to the satisfaction with political conditions in Slovenia as well as bureaucratic procedures. The results show the satisfaction with a “child-friendly environment” is slightly higher for non-STEM students, suggesting they might assign high value to factors connected to raising their children, thus assigning a higher value to social factors. Tax and bureaucracy determinants show a noticeably lower score, among the determinants, followed by political conditions, mentality, and personal income. That suggests improving bureaucratic procedures, political conditions and tax policies as well as mentality-related issues could be just a few of the policy recommendations to improve the satisfaction of students from Slovenian universities.

Figure 16: Satisfaction with chosen determinants STEM/Other field of study, mean, (N=321)



Source: own work.

4.2 Nonfinancial factors for migration of the respondents

Results suggest Slovenia is in large part serving as a springboard for many students for their leave abroad, as that is the case for many students among our sample as well as the sample from Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., (2022). etc. Emigrants leave Slovenia for different reasons and indeed 57% of respondents from the STEM field of study in their research study answered, they would not return to Slovenia, there is a big gap concerning the retention of the highly skilled or at least an encouragement of a partly cooperation with their mother country.

Based on the established theory, it is relevant to look at the work-related factors as well as attitudes at work, not neglecting the previously mentioned differences in mentality. Individuals have different preferences due to various reasons and might be prone to considering moving abroad. Thus, a question if the respondents have in the past considered moving abroad and how strongly have they done it was added. Respondents, answering positively to the first question, have been further asked to indicate the countries, they have considered moving into and provide the evaluation of chosen push and pull factors. The results of the latter investigation are presented in Table 6.

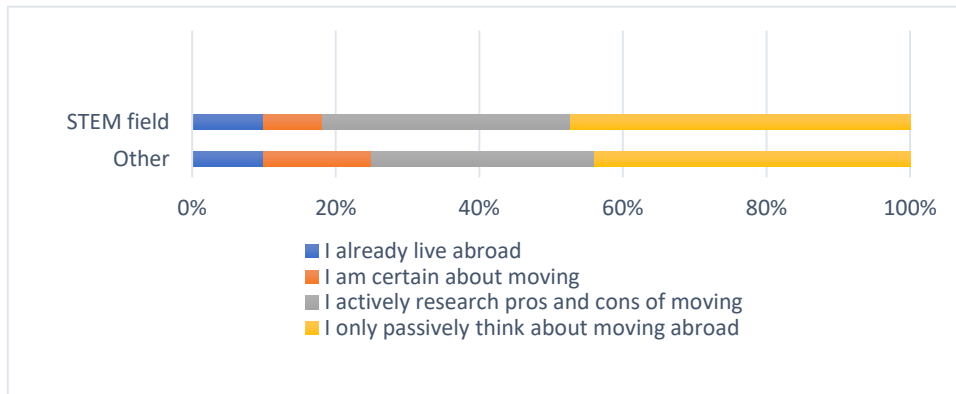
Table 6: Have you ever thought about moving abroad? (N=327)

What is your field of education?	Have you ever thought about moving abroad?		Sum
	Yes	No	
Engineering	61%	39%	100%
Natural sciences	57%	43%	100%
Computer sciences	65%	35%	100%
Other	72%	28%	100%
Sum (%)	65%	35%	100%

Source: own work.

The responses of our sample suggest a big majority (at least 75% for the field other and over 80% for the STEM field respondents) are not yet certain about moving abroad, however, are considering it. STEM-educating respondents are less prone to moving abroad, according to Figure 17 while computer sciences and engineering field students are less likely to consider moving, according to the data gathered. Nevertheless, computer sciences students stand out with more than half of the respondents actively researching the pros and cons of moving abroad, which suggests a strong sentiment towards the idea of leaving Slovenia and living abroad.

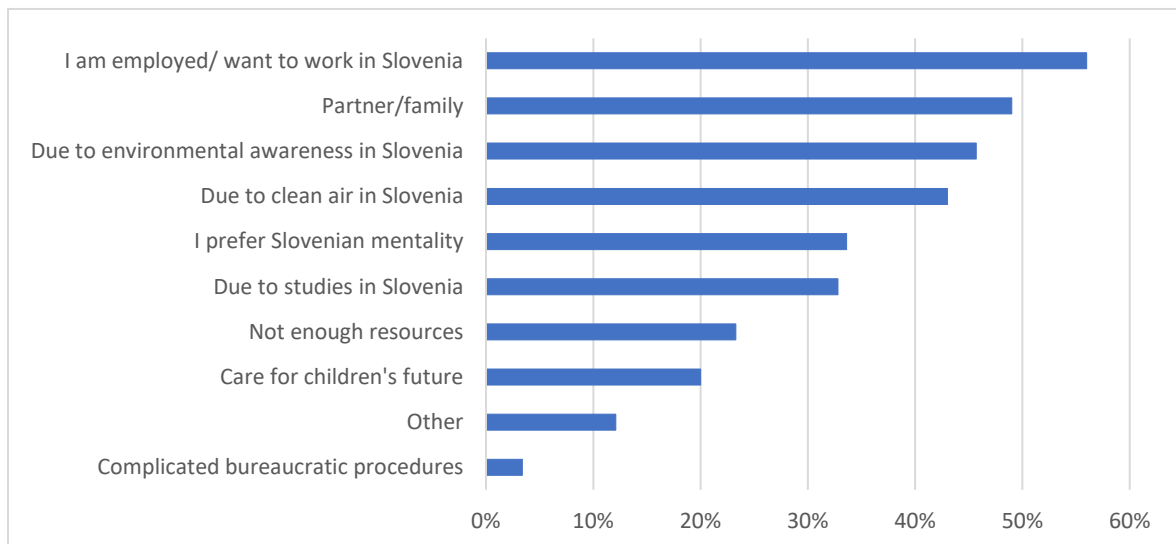
Figure 17: How strongly have you thought about moving abroad? (N=210)



Source: own work.

If the respondents answered, they had not considered moving abroad, they were asked to indicate the reasons for that and after their answer, were that excluded from the questionnaire. Figure 18 represents their answers to this question with multiple possible answers. Their biggest reason was employment in Slovenia and family members/partners, keeping them in the country, while a slightly surprisingly high share of respondents chose environmental reasons as well as the suiting mentality. Among the answers, other reasons mentioned uncertainty and fear of the unknown as well as the stress, inevitably coming with moving abroad being a major factor in not considering moving abroad.

Figure 18: Why have you not considered moving abroad? (N=115)



Source: own work.

4.2.1 Most favourable destinations

The questionnaire included the question about the respondents' three of the most preferred destinations they would move to if they have stated, they had thought about moving abroad. While 207 respondents had at least one preferred country of destination, 185 respondents chose to indicate at least three countries. Among the respondents pursuing engineering studies the most favourable destinations indicated were Germany, Spain and the US, with Austria, Switzerland and the UK right behind, natural sciences students have indicated Germany, Sweden, the UK and the US, while destinations of choice by the computer sciences students were mostly the UK, Germany, the Netherlands, Norway and Denmark. Similarly, the preferred indications of respondents pursuing non-STEM fields of study were the UK, Spain, the US, Switzerland, and the Netherlands.

4.2.2 Push factors affecting the decision to leave Slovenia

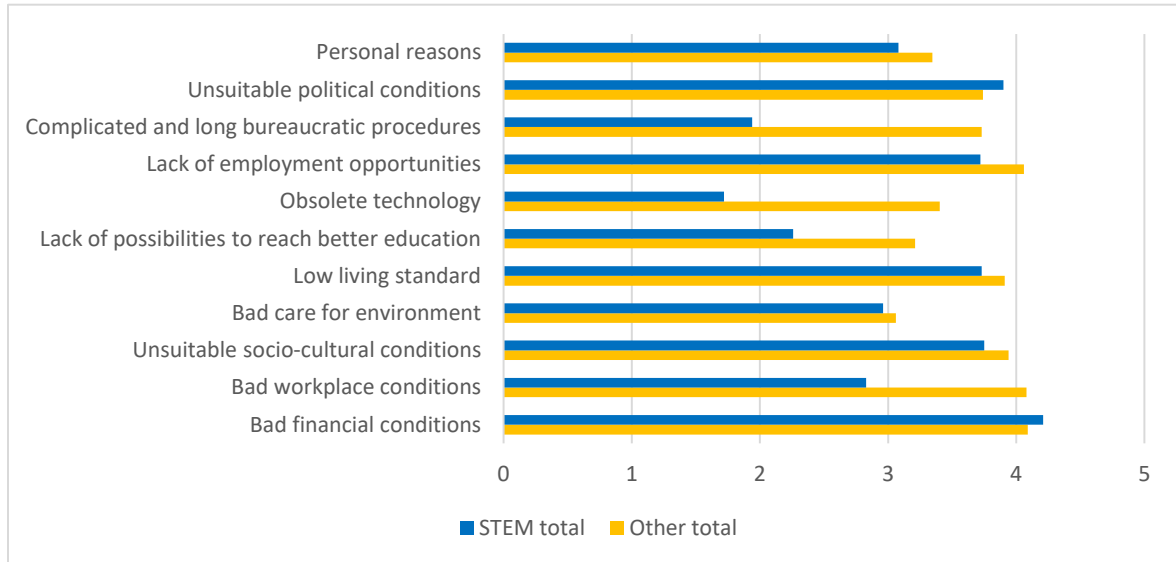
To evaluate push factors, we have asked the respondents to indicate their reasons for moving outside Slovenia using a Likert scale (number 5 meaning an extremely important factor). The factors, which this research evaluates are based on the already established methodology presented in Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., (2022) and were appropriated slightly to serve our objectives. Thus the factors evaluated to determine the strength of either push or pull factors, are financial conditions (personal income, expected pension), workplace conditions (promotion possibilities, working conditions, personal satisfaction, interpersonal relations at work), socio-cultural conditions (mentality, nepotism, care for children's future), care for the environment (air quality, environmental awareness), living standard, possibilities to continue education, possibility to access modern technology, employment opportunities, bureaucratic procedures, political conditions (respect for diversity, corruption), personal reasons (personal relations towards family/partner).

Figure 19 represents the mean scores, divided by the field of study of the respondents, depending on whether they belong to a STEM or non-STEM field. Both groups have assigned the most importance to the factor of financial conditions, however, they differ slightly among other factors. While for non-STEM students workplace conditions, employment opportunities and living standards present the highest motivators to leave the country, STEM students would argue, that unsuitable political conditions, socio-cultural conditions and lack of employment opportunities follow financial conditions as the most important. Interestingly, STEM students are not as mindful of the quality of their working conditions as well and they do not consider the Slovenian technology gap to be a huge factor to leave leaving the country. Another point to mention is bureaucracy, where non-STEM students have recognised a significantly higher importance of leaving Slovenia in comparison with STEM field students.

A large difference is visible among the workplace conditions, lack of possibilities to continue education, technology, and bureaucracy determinants. All are valued higher among the non-STEM students. To determine the strength of the above-mentioned push factors, the

average for both groups of students needs to be considered. The mean of push factors for students, pursuing STEM fields of study is calculated at 3.10 while the mean of push factors for students, pursuing other fields of study than STEM is 3.69. That suggests, the surveyed non-STEM students feel more concerned by the push factors than STEM students.

Figure 19: Factors whether to leave Slovenia, mean, (N=209)



Source: own work.

4.2.3 Pull factors affecting the decision to move to a destination country

Afterwards, the respondents were similarly asked to identify the importance of given factors for moving towards a destination country using a Likert scale (number 5 meaning an extremely important factor), which measures the importance of pull factors towards a destination country. Figure 20 shows the average scores assigned by the sample of students responding. Among the pull factors, the STEM field students have again assigned the highest importance to financial conditions, while students of other fields of study assigned the highest importance to the working conditions of the destination country followed by employment opportunities before the financial conditions of the destination country. Similarly, STEM field respondents consider the working conditions and employment opportunities of the destination country the most important factors while socio-cultural factors and the consideration of standard of living follow. Significantly less important for both groups are factors of environment, personal reasons and possibilities of continuation of a higher quality education.

Figure 20: Factors whether to migrate towards the destination countries, mean, (N=207)



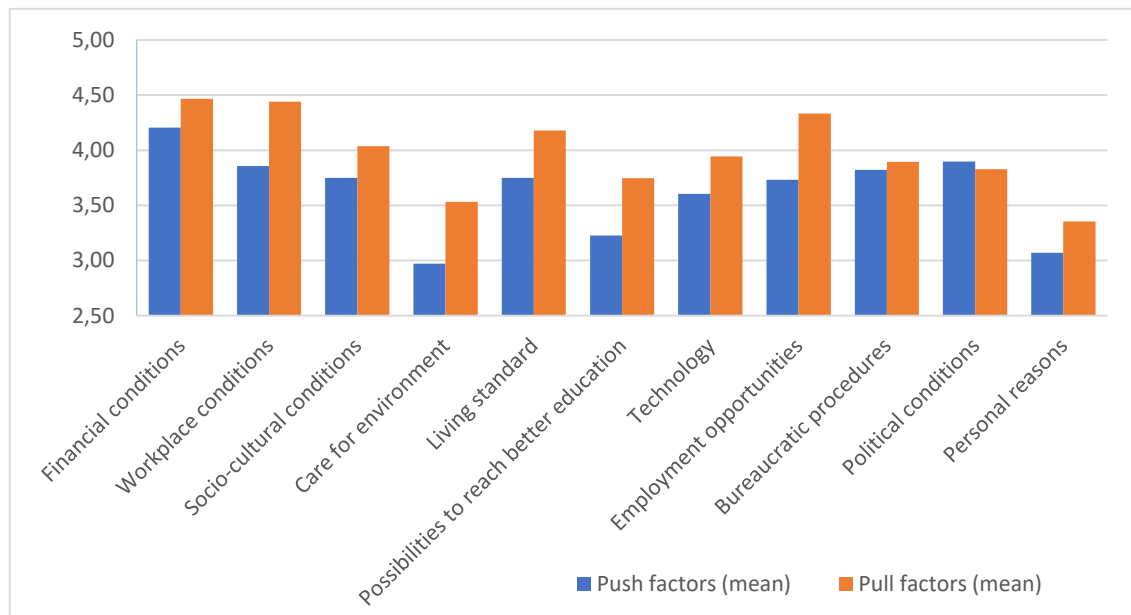
Source: own work.

Both groups assigned a higher value to them compared to the push factors in all categories. STEM respondents gave pull factors an average value of 3.98 while non-STEM respondents averaged a score of 3.96. The latter means the respondents have answered the pull factors have in their opinion greater intensity than the push factors available, confirming pull factors had a stronger influence when respondents considered the question of emigrating from Slovenia in comparison with push factors. The mean value of non-financial factors for non-STEM respondents regarding the push factors is 3.60 while for the STEM respondents reaches 2.90. On the other hand, the mean value of non-financial factors for non-STEM respondents regarding the pull factors is 3.80 while for the STEM respondents reaches 3.90. The concluding remark suggests the respondents with non-STEM education feel more pushed away from Slovenia than their STEM colleagues as the mean scores above suggest.

Figure 21 presents the comparative mean values of STEM respondents, for the chosen factors, by their push/pull nature. The measure of respondents' attitudes towards the pull factors suggests they are perceived as more important in every chosen category except for the political conditions. An economic factor "Financial conditions" is perceived as the most important pull factor (4.47), when respondents are considering moving towards a destination country, while "Workplace conditions" follow as the second most important factor (4.44). Respondents assigned a high mean score to the pull factor of "Employment opportunities" (4.33) and "Living standard" (4.18) which "Socio-cultural conditions" follow (4.04). Respondents chose "Technology" to be the next strongest pull factor (3.94) and "Bureaucratic procedures", a political factor to be of slightly lesser importance (3.89) "Possibility of a better education abroad" is only a slightly important factor (3.75), followed by another non-financial factor "Care for environment" (3.53) while "Personal factors" are the least important push factor for STEM respondents (3.35). Only the chosen factor "Political

conditions” was indicated on average more important as a push factor, suggesting among the chosen factors STEM respondents consider only political conditions as a reason to migrate from, while the rest suggest Slovenia as a developed liberal democratic country is in a good state, however other desired countries are perceived more attractive in the eyes of the future STEM emigrants.

Figure 21: Push and pull factors, mean, STEM field of study, (N=108)



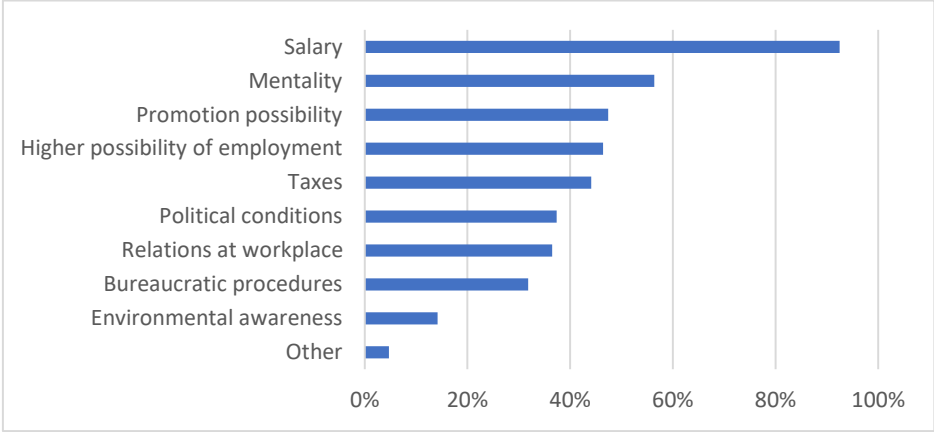
Source: own work.

4.3 Needed changes to return or stay in Slovenia

The last closed question considered some of the changes that would need to happen for respondents, to reconsider leaving the country or consider returning. A question introduced was asking what would need to change for them to stay in Slovenia which the questionnaire presented to every respondent that has answered he has at least thought about moving abroad. The factors considered were connected to previous questions as well as Bhardwaj & Sharma’s model of migration factors (2022). In the questionnaire I have asked respondents to choose as many factors as they wish, that would make them reconsider leaving the country while also allowing them to provide their factors. They chose between salary, mentality, promotion possibility, higher possibility of employment, change in tax policy, political conditions, relations at the workplace, environmental awareness and other factors as presented in Figure 22. A large share of respondents is, as expected, sensitive to wage increases, while surprisingly more than half of the respondents chose the change of mentality as a factor and 47% a work-related higher chance of promotion. As OECD (2023c) writes the average single worker in Slovenia faced a net average tax rate of 33.6% in 2022, compared with the OECD average of 24.6%. Not surprisingly, the changed taxes were chosen by 44% of the respondents as one of the deciding factors for them to stay in Slovenia. 37% of respondents chose

political conditions and improved relations at the workplace, which is not a negligible share as well, while 32% of respondents chose the improvement of bureaucratic procedures to be a factor.

Figure 22: What would need to change for you to stay/return to Slovenia? (N=204)



Source: own work.

Respondents made use of the open question in the Survey, which allowed them to state their concerns, frustrations, or desires towards the issue of migration of highly skilled from Slovenia. The comments that have appeared numerous times concerned a lack of meritocracy and a perceived mentality that does not encourage an individual’s success and the government’s system that does not provide an initiative for them to stay. as well as a lack of strategy of cooperation after the individual already leaves the country as well as a missing strategy towards affordable housing for young, educated people. It can be thus concluded that Slovenian mentality is recognised as an important factor that would contribute to the decision of STEM students to stay or return to Slovenia.

5 DISCUSSION

The fifth chapter provides a critical discussion of the final results of the master’s thesis, limitations of the study, recommendations for future research, and recommendations for the Slovenian government. The next subchapter will discuss the determinants of brain drain amongst students from Slovenian universities based on the results of the questionnaire. The turnout is a result of the previous findings which have been shown in Chapter 4. The summary includes the responses of 408 respondents who participated in the questionnaire, the determinants, and the nature of the reasons why the students of Slovenian universities want to emigrate. Below, important determinants are presented as discussed throughout the thesis, answering the question of why the future highly skilled labour force decides to emigrate.

As it was discussed in the last chapter, an analysis was conducted distinguishing between push and pull factors, when it was discovered the two, pull factors indeed have a stronger

effect on migration decisions of the students from Slovenian universities, no matter if the field of study is STEM or non-STEM. However, as shown in the presentation of STEM mean results, political factors are considered stronger as push factors rather than pull.

Young people in Slovenia have as this research suggests, in large proportions (65%) at least thought of moving abroad (Figure 17), thus the importance of researching the factors for that is highly relevant.

5.1 Factors, related to financial security

5.1.1 Standard of living personal income, taxation

Factors, related to financial security (standard of living, personal income and taxation) still have a high influence among Slovenian students, no matter which field of study they belong to. Poverty as well as expected financial conditions and living standard of the country are important motivators for migration towards various destinations, however mostly Anglo-Saxon or German speaking. These financial security factors still reach high values of importance, when STEM students consider migrating, while financial reasons such as expected pension and income are among the most important push factors, living standard is not considered an important push factor. Among the pull factors, living standard is also not the as important factor, and is followed by good financial conditions expected. Measured satisfaction with salaries reaches a medium-low score (2.83), while taxation in general in the STEM field reaches a low score (2.38). Salary and taxation as factors will affect 22% of our respondents to return or stay in Slovenia.

Financial factors thus cannot be neglected as the most influential push factors are the individual's financial conditions, paradoxically, based on the satisfaction values for STEM respondents financial conditions are a stronger push factor due to its taxation as the average satisfaction with salaries indicated was much higher (2.83) in comparison with the indicated satisfaction with taxation in general (2.38).

Lebanese parliament speaker Nabih Berri has identified brain drain as the biggest problem Lebanon faces, furthermore, he called the emigration of highly skilled labour force a "transmitted disease among the youth" (Gibson & McKenzie, 2011, p. 107). Furthermore, aspirations are the driver of an individual's life path and well-being. The idea that aspirations are proxies for human choice and determinants of socioeconomic outcomes is not new to the social sciences. As aspirations are empirically defined as forward-looking behaviour (Gardiner & Goedhuys, 2020), they capture the individuals' beliefs about the opportunities available to them in society as well as their achievement expectations in the uncertain future.

Primarily, as this research paper shows in Figure 16, STEM respondents, even though they are on average more satisfied with their income as non-STEM respondents, still assign lower average values to it than neutral (neither satisfied nor dissatisfied), which hints at the

contrary result to our prepositions, as the highly educated STEM field workers are perceived one of the most paid workers globally as well as in Slovenia. Simultaneously, these evaluations are based on the respondents' attitudes and aspirations.

The aspirations of young people in Slovenia have changed through the decades as at the turn of the millennium, young populations in Slovenia were perceived as predominantly passive, egocentric and conformist (Mencin Čeplak, 2006). The results of the questionnaire, however, indicate different aspirations. Young people, members of Generation Y, called Millennials, born between 1978 and 1994 have been strongly influenced by the globalization of society and the marketplace (Williams, 2015) and, while scholars see them as confident, socially conscious, respectful towards differences and technologically savvy (Williams, 2015), Generation Z's (people, born after 1995) attitudes represent an amplification of that of Millennials. As the labour market nowadays is opening its door to Generation Z, the latter is the first generation born in a fully digitalised world, and they have never known a world without the worldwide web or a home without a PC (Bencsik, Juhász, & Horváth-Csikós, 2016). Furthermore, they are many times referred to as "the first true digital natives" and "the first real global generation" (Francis & Hoefel, 2018).

This theoretical basis suggests, that non-monetary factors are important drivers of the migration of young people that belong to Generation Z or Y. Nevertheless, the factors of financial security, belonging to the lower-level needs in Maslow's typology, cannot be neglected as they are cited many times as the most important factors. Ensuring financial security is according to Gayle (2019), the young generation's high priority in the US, due to the high student and credit card debt. Even though Slovenian students differ in that regard, as their education system differs a lot from the system in the US, the group wants to actively learn to enable themselves to achieve better salaries to solidify their financial futures (Gayle, 2019).

Financial security as an increase in an income potential has been assumed primary driver of brain drain (de Silva et al., 2014; Kizito et al., 2015), however above a certain threshold the financial factor is removed as the most important decision to migrate. In more prosperous countries financial stimuli have a lower impact in contrast to professional development opportunities (Dohlman et al., 2019). As the authors (2019) establish, high-income, high-resource countries in North America, Australia and Western Europe actively benefited from the highly educated labour force from the low-resource countries, without the need to subsidize their complete education, however, even in low and middle-income countries, a young educated person's salary sufficiently provides for the basic needs of food and shelter, which implies the reasons for their emigration, unless they are in an active war or refugee situation, unlikely to be lower level needs, based on the theory established. Migration as an investment decision, is made having been motivated, influenced and facilitated by various factors with expectations of higher wages in the host country (Phuong & Venkatesh, 2015). That includes considerations of salary and its taxation as well as living costs, and hinting at the possibility

of having a higher living standard. This decision in the mentioned case is however irrational due to the high risk of not finding the right employment opportunity and the high cost of moving involved. Nevertheless, only 23% of our respondents chose funding to be a factor for them not considering moving abroad.

5.1.2 Job prospects

Job prospects as lower level physiological and safety needs are another relevant financial security factor. This research paper classifies unemployment and possible job opportunities abroad as the factors of job prospects. According to the research presented, they are by far the main reason (55%) of students in Slovenia to not consider moving abroad, thus can be used as a large mitigator of the emigration of the young highly skilled labour force. Our respondents have considered unemployment as a moderately important push factor (3.72), however less important when compared to a pull factor (4.33). That indicates a well-established social policy system in Slovenia, while as mentioned, ESS has in previous years been publishing constant employment opportunities for the STEM profiles, suggesting there is a continuous demand for the labour force in these fields. The issue arises, when the exact profile of the acquired education is not on the labour market, forcing young people to move abroad to get a position that matches their profile. Nevertheless, the STEM respondents are on average satisfied with the employment opportunities in the STEM field in Slovenia and would consider staying or returning to Slovenia in only 10% of cases indicated by the respondents. Possible open position on the market abroad was assigned a much higher value of importance than a lack of them in Slovenia, which suggests, that the respondents are generally very motivated to migrate to the destination countries should there be more opportunities abroad.

Nearly 3.25 per cent of people worldwide reside outside of their country of birth, and one of the primary reasons for this is employment (UN, 2016); this number has grown further to 3.6 per cent in 2020 (Batalova, 2022). The beforementioned neoclassical theory, which considers earning, remuneration and employment as the major factors behind cross-border migration has been an inspiration to scholars, who discovered the employment opportunities were in their studies the reasons, graduates did not return home after immigrating to France, the UK, and the US (Kwok & Leland, 1982). For retention of the young labour force in question, studies show, that increasing desirable employment opportunities via local and international partnerships is critical, while authors (Omaswa, 2014; Stuart-Shor et al., 2017) mention practices of establishing programmes aimed at job creation as the unemployed citizens of the home country will eventually search for employment opportunities abroad to reduce wastage of talents (Kwok & Leland, 1982), which can be mitigated.

In case young individuals, go study abroad, researchers argue, less developed countries find their younger intellectual elite – skilled labour force – generally accept employment in the country where they have received their advanced training, and do not return to their native land (Kwok & Leland, 1982), furthermore, that phenomenon exists even when students have

a preference for returning home (at equal salaries) and employment opportunities exist at comparable average pay due to the information asymmetry at the time of hiring, as when educated abroad, employers abroad can more precisely determine graduate's potential productivity, thus offering more appropriate wages tailored to individuals, while the employers in the home country offer wages based on the average productivity of returning workers (Kwok & Leland, 1982). This aspect is evermore relevant for Slovenia as its membership in the EU, as the membership has substantially eased cross-border mobility, while the citizens of the member countries are not limited to employment inside one country, but rather have the possibility to be employed in any other EU member country (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022, p. 7).

Slovenia experienced a positive trend in lowering unemployment in the last few years (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022, p. 275), while for emigrants, the destination countries are the ones with low unemployment (Hunt, 2006). That finding should be observed as that suggests a higher attractiveness of Slovenia to an educated labour force from Slovenia as well as from abroad.

5.2 Non-financial factors

Young generations, such as the Millennials or Generation Z, put less emphasis on materialistic values than the previous generations (Ashby, 2023). Millennial choices reflect a group of people who are as concerned about the world as any previous generation (e.g., they often go out of their way to make the most ethical purchase, spending more on sustainable options and wanting something real, authentically made by a real human), while their key values lie in minimalism, ethical attitude and sustainable living (Ashby, 2023). As that theory was well researched, I believe advancing with non-financial factors is a relevant point to address for future generations, which will presumably continue following the trend of nowadays' younger generations in becoming more aware of their self-actualisation needs.

5.2.1 Work-related factors

Motives of a socio-psychological nature are to be considered, since Slovenian workers value good relations and positive relationships at work (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022, p. 24), work-related factors as well as socio-cultural factors analysed are described below. Among the factors of job prospects and working conditions, factors identified, were the labour conditions, employment possibilities, unemployment, existing profession for the acquired education, an existing field for the acquired education, no satisfactory work challenges, bad relationships among colleagues or superiors, inferior possibilities for career development and promotion and nepotism at employment (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022).

While conducting the research, the logic established changed slightly, as there was not enough interest by the respondents to answer such a large number of questions about various

factors. Thus, the analysis of promotion possibilities, working conditions, personal satisfaction, interpersonal relations at work, and employment opportunities is included in this research paper, however, the latter is included among the factors related to financial security, while the beforementioned nepotism belongs to the social factors.

The pull factor of workplace conditions (labour conditions, satisfactory work challenges and relationships among colleagues or superiors, and the possibilities for career development and promotion) reached a high mean (4.43); while attitudes towards work-related conditions are weaker (2.83); suggesting among non-financial factors, working conditions are relevant when STEM students consider moving to their desired destination countries. STEM respondents were on average satisfied with their promotion possibilities (3.04) even more than non-STEM respondents (2.85), while they argue around 10% of STEM respondents would consider staying in Slovenia or moving back to Slovenia if their possibilities of promotion changed. The same percentage of respondents indicates improvement in workplace conditions as the factor to consider staying or returning to Slovenia.

Young highly educated people belonging to Generation Z, look to grow their careers with less focus on just economic satisfaction, rather they value work-life balance, mental health benefits, and the flexibility of the work schedule. These factors aim to fulfil their higher esteem needs on Maslow's pyramid scheme.

Furthermore, regarding factors of fulfilling the higher needs through work, the aspirations of career progression and the willingness to improve through training or career grows with the level of education, is doubled for highly educated people, while those with a bachelor's or a master's degree prefer to seek new adventures and opportunities (Bartolini, Gropas, & Triandafyllidou, 2017). They emphasise, that skilled young people are most eager to look for better career and training opportunities, where meritocracy at the workplace and better relations at work are valued, while those with lower levels of education more often refer to economic motivations (Bartolini et al., 2017).

5.2.2 Socio-cultural factors

We considered social factors of the quality of education (as the possibility to acquire a better/higher one), and socio-cultural conditions of the country – which consist of nepotism, mentality and the care for children's future.

The possibility of acquiring a better education as a pull factor, among STEM respondents reached a moderately high mean value (3.75) respondents value the quality of education abroad highly which adds to that being a relevant pull factor of migration. Another mentioned factor among the STEM students; socio-cultural conditions, which included (Slovenian) cultural mentality, nepotism and care for children's future reached a higher value as a pull factor as well (4.03), while the mean value of this factor as a push one was moderately high as well (3.75). The latter finding suggests, the respondents value global (non-Slovenian)

mentality higher than Slovenian ones. As STEM respondents have on average been slightly dissatisfied with Slovenian mentality – Figure 16 – (2.76), there is room for further research on these factors.

Furthermore, the respondents in our survey have mentioned that they are dissatisfied with the lack of meritocracy in Slovenia, as well as the lack of proper encouragement for high achievers and successful entrepreneurs. We know that wealthier countries can try to incentivise the desired profiles if there is a need for them, where incentives include social factors as well, such as financing of education, quality healthcare and other social services, consideration of children's future needs to be measured (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022).

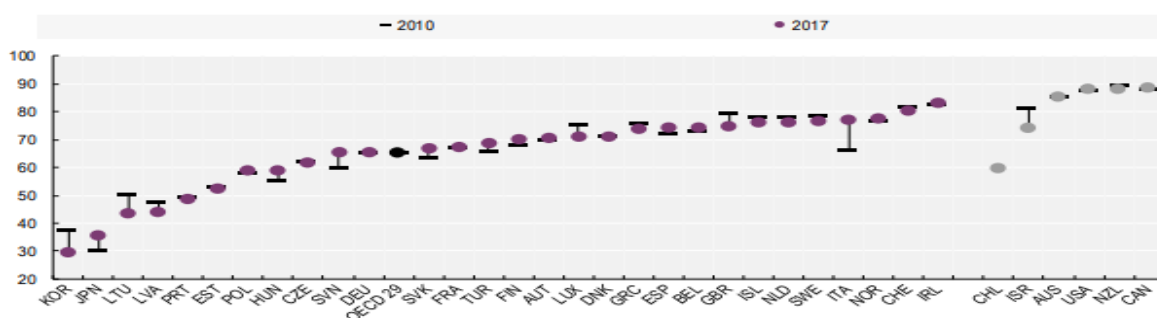
In contrast with the beforementioned comments on unsuitable mentality, 34% of the respondents, who have not thought of moving abroad, chose the Slovenian mentality suits them better, while 33% of STEM respondents indicated they haven't thought so due to their studies in Slovenia, which suggests satisfactory quality of studies and a lack of ambitions to further study abroad. This suggests a strong and well-developed social infrastructure that can help retain a highly educated labour force in Slovenia.

Nevertheless, Slovenian mentality was mentioned in 13% of responses from STEM respondents on the question of what would need to change for them to stay/return to Slovenia, while a high share of STEM respondents (20%) that have not thought of moving abroad chose they have not done so due to the care for the children's future, which supports the factors of healthcare, social services and education in Slovenia.

Country's mentality is OECD's publication "How's life?" provides key statistics on whether life is getting better for people living in OECD countries by focusing on the current well-being data. The indicators of health, quality of education and subjective well-being are especially relevant for this section. The issue of healthcare has gained coverage in the popular discourse, especially after the Covid-19 pandemic, thus the policies have focused on gradual improvements in that area.

Figure 23 the presented data shows the share of the population aged 15 and over, reporting "good" or "very good" health. As seen in the Figure below, the measures in 2010 and 2017 suggest, the mentioned share for Slovenia (SVN) is just around the average OECD share, below 70% and has risen substantially since 2010, which suggests the perception towards the individuals' health is improving. Related to the research it is important to understand, that higher educated people report better health as well as higher life expectancy on average (OECD, 2020). Thus, the healthcare conditions and systems are an important factor that reflect if the trend in the country regarding healthcare is improving. According to SURS (2023) 68% of Slovenian citizens, aged over 16, valued their general health as being good or very good, in 2022.

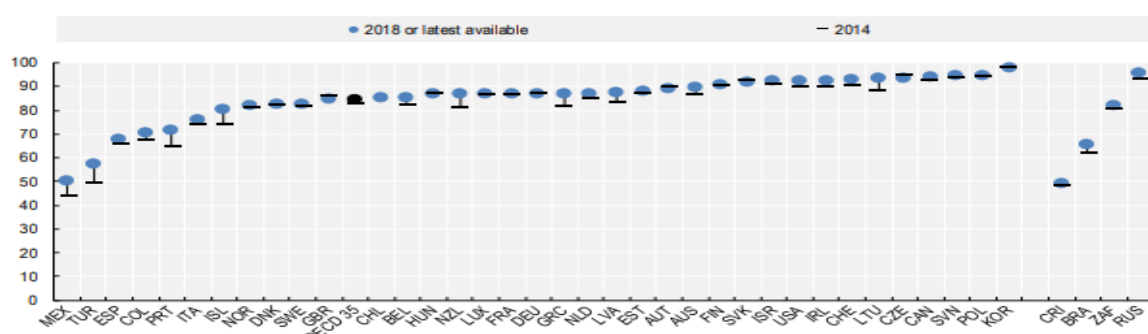
Figure 23: Population aged 15 and over, reporting “good” or “very good” health, %



Source: OECD (2020).²

Figure 24 represents the share of young people, aged 25-34, with at least an upper secondary education. Slovenia (SVN) is among the countries with the highest share, above 90%, furthermore, educational attainment is rising in most OECD countries as seen in this figure. According to SURS (2023), almost half of the whole young population (19-24 years) was enrolled in tertiary education in 2021. That is on the EU-27 level the highest share of young people of this age group enrolled and Slovenia persisted in the first place since 2013 when these specific data started to be collected. EU average the share of people enrolled in tertiary education in this age group was 36.1. Thus there is a perception of a good quality of education in Slovenia as well as certain benefits of being enrolled into tertiary education.

Figure 24: Share of people aged 25-34 with at least an upper secondary education, %



Source: OECD (2020).³

Social factors are associated with the fulfilment of self-actualization and self-esteem needs and can be satisfied by migration decisions made to ensure better prospects for families or children (Bartolini et al., 2017) or to receive better intellectual stimulation or training (Gibson & McKenzie, 2011). In that regard, leaving home as a socio-psychological need is

² Country codes are available in Appendix 4.

³ Country codes are available in Appendix 4.

mentioned especially considering young generations– for a variety of reasons, as a need to separate from their parents, prove their independence and as a *rite de passage* marking their transition to adulthood (de Haas, 2021). That, however, is easier achieved with well-established social systems that can help young Slovenians to achieve their independence. According to Eurostat (2023), the Slovenian young generation leaves their parental households relatively late, as the data from 2020 shows the average age of young people moving out in Slovenia was 29.6; which is much higher than the EU average of 26.5 years.

Perhaps the reason for Slovenians, staying at home for that long lies in the housing problem, as indicated by our respondents. Housing provides shelter, safety, privacy and personal space (OECD, 2020). Therefore, it is specifically associated with reassuring the safety and shelter needs, belonging to lower levels of Maslow’s pyramid. Nevertheless, the lack of it can be a factor in skilled migration, according to our respondents. Even though respondents recognised a high quality of life and education, and are satisfied with their health, several have mentioned a lack of housing for young highly educated to be an ongoing issue. As the new economies of migration suggest, household and family factors are the main drivers of migration, while it suggests a collective decision to migrate is made by a group of related individuals (households or families) to not only maximize the profit but to reduce non-labour-market related risks as well (Massey et al., 1993), furthermore, the decision is made to raise the quality of life, and future opportunities of family members (Gibson & McKenzie, 2011). Already in 2016, the situation with available housing was dubious, as it was discovered that around 85% of young people live with their parents, which is the highest share in the EU. Furthermore, the EU member countries devote around 4% of GDP on average for the accommodation of their citizens, while Slovenia ensures a hundred times less (Val 202, 2016). Every fifth accommodation was, according to the latest available data, empty in 2018 (Miklič, 2022). To ensure a higher supply of housing on the market, the Slovenian government is preparing a progressive taxation of apartments, increasing the tax for every additional owned real estate, which will not come into effect before 2025. The tax will supposedly value 0.1% of the real estate value and will not affect most of the owners, however, a similar tax has already been proposed in 2014 and failed on the Constitutional court’s judgment (Zupan, 2023).

As the personal factors of migration are rooted in culture, a significant aspect of how individuals handle personal issues is a part of their culture. Reasons, such as family reunification or a foreign partner in case of pull factors or moving away due to personal reasons or from a partner, is a factor, that the students identified several times. When discussing cultural factors, Slovenian mentality was mentioned several times. According to Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., (2022), it is a very broad term; their research implies people with Slovenian mentality do not accept diversity, are less tolerant towards immigrants, and are generally narrow-minded, however, respondents also thought about the specific backwards-looking political environment with existing ties with the old Yugoslavian regime. In case highly educated people receive income, higher than the physiological

minimum (suggesting they are pursuing higher level needs), then, according to Reichlova (2005) their migration flows might stop even if there are wage differences in the region, should there be well established social security benefits above the physiological threshold, and culturally conditioned personal valuation of social ties and safety.

5.2.3 Political factors

Slovenia was in the past a country of refuge due to political crises in Yugoslavia when it met an influx of refugees from war areas of Croatia and Bosnia and Herzegovina. As IOM (2003) mentions, asylum-seekers and refugees, migrating due to political reasons can experience pull factors, where social networks, which can help provide shelter, work, assistance with integration in society and other support; and during the break of Yugoslavia, Slovenia as the most developed part was a popular destination for migrants from other parts of it (IOM, 2003).

Political factors are influenced greatly by globalisation as causes and effects can happen in completely different parts of the world (IOM, 2003). Furthermore, the lasting merging of cultural factors, makes regular migration hard to isolate as a regional phenomenon or to control by national means. Logically, thus, the globalised Generation Z, which has been mostly responding to the questionnaire (currently entering the labour market) is strongly committed to a set of globalised socio-political principles, particularly of equality, diversity and overcoming stereotypes (Francis & Hoefel, 2018).

Previously political determinants such as political instability and corruption are mentioned in this empirical research. As established, political factors in Chapter 4 taken into analysis were bureaucratic procedures and political conditions (corruption, respect for diversity). The research suggests Slovenian STEM students do not feel pushed abroad by long and complicated bureaucratic procedures (1.90), however, they believe the opposite (short and simple) bureaucratic procedures of a destination country influence their decision to migrate towards it (3.80), while a higher importance is assigned to the political conditions as a push factor. Nevertheless, students assign a low score (2.18) to satisfaction with the bureaucratic procedures and a low score (2.50) to the political conditions factor. While only 11% of respondents picked changed political reasons as a factor for them to consider staying in Slovenia, and only 8% of respondents picked bureaucratic procedures our findings were interesting concerning the comparison between STEM and non-STEM respondents. STEM students think the importance of political factors as push factors larger while non-STEM respondents indicated political factors as pull were more important.

The political, economic and social faces of Slovenia have changed substantially during the 2008 crisis period. Furthermore, the ability of citizens to influence important political decisions has been diminished, instability has become endemic and social solidarity has been eroded (Vobič, Slaček Brlek, Mance, & Amon Prodnik, 2014, p. 77). Corruption and

corruption perception are culturally conditioned, while the living conditions from existential problems to political freedoms are involved.

Slovenian specificity adds socio-political reasons, set deep down in the collective thinking as Slovenians emphasise – too much bureaucracy, nepotism, corruption and clientelism were all reasons the respondents do not see the change in Slovenia for the better. Political corruption is a serious threat to the consolidation of democracy (Mungiu, 2006). In the sections presented before, Slovenia's Corruption Perception Index scored 56 points in 2022, where on a scale from 0 to 100 corruption is measured, while the largest number there is, the less corruption there is perceived in the country. Furthermore, the emigrants emphasise that politics is backwards looking and narrow-minded, while some even feel systematically discriminated against (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022). Considering the historical aspect of Slovenia – it is a young liberal democratic country, established in 1991 from a socialist past common with some other countries previously forming the Socialist Federative Republic of Yugoslavia. Nevertheless, the backwards-looking actions can be confirmed as concerns have been raised over the possible link between the growing political polarisation and fears of autocratisation in Slovenia. Slovenia has experienced massive increases in both ideological and affective polarisation on the levels of the citizenry and political parties as well as worsening of liberal democracy and judicial constraints on the executive indices (Malčič, 2023).

Furthermore, political polarisation has developed since its independence as we observe an increase in ideological and affective polarisation over the past 30 years as ideological polarisation of individuals has doubled since 1992, while the ideological polarisation of political parties has also doubled between 2002 and 2019, which indicates a country is divided into two opposing, rival political camps that interact in a hostile manner with major clashes of views regarding all key political issues, while a drop of affective polarisation appears only in 2022 and we cannot be sure if the trend will continue (Malčič, 2023).

Clashes of political polarization can be seen looking back at the times of the pandemic when the citizens of Slovenia gathered every week for 71 consecutive weeks to protest against the at the time governing parties and their way of governance. The polarization is apparent as while the protesters accused the governing parties at the time of extreme right-wing, even nazi actions, the governing parties accused them of pro-communist behaviour, deepening the tensions between the two camps (Kosmač, 2021). As Generation Z possesses, based on the theory mentioned, extremely different values to the practices presented, it is safe to say, a brain drain of the skilled labour force due to their disagreements with the governing systems, is possible, consequently, there is a possibility of further research to fill the gap in this field.

5.2.4 Environmental factors

As discussed in the theoretical part of this research by Li et al. (2020), environmental pollution, air quality and diminished ecosystem vitality are important factors of brain drain from the source countries, furthermore, they consider environmental changes as increasing the importance of migration and as such it is relevant to include them in the research. The results, nevertheless, show environmental factors considered (air quality, environmental awareness) to be a much stronger pull factor as it was also expected as Slovenia is, as the beforementioned, a country with strong environmental standards and good water quality. Thus, a mean score (3.53) is assigned by the respondents of STEM fields of study, for environment in a role of a pull factor of migration. The respondents were quite satisfied with environmental awareness measured in the country (3.26), while a high share of STEM students indicated environmental awareness (46%) and the quality of air (42%) as the reasons they have not thought about moving abroad.

On the other hand, STEM respondents not a lot of respondents consider the improvement of Slovenian environmental factors mentioned as a deciding factor for them to return to their origin country in case they moved abroad (3%), as is also expected since the higher mean value is assigned to pull rather than to push factors.

Environmental factors are due to climate change becoming an increasingly global issue and an instigator of migration. KNOMAD (2022b) mentions climate impacts on mobility due to issues, such as the increase in average temperature and heat stress, water scarcity, desertification, land degradation, melting glaciers, sea level rise, and flooding.

The environment has always been a driver of migration, as people flee natural disasters, such as floods, hurricanes and earthquakes. However, climate change is expected to exacerbate extreme weather events, meaning more people are expected to migrate due to that. The estimations of climate migrants are tough due to poverty, population growth, governance, human security and conflict, while the estimates vary from 25 million to one billion by 2050 (European Parliament, 2023).

Our respondents were satisfied with the environmental awareness and the air quality in Slovenia. Nevertheless, air pollution is the most serious environmental hazard in Europe and around the world, and additionally one of the five major risk factors for non-communicable and chronic diseases. As European Environment Agency emphasises, in Europe poor air quality yearly kills roughly 400,000 people (European Environment Agency, 2019), furthermore, air pollution affects nearly nine out of ten people who live in cities (Guillerm & Cesari, 2015).

According to the Resolution on the National Environmental Action Programme 2020-2030 (ReNPVO20-30), Slovenia can achieve environmental and sustainable excellence to provide current and future generations in Slovenia with a high-quality life, based on the

planet's capacities. (Ministry of the Environment, Climate and Energy, 2023), nevertheless, one should not be resting on the laurels but continue to act in the planned way as globally the planet's future is getting more endangered yearly. Rising pressures from climate change will in the future both drive increases in migration and impair the livelihoods of those who lack the resources necessary to move (KNOMAD, 2022a).

5.2.5 Technological factors

A highly selective nature of migrations mostly concerns people with better labour market perspectives, thus individuals with high levels of human capital are more likely to migrate (Fratesi & Riggi, 2007) Furthermore, Bartolini et al., (2017) argue, a growing concern is already arising in Southern EU labour markets, not being able to absorb the highly skilled STEM labour force they educated, while the overall shortages in EU in these fields exist (Campanella, 2014). The technological aspect of these fields can and should be considered even more as nowadays members of Generation Z are used to being connected at all times and have instant access to everything everywhere (Sidorcuka & Chesnovicka, 2017), due to the globalised world, the factor of having the access to the latest technology and being able to approach innovations is severely more important.

As established, knowledge workers are the main contributors to knowledge creation, which drives economic growth. To achieve it, superior technology as a part of the working environment can affect knowledge as a factor of migration (Astor et al., 2005), As Slovenia reaches a mediocre digital competitiveness rating, technological factors can be exploited by superior countries to attract Slovenian skilled labour force, dealing with modern technology. Here Denmark, the US and Sweden were placed in the first three places, Switzerland, Singapore and the Netherlands followed right after, while, as discussed before, Central and Northern Europe is seen as technologically very advanced and as such a desirable region to migrate to. The results of the research show, technological factors are recognised as moderately strong pull factors (3.94); thus the respondents of the STEM field desire to migrate, not as much for the lack of Slovenian technological advancement but rather due to the already established status of a technological advanced destination countries such as Switzerland, Germany, the US and the UK. Furthermore, Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., (2022) discover a high share of Slovenian respondents that have already emigrated, indicating the reason for not returning to Slovenia to be in the high standard of technology, accessible to them in their destination country. Even though Slovenia is considered a moderate innovator and performs above the EU average on the European innovation scoreboard, the authors of the report emphasise, that Slovenia's performance for government support for business R&D and non-R&D innovation expenditures strongly decreased between 2015 and 2022 by 9% points (European Commission, n.d.), thus it should be more focused to provide the necessary technology infrastructure.

Certainly, other push and pull determinants are affecting the young highly skilled labour force's decisions on whether to migrate from Slovenia. However, the above-mentioned

represent the main determinants among the Slovenian youth to emigrate, based on the formation of the findings of the questionnaire designed for this master's thesis.

5.3 Recommendations and limitations of the research

As presented in Chapter 4, at least 19% of respondents pursue Master's degree studies while an even higher share of respondents from other groups has decided to move outside Slovenia or live abroad already. That share of respondents is worrisome as these respondents have already set to leave to the countries abroad. Slovenian government, however, can still work on cooperating with them or attracting similar groups of respondents back as well as attracting and retaining international migrants from abroad to compensate for the loss of Slovenian human capital. Our suggestions for the Slovenian government are presented in the next subchapter.

5.3.1 Policy recommendations

The highly skilled labour force is motivated to remain with social support, all else being equal, and social support at home can, therefore, be an inhibitor of emigration (WHO, 2006; Fouad et al., 2015; Kizito et al., 2015). Furthermore, after providing basic safety and financial security, and if social support exists at home, low and middle-income countries can, according to Dohlman et al., (2019) best motivate their highly educated cadre to remain in the country of training by making their practice more financially secure and professionally satisfying.

The findings of this master's thesis can be used as additional information for the Slovenian government due to the high importance of the topic. Meaningful changes to influence the highly skilled labour force in Slovenia need to be implemented to make an effect on the population pre-migration i.e. students of Slovenian universities. It was established before, migration is good for individuals as well as the society as a whole, however, the loss of the migrating individuals needs to be limited.

Talented individuals from Slovenia and outside can help the country achieve its skill demands and inject new knowledge, technology, and innovations into the economy by attracting and retaining them. In 2017, according to the data (OECD, 2017a), only a small portion of Slovenia's foreign-born citizens had advanced degrees and a growing number of Slovenians with postsecondary education was migrating at the same time, which was not being matched by an influx of postsecondary educated persons.

As established, several interconnected factors affect the decisions of the highly skilled Slovenian future labour force whether to emigrate, while there are clear motivators, such as the standard of living, employment opportunities, workplace conditions and socio-cultural conditions, as well as due to the lack of modern technological equipment in Slovenia in comparison to the Northern and Central Europe. Our findings indicate Slovenia is a country with

well-established social conditions for individuals, however, it lacks incentives for a young skilled labour force, searching for good working conditions and an incentivised environment. Institutions and decision-makers are advised to create long-term mechanisms and strategies, to investigate how to retain a highly skilled labour force in the country. Scholars mention it is not rare, for qualified migrants to return to their home country after some time living abroad, most commonly due to improvements in the economic situation and better conditions in the labour market (Krasulja, Vasiljević Blagojević, & Radojević, 2016), while, according to others, the more time spent abroad and the more money earned abroad positively correlates with the start of entrepreneurial activity (Dustmann & Kirchkamp, 2001).

Even though unemployment is not as big issue according to the official data, more employment opportunities could mean a promotion possibility that is missing in another job or a possibility to employ a highly skilled foreigner in Slovenia to make up for the loss of emigrated individuals. The brain drain issue should be communicated to the young professionals at universities, with a clear approach to encouraging added value activities abroad, such as pursuing education, while retaining the Slovenian labour force in the country. According to OECD (2017a), the Slovenian earning potential of highly skilled individuals is very low, which is partly due to the country's unusually expensive social security contributions. High-skilled immigrants struggle to obtain work in Slovenia and get little assistance in their hunt as Slovenia only draws a tiny number of international students (partly due to the expensive tuition and the absence of English-language course options) (OECD, 2017a).

Brain drain in Slovenia has come into the popular discourse as well. As a journalist Intihar (2023b, p. 4) emphasises, methods for dealing with emigration are many and depend on various characteristics. Among the analysed countries in her article, some countries have established tax relieves for returning, others, capital relieves for investments made by expatriates and starting businesses in their country while another group tried introducing looser bureaucratic procedures, and certain countries offer incentives such as offer of employment and reimbursement of travel costs caused to get to a job interview (Intihar, 2023b, p. 4). As attitudes of students can be changed, the inclusion of the care for an internally cohesive "single Slovenian cultural space", consisting of Slovenians in Slovenia and abroad is proposed to be included in school curricula and media, while adequately informing and providing adequate information about life in different dimensions of Slovene identity as well as about the brain phenomenon in Slovenia as that is an established way for Slovenian diasporas to be more connected to their origin country (Valentinčič, Pehar Senekovič, Zagorc, Filipovska et al., 2022).

A partial removal of bureaucratic obstacles to encourage return and to keep up-to-date information about Slovenians abroad is advised by establishing a one-stop point for providing relevant information to those interested in returning to Slovenia. Countries that lead the way in de-bureaucratization and digitalisation, such as Estonia, can be points of reference when de-bureaucratizing the applications of Slovenians, that wish to return home.

Job opportunities can be offered via additional programmes and adaptation of legislation to provide those interested in returning to Slovenia with additional opportunities to pursue their professional careers and settle in Slovenia. For that, a concrete long-term strategy is advised, coordinated with the ESS centre and changing based on the expected demand for the labour force in Slovenia. As the centre of governance and capital is in the capital city Ljubljana, that is being shown in all fields of life, while the evermore tougher issue of access to additional finance funding persists, which is why regionalisation and decentralisation is important (J., 2023). New job opportunities can also be created by the process of decentralisation and deconcentration of the governmental offices. That way, employment opportunities would be created outside the most populated cities, while simultaneously the housing issue could be solved easier as the highly skilled labour force could move to suburbs to rent housing closer to their employer's offices (Valentinčič, Pehar Senekovič, Zagorc, Toplak et al., 2022, p. 19).

Financial incentives, as well as tax relieves can stimulate interest in the return of expatriates, which can be done by encouraging business investments in research and its translation into practice as is the practice in some developed countries (e.g. no taxation of profits allocated by the company to a foundation/fund to finance research) (Valentinčič, Pehar Senekovič, Zagorc, Toplak et al., 2022). This would simultaneously encourage successful businesses and introduce rewarding to the hard-working highly skilled labour force, while gradually decreasing tax relieves could be introduced to the returning migrants, working abroad for a certain period, provided they undertake to remain in Slovenia for a certain period).

Highly skilled workers can create networks in the area they work in, while they also acquire additional or new knowledge and skills (Beine et al., 2008). Furthermore, "the sending countries" should stimulate the highly skilled labour force to become a part of the brain gain process rather than ensuring they do not leave the country by preventing brain drain itself (Horvat, 2004). Emigrants might have their centre of activities abroad and might not even be interested in returning, however, their knowledge and skills can still be useful to their home country. Part-time project cooperation of Slovenian researchers with the universities in Slovenia as well as financing of schemas, encouraging Slovenian science institutions to cooperate with Slovenian professors abroad, while more active process cooperation with Slovenian associations of civil society is advised.

From a different angle, migrations can be mitigated by introducing other longterm measures to curb migration and retain the highly skilled labour force in Slovenia. Towards this goal, dealing with the indicated lack of housing is advised, especially for younger individuals. An appropriate strategy is needed, where an example can be found in Poland, which offers several spots for apartments to returning migrants (Intihar, 2023b, p. 4).

Slovenia as a country from which many people have emigrated and will continue to do so in the future, should, according to Klinar (1993) build its emigration policy based on positive selection, which would not be primarily built on administrative regulations but rather on

socio-economic regulations. He argues, that significant effort should be made to curb the impending brain drain and the loss of development catalysts from its environment, while cooperation with its emigrants could and should be encouraged as there exist numerous institutions such as the Slovenian Congress, Slovenian Emigrant Association and similar, working in this direction, and there are still great opportunities for many other institutions as in today's globalised world, not every migrant is lost to the origin society as cooperation with emigrants is much easier to establish. Nevertheless, Slovenia needs to prioritize enhancing its collaboration with the destination countries (Klinar, 1993, pp. 649-650). This entails increasing awareness of the challenges faced by our emigrants, their legal status, and their rights in specific contexts as collaboration is limited (Kinar, 1993, p. 649). Additionally, acknowledgement of various international organisations, such as OECD, UNHCR, IOM etc., dealing with migration issues is necessary due to active involvement in projects, discussions, and research on the topic of migration, where it is important, Slovenia advocates for the implementation of measures for crisis prevention and promotion of the development of the underprivileged regions. Based on the above, Table 7 represents policy recommendations based on the research.

Table 7: Policy recommendations

Issue	Findings in the thesis	Policy recommendation
Retention of highly educated labour force in Slovenia.	Reluctant attitudes towards current salaries and taxation (pp. 40-47) by STEM respondents.	- Financial incentives and tax reliefs for highly educated professionals to encourage them to stay via reducing income tax rates for a certain time or offering deductions for research-related expenses.
	Lack of career growth and unsuitable working conditions are important reasons for leaving Slovenia, attitudes towards working conditions are strong as push and pull factors (p. 32, p. 49).	- Professional development opportunities by establishing programs that provide continuous professional development opportunities for highly skilled individuals, via partnerships with universities, research institutions, and industries. - Improvement of working conditions by investing in modern technological equipment, creating a conducive environment for innovation.
	Time abroad positively correlates with the start of entrepreneurial activity (p. 60).	- Encourage entrepreneurship by developing policies that support entrepreneurship, offering funding, mentorship, and regulatory support for start-ups and by the STEM highly skilled labour force.

(table continues)

Table 7: Policy recommendations (cont.)

Issue	Findings in the thesis	Policy recommendation
Attraction of (in Slovenia) highly educated labour force back to Slovenia.	Lack of employment opportunities is mentioned as an important factor on several occasions (pp. 46-48, p. 53).	<ul style="list-style-type: none"> - Establishment of job placement programmes for highly skilled Slovenian expatriates, offering work and cooperation opportunities. - Investment in research and innovation, creating an attractive environment for skilled professionals to return and engage in areas, suitable to their profession. - Introduction of reverse brain drain scholarships for individuals or grants for companies to allow STEM Slovenians abroad, to pursue higher education or contribute to the field of research and innovation in Slovenia.
	Several respondents mentioned the issue of access to affordable housing (p. 51).	<ul style="list-style-type: none"> - Introduce a property tax to get a higher supply of housing (e.g. Poland), reserved rooms for young, educated emigrants would encourage returning to Slovenia.
Ensuring or increasing emigrants' cooperation with Slovenia.	Cooperation and membership in expatriate association can be improved (p. 41, p. 62).	<ul style="list-style-type: none"> - Encourage memberships and promote migrant engagement associations for the Slovenian diaspora to share knowledge, and collaborate on projects with institutions and individuals in Slovenia. - Establish collaborative research projects between emigrants and Slovenian universities or research centres. - Develop mentorship programs where experienced emigrants can guide and support emerging professionals in Slovenia.
Ensuring or increasing emigrants' cooperation with Slovenia.	Slovenian researchers are eager to cooperate part-time with the universities in Slovenia (Valentinčič, Pehar Senekovič, Zagorc, Toplak et al., (2022, pp. 60-62).	<ul style="list-style-type: none"> - Promote research collaboration by establishing initiatives that encourage collaboration between Slovenian professionals abroad and institutions within the country.

Source: own work; Valentinčič, Pehar Senekovič, Zagorc, Toplak et al. (2022).

5.3.2 Limitations of the research

Regarding the primary research conducted, even though hundreds of responses were gathered, the sampling method left out potential respondents who do not use Facebook or are not members of specific Facebook groups contacted. The problem of accessing potential respondents was also among certain faculties that did not agree with distributing the questionnaire for different reasons, while some faculties did not have any groups of students on social media or had physically prevented a distribution. That being said, it is clear, several hundreds of respondents provided us with an overview that is representative enough and can provide the answers to the research questions. The decision to distribute the questionnaire among the students instead of among the emigrated working population was made due to the lack of responses and the inability to gather enough respondents to collect a representative sample of the Slovenian working population abroad. That decision has changed the respondents' viewpoint to be looking ahead for the reasons instead of reflecting on them, thus the reflected answers do not present the experience, but rather the respondents' attitudes towards the factors.

Nevertheless, the capture of the students' thinking in the process of their decision-making, provided an important aspect that the previously described sample could not provide, as the goal was to capture the respondents' thinking in the process of their decision-making rather than address migration in the past.

The results, however, indicate the contrary to our assumptions that STEM students would follow higher level needs, as the financial factors were still the most important in our STEM sample. Should the questionnaire be distributed among the working population in the STEM field, the results might confirm our mentioned assumption.

Students from surveyed universities represent a large part of the student population, including STEM as well as non-STEM fields of study with an aim of a comprehensive overview. The questionnaire was prepared only in Slovenian, as I aimed at the Slovenian population, however through further research, I discovered Slovenia is not very successful in retaining the human capital that arrives in Slovenia from abroad (OECD, 2023b). This aspect of using the Slovenian education system as a relatively low-cost mean to achieve a high-quality education in many cases serves only as a springboard to move to other European countries, where Slovenia loses its valuable labour force as well as the funding of their education. Translation into English could give a richer insight, allowing to research why foreign students do not retain in Slovenia.

Yet another limitation is the issue with cooperation as the internet users – respondents – are continuously targeted by irrelevant messages which decrease the possibility and their interest in participating in the online surveys. Henceforth, the online survey conducted is absent of the interviewer leaning on the honesty and understanding of the respondents.

Based on the objectives of this research, the questionnaire could have more respondents and the representation could be higher among other universities as well. Due to the issue of access, I have focused on approaching students and focusing on their opinions, however, an interesting and valuable aspect could be reached by seeking and surveying Slovenian migrants. Nevertheless, that approach needed to be abandoned due to issues of access. As the vast majority of students in Slovenia are Slovenians, the questionnaire was prepared in the Slovenian language, which has made our sample less diversified.

CONCLUSION

The global phenomenon called brain drain appears as people stream for better employment possibilities, higher standard of living, and better possibilities for career development, with the best possible benefits. There are many reasons which affect the decision to move abroad, which can be reflected in the differences between the political situations of the countries or the quality of life, seen through education, healthcare and social services. Furthermore, understanding the aspirations of the future highly skilled labour force is important when developing effective employment policies, otherwise, employment policies aiming to “match” skills with labour market opportunities may continue to fail young people (Gardiner & Goedhuys, 2020).

Recent research on migration carries controversies, particularly regarding its impact on the home country, as traditionally migration has been perceived as a “one-way trip,” leading to the loss of qualified personnel, in whom the country has invested significant resources. Additionally, migrants often take their assets when potentially leaving their home country in a disadvantaged state. However, as presented in this thesis, the situation is not as black and white as it is being painted, while the migration of highly educated individuals can in fact result in low costs and substantial benefits for the country of origin with a correct approach. Overall, brain drain is a complex issue with multiple factors contributing to the migration of skilled workers from one country to another. The concept of migration in general and the concept of brain drain as migration of highly skilled labour force have been widely studied and discussed since the last century, while the phenomenon was relatively rare prior to the second world war, however, has accelerated through the advancement in technology, as well as, according to Redek, Ograjenšek, Sambt, & Mihelič (2011, p. 648) changes in the process of production, increased role of human capital as well as political and social changes, which were all factors that increased the share of highly skilled migrants.

There is plenty of research about economic factors of migration as literature review suggests. A number of scholars discussed various economic reasons among several geographical regions and the role of these factors prompting migration (e.g. McInnis in Stone, 1969). Migration is too often simplified as exclusively economically motivated as several studies on which this argument is based result from either retrospective questioning of migrants or aggregate data (Winchie & Carment, 1989). This assumption suggests, there is a distorted view

due to the lack of research and understanding of nonmonetary factors as they are important instigators of migration among well-educated international migrants as well (Winchie & Carment, 1989). Consequently, this research has focused on the brain drain of highly educated labour force from the STEM field by measuring the attitudes of young students at Slovenian universities, where parallels with Maslow's theory of needs were sought with an emphasis on non-financial motivational factors of migration. This thesis provides a comprehensive overview of students' attitudes toward their migration outside Slovenia, from the perspective of students at Slovenian universities as the future highly skilled labour force.

Furthermore, the established research is more or less focused on the financial motives of migrants, where Slovenia can hardly compete with much richer countries. Established theory findings suggest, as Maslow's hierarchy of needs states, when higher-order motivational needs like self-actualization and self-esteem are satisfied, people thrive (Maslow, 1958). Based on the latter finding, I assumed STEM field highly educated students will, as they belong to the fields, known for offering prosperity and high income, value self-actualization, self-fulfilment, family and social needs highly, thus not value financial reasons as high when considering migration. My assumption was not entirely confirmed, as STEM students valued the importance of financial factors more than non-STEM students. However, the core assumptions behind this thesis were proven correct: non-financial factors do play a significant role in the decision-making calculus, and as such cannot be excluded from any sound analysis or policy tackling brain drain.

The number of emigrants is constantly rising, and it reached 21 000 in 2021, while 2700 (more than 12%) of emigrants were highly educated, meaning they obtained at least a university degree. Slovenia is a developed country, increasingly experiencing brain drain in the last years as the phenomenon is also attracting Slovenian media's attention. Factors of brain drain, as discussed, can be either of a pull (factors of attraction) or a push nature, which are factors with negative connotations, typical for less developed countries, making people leave due to the bad conditions in their origin country. As expected, Slovenia reached higher scores when pull factors were measured.

This thesis has shed light on several important findings. First, an important finding suggests non-financial factors contribute as important elements for migration, no matter the background of potential migrants. However, despite the significance of non-financial factors, the most important reasons of migration remain of an economic nature, while work-related reasons still have a significant role among the reasons for migration to various destinations. Non-financial reasons, in that sense, while significant in their own right, do not have a comparatively stronger importance on the decision to migrate to desired destination countries by STEM respondents as the mean value assigned to non-financial factors by them was lower than the mean value assigned to financial factors.

Different non-financial factors are considered in different manner. As Slovenia is an environmentally clean country and does not suffer from excessive natural disasters,

environmental reasons are not important, when STEM students consider going abroad (Figure 19) but are important as the reasons for not considering it (Figure 18).

Political reasons (corruption, respect for diversity) were identified as important reasons for our respondents to leave Slovenia. “Political conditions” was the only stronger push factor for STEM field students. Furthermore, Slovenian mentality is a recognised factor that would contribute to the decision of STEM students to stay or return to Slovenia while additional important identified reasons by the respondents were lack of affordable housing, lack of meritocracy and an unsuitable environment for entrepreneurs.

These conclusions that result of the analysis show Slovenia has some gaps among the social dimensions, while on the other hand, it is perceived as a suitable country to live in. It is clear, the results of the research are specific for this research. Should the questionnaire be distributed among the working population in the STEM field, the results might confirm our mentioned assumption. Going forward, a thorough analysis of possibilities for retention of highly skilled professionals, as well as attraction of international cadre is recommended, while cooperation with the Slovenian diaspora should not be neglected but increased. I advise ensuring a long-term national strategy regarding the brain drain issue. Slovenia has a big potential to cooperate with its diaspora communities all over the world, however, the government, in cooperation with business and civil society, needs to provide more adequate policies as current incentives are not sufficient. The measures, suggested in this thesis are only obvious steps, that need to be taken, based on the results of the research, however in the future, a strategic approach is required.

REFERENCE LIST

1. Adams, W. (1968). *The brain drain*. New York: Macmillan.
2. Altbach, P. (2004). Higher education crosses borders. *Change*, 36(2), 18-25. <https://doi.org/10.1080/00091380409604964>.
3. Altbach, P. (2013). Brain Drain or Brain Exchange: Developing Country Implications. *International Higher Education*, (72), 2-4. <https://doi.org/10.6017/ihe.2013.72.6095>.
4. Ambrož, N. (2022, 8 November). (INFOGRAFIKA) Beg ali kroženje možganov: Kako problematično je odseljevanje iz Maribora? *Večer*. Retrieved 10 August, 2023 from <https://vecer.com/maribor/aktualno/infografika-beg-ali-krozenje-mozganov-kako-problematicno-je-odseljevanje-iz-maribora-10320549>.
5. Ashby, H. (2023). *Why Millennials Aren't as Materialistic as People Think* [published on blog]. Retrieved 10 August, 2023 from <https://www.thewonderforest.com/millennials-arent-materialistic>.
6. Astor, A., Akhtar, T., Matallana, M. A., Muthuswamy, V., Olowu, F. A., Tallo, V., & Lie, R. K. (2005). Physician migration: Views from professionals in Colombia, Nigeria, India, Pakistan and the Philippines. *Social Science & Medicine*, 61(12), 2492–2500. <https://doi.org/10.1016/j.socscimed.2005.05.003>.

7. Bartolini, L., Gropas, R., & Triandafyllidou, A. (2017). Drivers of highly skilled mobility from Southern Europe: escaping the crisis and emancipating oneself. *Journal of Ethnic and Migration Studies*, 43(4), 652-673. <https://doi.org/10.1080/1369183x.2016.1249048>.
8. Batalova, J. (2022, 21 July). *Top Statistics on Global Migration and Migrants*. Retrieved 10 August, 2023 from <https://www.migrationpolicy.org/article/top-statistics-global-migration-migrants>.
9. Beine, M., Docquier, F., & Rapoport, H. (2008). Brain Drain and Human Capital Formation in Developing Countries: Winners and Losers. *The Economic Journal*, 118(528), 631-652. <https://doi.org/10.1111/j.1468-0297.2008.02135.x>.
10. Bell, S., Alves, S., Silveirinha de Oliveira, E., & Zuin, A. (2010). Migration and Land Use Change in Europe: A Review. *Living Reviews in Landscape Research*, 4. <https://doi.org/10.12942/lrlr-2010-2>.
11. Bencsik, A., Juhász, T., & Horváth-Csikós, G. (2016). Y and Z Generations at Workplaces. *Journal of Competitiveness*, 6(3), 90-106. <https://doi.org/10.7441/joc.2016.03.06>.
12. Bezlaj, M. (2022, 28 May). Papič: Če ne bo sprememb, bomo brezplačno izobraževali kadre za tujino. *Delo*. Retrieved 10 August, 2023 from <https://www.delo.si/novice/slovenija/igor-papic-alarmantno-je-da-najboljsi-mladi-odhajajo-v-tujino/>.
13. Bhardwaj, B., & Sharma, D. (2022). Migration of skilled professionals across the border: Brain drain or brain gain? *European Management Journal*. <https://doi.org/10.1016/j.emj.2022.12.011>.
14. Campanella, E. (2014, 16 October). *Come Home, Europeans*. Foreign Affairs. Retrieved 10 August, 2023 from <https://www.foreignaffairs.com/articles/europe/2014-10-16/come-home-europeans>.
15. Castelli, F. (2018). Drivers of migration: why do people move? *Journal of Travel Medicine*, 25(1). <https://doi.org/10.1093/jtm/tay040>.
16. Clark, W. A. V., & Maas, R. (2015). Interpreting Migration Through the Prism of Reasons for Moves. *Population, Space and Place*, 21(1), 54-67. <https://doi.org/10.1002/psp.1844>.
17. Davenport, S. (2004). Panic and panacea: brain drain and science and technology human capital policy. *Research Policy*, 33(4), 617-630. <https://doi.org/10.1016/j.respol.2004.01.006>.
18. de Haas, H. (2021). A theory of migration: the aspirations-capabilities framework. *Comparative Migration Studies*, 9(8). <https://doi.org/10.1186/s40878-020-00210-4>.
19. de Silva, N., Samarasekara, K., Rodrigo, C., Samarakoon, L., Fernando, S., & Rajapakse, S. (2014). Why do doctors emigrate from Sri Lanka? A survey of medical undergraduates and new graduates. *BMC Research Notes*, 7(918). <https://doi.org/10.1186/1756-0500-7-918>.
20. Dernovšek, I. (2019, 15 January). Vse več mladih Slovencev se izseljuje v Azijo. *Dnevnik*. Retrieved 10 August, 2023 from <https://www.dnevnik.si/1042857607/slovenija/vse-vec-mladih-slovencev-se-izseljuje-v-azijo>.

21. Docquier, F., & Rapoport, H. (2012). Globalization, Brain Drain and Development. *Journal of Economic Literature*, 50(3), 681-730. <https://doi.org/10.1257/jel.50.3.681>.
22. Dohlman, L., DiMeglio, M., Hajj, J., & Laudanski, K. (2019). Global Brain Drain: How Can the Maslow Theory of Motivation Improve Our Understanding of Physician Migration? *International Journal of Environmental Research and Public Health*, 16(7). <https://doi.org/10.3390/ijerph16071182>.
23. Dolenc, K., Šorgo, A., & Ploj Virtič, M. (2021). Signs of a Catastrophe: Predicted Shortage of Teachers of Lower Secondary Science and Technics and Technology in Slovenia. *Revija Za Elementarno Izobraževanje*, 14(2), 239-256. <https://doi.org/10.18690/rei.14.2.239-256.2021>.
24. Dustmann, C., & Kirchkamp, O. (2001). *The Optimal Migration Duration and Activity Choice after Re-Migration*. <https://doi.org/10.2139/ssrn.267199>.
25. European Commission. (n.d.). *European innovation scoreboard*. Retrieved 1 July, 2023 from https://research-and-innovation.ec.europa.eu/statistics/performance-indicators/european-innovation-scoreboard_en.
26. European Environment Agency. (2019, 10 December). *Improving air quality in European cities will bring major health benefits*. Retrieved 10 August, 2023 from <https://www.eea.europa.eu/highlights/improving-air-quality-in-european>.
27. European Environment Agency. (2021, 17 June). *New European city air quality viewer allows you to check long term air pollution levels where you live*. Retrieved 10 August, 2023 from <https://www.eea.europa.eu/highlights/new-european-city-air-quality>.
28. European Parliament. (2023, 2 May). *Exploring migration causes – why people migrate*. European Parliament. Retrieved 10 August, 2023 from <https://www.europarl.europa.eu/news/en/headlines/world/20200624STO81906/exploring-migration-causes-why-people-migrate>.
29. Eurostat. (2023). *Estimated average age of young people leaving the parental household by sex*. Europa.eu. Retrieved 10 August, 2023 from https://ec.europa.eu/eurostat/data-browser/view/YTH_DEMO_030__custom_3133573/bookmark/table?lang=en&bookmarkId=541014f4-4ee7-40d5-8ee3-8f8951f58753.
30. Fouad, Y. A., Fahmy, Y. M., Abdel Hady, S. M., & Elsabagh, A. E. (2015). Egyptian future physicians are packing to leave but may be willing to return. *International Health*, 7(3), 190-194. <https://doi.org/10.1093/inthealth/ihu072>.
31. Francis, T., & Hoefel, F. (2018, 12 November). *“True Gen”: Generation Z and Its Implications for Companies*. McKinsey & Company. Retrieved 10 August, 2023 from <https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/true-generation-z-and-its-implications-for-companies>.
32. Fratesi, U., & Riggi, M. R. (2007). DOES MIGRATION REDUCE REGIONAL DISPARITIES? THE ROLE OF SKILL-SELECTIVE FLOWS. *Review of Urban & Regional Development Studies*, 19(1), 78-102. <https://doi.org/10.1111/j.1467-940x.2007.00125.x>.
33. Gardiner, D., & Goedhuys, M. (2020). *Youth Aspirations and the Future of Work: A Review of the Literature and Evidence*. Geneva: ILO.

34. Gayle, L. (2019, 22 August). *How Generation Z Is Transforming the Workplace*. Financial executives. Retrieved 10 August, 2023 from <https://www.financialexecutives.org/FEI-Daily/August-2019/How-Generation-Z-Is-Transforming-the-Workplace.aspx>.
35. Genç, M. (2014). The impact of migration on trade. *IZA world of Labor*. <https://doi.org/10.15185/izawol.82>.
36. Gibson, J., & McKenzie, D. (2011). Eight Questions about Brain Drain. *The Journal of Economic Perspectives*, 25(3), 107-128. <https://doi.org/10.1257/jep.25.3.107>.
37. Gole, N. (2022, 19 November). Med zebrami in ogrizenimi jabolki. *Delo*. Retrieved 10 August, 2023 from <https://www.delo.si/sobotna-priloga/med-zebrami-in-ogrizenimi-jabolki/>.
38. Guillerm, N., & Cesari, G. (2015). Fighting ambient air pollution and its impact on health: from human rights to the right to a clean environment. *The International Journal of Tuberculosis and Lung Disease*, 19(8), 887-897. <https://doi.org/10.5588/ijtld.14.0660>.
39. H., K. (2022, 11 December). Večina izseljencev razmišlja o vrnitvi, a si želijo boljših možnosti. *24ur.com*. Retrieved 10 August, 2023 from <https://www.24ur.com/novice/slovenija/vecina-izseljencev-razmislja-o-vrnitvi-a-si-zelijo-boljsih-moznosti.html>.
40. Hacler, T. (2015, 9 January). "Inženirjev ni dovolj, saj je prevladovalo, da se bomo vsi ukvarjali s financami in trgovino". *Rtvslo*. Retrieved 10 August, 2023 from <https://www.rtvsl.si/uspesna-slovenija/inzenirjev-ni-dovolj-saj-je-prevladovalo-da-se-bomo-vsi-ukvarjali-s-financami-in-trgovino/354809>.
41. Horvat, V. (2004). Brain drain. Threat to successful transition in South East Europe. *Southeast European Politics*, 5(1), 76-93. Retrieved 5 August, 2023 from https://www.researchgate.net/publication/240631475_Brain_Drain_Threat_to_Successful_Transition_in_South_East_Europe.
42. Hunt, J. (2006). Staunching emigration from East Germany: Age and the determinants of migration. *Journal of the European Economic Association*, 4(5), 1014-1037. <https://doi.org/10.1162/JEEA.2006.4.5.1014>.
43. IMD. (n.d.). *World Digital Competitiveness Ranking*. *Imd.org*. Retrieved 10 August, 2023 from <https://www.imd.org/centers/wcc/world-competitiveness-center/rankings/world-digital-competitiveness-ranking/>.
44. Intihar, A. (2023a, 3 June). Mladih ne zanimajo stare zamere. *Delo*. Retrieved 10 August, 2023 from <https://www.delo.si/mnenja/komentarji/mladih-ne-zanimajo-stare-zamere/>.
45. Intihar, A. (2023b, 3 June). Pri vsakem izseljenem je škoda enaka. *Delo*, 4.
46. IOM. (2003). *Migration Trends in Selected Applicant Countries*. Vienna: International Organization for Migration.
47. IOM. (2022). World Migration Report 2022. In M. McAuliffe & A. Triandafyllidou (Eds.), *Publications.iom.int*. Geneva: International Organization for Migration.
48. J., A. (2023, 30 March). Center moči in kapitala je Ljubljana, in to se vidi na vseh področjih življenja, tudi v kulturi. *Rtvslo*. Retrieved 10 August, 2023 from <https://www.rtvsl.si/kultura/drugo/center-moci-in-kapitala-je-ljubljana-in-to-se-vidi-na-vseh-podrocjih-zivljenja-tudi-v-kulturi/663106>.

49. JOBS, G. (2020). *Stem and the American workforce*. Retrieved 10 August, 2023 from <https://www.fticonsulting.com/~media/Files/us-files/insights/reports/2020/march/stem-american-workforce.pdf>.
50. Johnson, R. (2016). *Using Maslow's Hierarchy of Needs to Identify Indicators of Potential Mass Migration Events* (master's thesis). Retrieved 10 August, 2023 from <https://apps.dtic.mil/sti/pdfs/AD1017743.pdf>.
51. K., A. (2023, 5 April). Beg možganov: kako učinkovita je država? *24ur.com*. Retrieved 10 August, 2023 from <https://www.24ur.com/novice/slovenija/beg-mozganov-kako-ucinkovita-je-drzava.html>.
52. K., M. (2022, 2 December). Kako pritegniti nadarjene Slovence iz tujine? *24ur.com*. Retrieved 10 August, 2023 from <https://www.24ur.com/novice/slovenija/kako-pritegniti-nadarjene-slovence-iz-tujine.html>.
53. Kizito, S., Mukunya, D., Nakitende, J., Nambasa, S., Nampogo, A., Kalyesubula, R., Katamba, A., & Sewankambo, N. (2015). Career intentions of final year medical students in Uganda after graduating: the burden of brain drain. *BMC Medical Education*, 15(122). <https://doi.org/10.1186/s12909-015-0396-0>.
54. Klinar, P. (1976). *Mednarodne migracije*. Ljubljana: Obzorja.
55. Klinar, P. (1993). Osnove migracijske politike. *Teorija in Praksa*, 30(7/8), 646-650. Ljubljana: Fakulteta za sociologijo, politične vede in novinarstvo.
56. Kline, D. S. (2003). Push and pull factors in international nurse migration. *Journal of Nursing Scholarship*, 35(2), 107-111. <https://doi.org/10.1111/j.1547>.
57. Klipšteter, T. (2023, 29 April). Ali zdravniki res trumoma zapuščajo Slovenijo? *Dnevnik*. Retrieved 10 August, 2023 from <https://www.dnevnik.si/1043022179>.
58. Knez, J., & Dajčman, M. (2022, April 22). (FOTO) Soočenje mladih mariborskih poslanskih kandidatov: Kako lažje do stanovanja, kako bi preprečili beg možganov. *Večer*. Retrieved 10 August, 2023 from <https://vecer.com/maribor/aktualno/foto-soocenje-mladih-mariborskih-poslanskih-kandidatov-kako-lazje-do-stanovanja-kako-bi-preprecili-beg-mozganov-10279962>.
59. KNOMAD. (2018). *Migration and Development Brief 29*. Retrieved 10 August, 2023 from <https://www.knomad.org/sites/default/files/2018-04/Migration%20and%20Development%20Brief%2029.pdf>.
60. KNOMAD. (2022a). *Migration and Development Brief 36*. Retrieved 10 August, 2023 from https://www.knomad.org/sites/default/files/2022-07/migration_and_development_brief_36_may_2022_0.pdf.
61. KNOMAD. (2022b). *Migration and Development Brief 37*. Retrieved 10 August, 2023 from https://www.knomad.org/sites/default/files/publication-doc/migration_and_development_brief_37_nov_2022.pdf.
62. Knutsen, O. (1989). The Priorities of Materialist and Post-Materialist Values in the Nordic Countries - a Five-Nation Comparison. *Scandinavian Political Studies*, 12(3), 221-243. <https://doi.org/10.1111/j.1467-9477.1989.tb00091.x>.

63. Koponen, H. (2017, July 20). *Poland's controversial judicial reforms and the media*. International Press Institute. Retrieved 10 August, 2023 from <https://ipi.media/polands-controversial-judicial-reforms-and-the-media/>.
64. Kosmač, G. (2021, 27 August). Jenull: Je sprejemljivo, da imajo v Sloveniji neonacisti društvo v javnem interesu? *Rtvslo*. Retrieved 10 August, 2023 from <https://www.rtvsl.si/slovenija/jenull-je-sprejemljivo-da-imajo-v-sloveniji-neonacisti-drustvo-v-javnem-interesu/592057>.
65. Kranjc, M. (2023, 23 January). Gradbeništvo v velikih težavah, tuji delavci pa bežijo. *24ur.com*. Retrieved 10 August, 2023 from <https://www.24ur.com/novice/dejstva/najvecja-groznja-obstoj-slovenskega-gradbenistva.html>.
66. Krasulja, N., Vasiljević Blagojević, M., & Radojević, I. (2016). Brain-drain: The positive and negative aspects of the phenomenon. *Ekonomika*, 62(3), 131-142. <https://doi.org/10.5937/ekonomika1603131K>.
67. Kwok, V., & Leland, H. (1982). An Economic Model of the Brain Drain. *The American Economic Review*, 72(1), 91-100. Nashville: American Economic Association.
68. Lee, E. S. (1966). A Theory of Migration. *Demography*, 3(1), 47-57. Durham: Duke University Press.
69. Li, B., Cheng, S., & Xiao, D. (2020). The impacts of environmental pollution and brain drain on income inequality. *China Economic Review*, 62, 1-17. <https://doi.org/10.1016/j.chieco.2020.101481>.
70. Lofters, A., Slater, M., Fumakia, N., & Thulien, N. (2014). "Brain drain" and "brain waste": experiences of international medical graduates in Ontario. *Risk Management and Healthcare Policy*, 81-89. <https://doi.org/10.2147/RMHP.S60708>.
71. Lowell, B. L. (2003). *Skilled Migration Abroad or Human Capital Flight?* Retrieved 10 August, 2023 from <https://www.migrationpolicy.org/article/skilled-migration-abroad-or-human-capital-flight>.
72. Malčič, M. (2023). POLITICAL POLARISATION IN SLOVENIA AND ITS EFFECTS ON LIBERAL DEMOCRACY. *Teorija in Praksa*, 60(1), 24-47. Ljubljana: FDV.
73. Maslow, A. H. (1958). A Theory of Human Motivation. *Psychological Review*, 50(4), 370. Washington: American Psychological Association.
74. Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., & Pellegrino, A. (1999). *Worlds in Motion: Understanding International Migration at the End of the Millennium*. Oxford: Clarendon press.
75. Massey, D. S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., & Taylor, J. E. (1993). Theories of International Migration: a Review and Appraisal. *Population and Development Review*, 19(3), 431-466. New York: Population Council.
76. Mattoo, A., Neagu, I. C., & Özden, Ç. (2008). Brain waste? Educated immigrants in the US labor market. *Journal of Development Economics*, 87(2), 255-269. <https://doi.org/10.1016/j.jdeveco.2007.05.001>.
77. Maurseth, P. B. (2019). Brain Drain or Brain Gain? *Forum for Development Studies*, 46(1), 195-202. <https://doi.org/10.1080/08039410.2018.1550918>.

78. McInnis, R. M. (1969). Provincial migration and economic opportunity. In Stone L. O., *Migration in Canada*. Ottawa: Dominion Bureau of Statistics.
79. Mencin Čeplak, M. (2006). Values of young people in Slovenia. *Nordic Journal of Youth Research*, 14(4), 291-308. London: Sage.
80. Miklič, E. (2022, 7 September). *Stanovanja, Slovenija, 1. januar 2018*. Stat.si. Retrieved 10 August, 2023 from <https://www.stat.si/StatWeb/news/Index/8160>.
81. Ministry of the Environment, Climate and Energy. (2023, 15 June). *Pollution*. GOV.SI. Retrieved 10 August, 2023 from <https://www.gov.si/en/policies/environment-and-spatial-planning/environment/pollution/>.
82. Mooney, C., Ahmed, N., & Muyskens, J. (2022, 1 December). We looked at 1,200 possibilities for the planet's future. These are our best hope. *The Washington Post*. Retrieved 10 August, 2023 from <https://www.washingtonpost.com/climate-environment/interactive/2022/global-warming-1-5-celsius-scenarios/>.
83. Mungiu, A. (2006). Corruption: Diagnosis and Treatment. *Journal of Democracy*, 17(3), 86-99. Baltimore: Johns Hopkins University Press.
84. Murakami, Y. (2009). Incentives for International Migration of Scientists and Engineers to Japan. *International Migration*, 47(4), 67-91. <https://doi.org/10.1111/j.1468-2435.2009.00564.x>.
85. Murru, M. (2008). Globalization, migration and brain drain: a reality check. health policy and development. *Health Policy and Development*, 6(3), 153-163. Kampala: Uganda Martyrs University.
86. Nathan, M., & Lee, N. (2013). Cultural Diversity, Innovation, and Entrepreneurship: Firm-level Evidence from London. *Economic Geography*, 89(4), 367-394. <https://doi.org/10.1111/ecge.12016>.
87. OECD. (2008). The Brain Drain and Negative Social Effects: When is the Home Country Hurt? In *Policy Coherence for Development 2007: Migration and Developing Countries* (65-78). Paris: OECD Publishing.
88. OECD. (2016). International mobility of the highly skilled. *OECD Science, Technology and Innovation Outlook 2016*. Paris: OECD Publishing.
89. OECD. (2017a). *Skills Strategy Diagnostic Report Slovenia*. Paris: OECD Publishing.
90. OECD. (2017b). *OECD Science, Technology and Industry Scoreboard 2017: The Digital Transformation*. Paris: OECD Publishing.
91. OECD. (2020). *How's Life? 2020: Measuring Well-being*. OECD Publishing. Paris: OECD Publishing.
92. OECD. (2022a). *Education at a Glance 2022: OECD Indicators*. Paris: OECD Publishing.
93. OECD. (2022b). *OECD Education Statistics*. <https://doi.org/10.1787/edu-data-en>
94. OECD. (2022c). *OECD Regional Development Studies*. Paris: OECD Publishing.
95. OECD. (2022d). *International Migration Outlook 2022*. Paris: OECD Publishing.
95. OECD. (2023a). *International Migration Database*. Oecd.Stat. Retrieved 10 August, 2023 from <https://stats.oecd.org/Index.aspx?DataSetCode=MIG#>.

96. OECD. (2023b). *Talent Attractiveness: How does your country compare in each dimension?* Retrieved 10 August, 2023 from <https://www.oecd.org/migration/talent-attractiveness/how-does-your-country-compare-in-each-dimension.htm>.
97. OECD. (2023c). *Taxing Wages - Slovenia*. Retrieved 10 August, 2023 from <https://www.oecd.org/tax/tax-policy/taxing-wages-slovenia.pdf>.
98. Omaswa, F. G. (2014). The Contribution of the Medical Education Partnership Initiative to Africa's Renewal. *Academic Medicine*, 89(8), S16-S18. <https://doi.org/10.1097/acm.0000000000000341>.
99. Phuong, N. Q., & Venkatesh, S. (2015). Does migration make financial sense? The case of domestic workers from Vietnam to Taiwan. *International Journal of Sociology and Social Policy*, 35(11/12), 722-737. <https://doi.org/10.1108/ijssp-10-2014-0080>.
100. Pires, A. J. G. (2009). BRAIN DRAIN AND BRAIN WASTE. *Journal of Economic Development*, 40(1), 1-34. <https://doi.org/10.35866/caujed.2015.40.1.001>.
101. Podobnik, B., Christopher Crawford, G., Lichtenstein, B., Lipic, T., Wild, D., Zhang, X., & Stanley, H. Eugene. (2020). The new wealth of nations: How STEM fields generate the prosperity and inequality of individuals, companies, and countries. *Chaos, Solitons & Fractals*, 141(110323). <https://doi.org/10.1016/j.chaos.2020.110323>.
102. Redek, T., Ograjenšek, I., Sambt, J., & Mihelič, K. K. (2011). *Brain Drain Of Slovenian Young Skilled Professionals: An Imaginary Or Real Threat?* Split: Sveuciliste u Splitu.
103. Reichlova, N. (2005). Can the Theory of Motivation Explain Migration Decisions? <https://doi.org/10.18267/j.pep.298>.
104. Robertson, S. L. (2006). Brain drain, brain gain and brain circulation. *Globalisation, Societies and Education*, 4(1), 1-5. <https://doi.org/10.1080/14767720600554908>.
105. Royal Society. (1963). *Emigration of Scientists from the United Kingdom*. London: Royal Society.
106. Sagaj, M. (2022, 8 December). Ustanovitev Sekcije za startup in scaleup podjetja: Pot do dialoga z vlado. *Večer*. Retrieved 10 August, 2023 from <https://vecer.com/moj-uspeh/ustanovitev-sekcije-za-startup-in-scaleup-podjetja-pot-do-dialoga-z-vlado-10322661>.
107. Şanlıtürk, A. E., Aref, S., Zagheni, E., & Billari, F. C. (2022). *Homecoming after Brexit: evidence on academic migration from bibliometric data*. Rostock: Max Planck Institute.
108. Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (Fifth ed.). London: Pearson Education Limited.
109. Schiff, M. (2005). *Brain Gain: Claims About its Size and Impact on Welfare and Growth are Greatly Exaggerated*. Bonn: IZA.
110. Schmieg, E. (2019). Connections between trade policy and migration. *Stiftung, Wissenschaft Und Politik*. <https://doi.org/10.18449/2019rp15>.
111. Sidorcuka, I., & Chesnovicka, A. (2017). Methods of Attraction and Retention of Generation Z Staff. *CBU International Conference Proceedings*, 5, 807-814. <https://doi.org/10.12955/cbup.v5.1030>.

112. Straubhaar, T., & Vădean, F. P. (2006). International Migrant Remittances and their Role in Development. *The Development Dimension*, 13-37. <https://doi.org/10.1787/9789264013896-3-en>.
113. Strniša, E. (2009, April 27). Kaj za Slovenijo pomeni “beg možganov”? *Rtvslo*. Retrieved 10 August, 2023 from <https://www.rtvsl.si/slovenija/kaj-za-slovenijo-pomeni-beg-mozganov/99476>.
114. Stuart-Shor, E. M., Cunningham, E., Foradori, L., Hutchinson, E., Makwero, M., Smith, J., Kasozi, J., Johnston, E. M., Khaki, A., Vandervort, E., Moshi, F., & Kerry, V. B. (2017). The Global Health Service Partnership: An Academic–Clinical Partnership to Build Nursing and Medical Capacity in Africa. *Frontiers in Public Health*, 5. <https://doi.org/10.3389/fpubh.2017.00174>.
115. SURS. (2022a). *Emigrants by CITIZENSHIP, COUNTRY OF NEXT RESIDENCE, YEAR and AGE GROUPS*. SiStat database. Retrieved 10 August, 2023 from <https://pxweb.stat.si/SiStatData/pxweb/en/Data/Data/05N3210S.px/table/tableViewLayout2/>.
116. SURS. (2022b). *Meddržavni selivci, stari 15 ali več let po: SELITVE, IZOBRAZBA, LETO*. SiStat database. Retrieved 10 August, 2023 from <https://pxweb.stat.si/SiStatData/pxweb/sl/Data/Data/H146S.px/table/tableViewLayout2/>.
117. SURS. (2022c). *Odseljeni prebivalci, stari 15 ali več let, po izobrazbi, državi prihodnjega prebivališča, spolu in državljanstvu, Slovenija, letno*. SiStat database. Retrieved 10 August, 2023 from <https://pxweb.stat.si/SiStatData/pxweb/sl/Data/-/05N3214S.px/table/tableViewLayout2/>.
118. SURS. (2022d). *Working age population by activity and activity rates by COHESION REGION, AGE GROUPS, SEX, MEASURES and QUARTER*. SiStat database. Retrieved 10 August, 2023 from <https://pxweb.stat.si/SiStatData/pxweb/en/Data/-/0762003S.px/table/tableViewLayout2/>.
119. SURS. (2023). *Svetovni dan zdravja*. SiStat database. Retrieved 10 August, 2023 from <https://www.stat.si/StatWeb/News/Index/11016>.
120. Svazas, M., & Liberyte, M. (2019). Brain Drain Impact On The Economy: Baltic States Case. *Social & Economic Revue*, 17(1), 66-76. Retrieved 10 August, 2023 from <https://fsev.tnuni.sk/revue/papers/227.pdf>.
121. Šonc, M. (2022, 30 November). Čez mejo po zdravnike. *Dnevnik*. Retrieved 10 August, 2023 from <https://www.dnevnik.si/1043001929/mnenja/pisma-bralcev/cez-mejo-po-zdravnike>.
122. Transparency International. (2023). *Corruption Perceptions Index*. Transparency International. Retrieved 10 August, 2023 from <https://www.transparency.org/en/cpi/2022/index/svn>.
123. Trenz, H. J., & Triandafyllidou, A. (2017). Complex and dynamic integration processes in Europe: intra EU mobility and international migration in times of recession. *Journal of Ethnic and Migration Studies*, 43(4), 546-559. <https://doi.org/10.1080/1369183x.2016.1251013>.

124. Truscott, M. (1971). *The Brain Drain of Scientists, Engineers, and Physicians From the Developing Countries to the United States*. https://doi.org/10.31390/gradschool_disstheses.2015.
125. UN DESA. (2008). *International Migrant Stock: The 2008 Revision*. Retrieved 10 July, 2023 from <https://esa.un.org/migration/%20index.asp?panel=1>.
126. UN DESA. (2014). *Country Classification*. Retrieved 10 August, 2023 from https://www.un.org/en/development/desa/policy/wesp/wesp_current/2014wesp_country_classification.pdf.
127. UN DESA. (2020). *International Migrant Stock 2020*. Retrieved 10 August, 2023 from <https://www.un.org/development/desa/pd/content/internationalmigrant-stock>.
128. UN DESA. (2021). *International Migration 2020 Highlights*. Retrieved 10 August, 2023 from www.un.org.development.desa.pd/files/undesa_pd_2020_international_migration_highlights.pdf.
129. UN. (2016). *International Migration Report 2015*. Retrieved 10 August, 2023 from <https://www.un.org/en/development/desa/population/migration/publications/migration-report/docs/MigrationReport2015.pdf>.
130. Urad Vlade Republike Slovenije za Slovence v zamejstvu in po svetu. (2022). *Slovenci v Evropi*. GOV.SI. Retrieved 10 August, 2023 from <https://www.gov.si teme/slovinci-v-evropi/>.
131. Val 202. (2016, 28 May). *Stanovanjski problem mladih*. RTV 365. Retrieved 10 August, 2023 from <https://365.rtv slo.si/arhiv/reakcija/174407946>.
132. Valentinčič, D., Pehar Senekovič, A., Zagorc, B., Filipovska, B., Toplak, K., Gostič, M., Vižintin, M., Vižintin, M. A., Lukšič Hacin, M., Sirk, M., & Vah Jevšnik, M. (2022). *Omilitve posledic bega možganov in krepitev mehanizma kroženja možganov: Zaključno raziskovalno poročilo*. Ljubljana: ZRC SAZU.
133. Valentinčič, D., Pehar Senekovič, A., Zagorc, B., Toplak, K., Gostič, M., Vižintin, M. A., Lukšič - Hacin, M., & Vah Jevšnik, M. (2022). *PRIPOROČILA ukrepov za omilitve posledic bega možganov in krepitev mehanizma kroženja možganov*. Ljubljana: ZRC SAZU.
134. Vobič, I., Slaček Brlek, S., Mance, B., & Amon Prodnik, J. (2014). Changing Faces of Slovenia: Political, Socio-Economic, and News Media Aspects of the Crisis. *Javnost - the Public*, 21(4), 77-97. <https://doi.org/10.1080/13183222.2014.11077104>.
135. WHO. (2006). *The world health report: 2006: working together for health*. World Health Organization. Retrieved 10 August, 2023 from <https://apps.who.int/iris/handle/10665/43432>.
136. Williams, A. (2015, 18 September). Move Over, Millennials, Here Comes Generation Z. *The New York Times*. Retrieved 10 August, 2023 from <https://www.ny-times.com/2015/09/20/fashion/move-over-millennials-here-comes-generation-z.html?mcubz=2>.
137. Winch, D. B., & Carment, D. W. (1989). Migration and Motivation: The Migrant's Perspective. *International Migration Review*, 23(1), 96-104. London: SAGE.

138. World Bank. (2022a). *GDP per capita (current US\$) - OECD members*. The World Bank. Retrieved 10 August, 2023 from https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=OE&most_recent_value_desc=true.
139. World Bank. (2022b). *World Bank Country and Lending Groups*. The World Bank. Retrieved 10 August, 2023 from <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>.
140. World Bank. (2023a). *Slovenia Products Exports by country 2020*. The World Bank. Retrieved 10 August, 2023 from <https://wits.worldbank.org/CountryProfile/en/Country/SVN/Year/LTST/TradeFlow/Export/Partner/by-country/Product/Total#>.
141. World Bank. (2023b). *Worldwide Governance Indicators*. The World Bank. Retrieved 10 August, 2023 from <https://databank.worldbank.org/source/worldwide-governance-indicators/Series/PV.EST#>.
142. World Economic Forum. (2016). *The Human Capital Report 2016*. Retrieved 10 August, 2023 from https://www3.weforum.org/docs/HCR2016_Main_Report.pdf.
143. World Economic Forum. (2017). *The Global Human Capital Report 2017*. Retrieved 10 August, 2023 from https://www3.weforum.org/docs/WEF_Global_Human_Capital_Report_2017.pdf.
144. Employment Service of the Republic of Slovenia. (2022). *Poklicni Barometer 2022*. Retrieved 10 August, 2023 from https://www.ess.gov.si/fileadmin/user_upload/Trg_dela/Dokumenti_TD/Poklicni_barometer/SLOVENIJA_2022_a4.pdf.
145. Employment Service of the Republic of Slovenia. (n.d.). *Trg dela v številkah*. Retrieved 10 July, 2023 from <https://www.ess.gov.si/partnerji/trg-dela/trg-dela-v-stevilkah/>.
146. Zupan, F. (2023, 17 March). Kaj bo predvidoma leta 2025 prinesla obdavčitev nepremičnin? *Rtvslo*. Retrieved 10 August, 2023 from <https://www.rtvsl.si/gospodarstvo/kaj-bo-predvidoma-leta-2025-prinesla-obdavcitev-nepremicnin/661666>.
147. Zweig, D., Tsai, K. S., & Singh, A. D. (2021). Reverse entrepreneurial migration in China and India: The role of the state. *World Development*, 138, 105192. <https://doi.org/10.1016/j.worlddev.2020.105192>.
148. Živković, V. (2018, 25 December). *Brain drain: The most important migration issue of the Western Balkans*. Retrieved 10 August, 2023 from <https://europeanwesternbalkans.com/2018/12/25/brain-drain-important-migration-issue-western-balkans/>.

APPENDICES

Appendix 1: Povzetek (Summary in Slovene language)

Globalno gospodarstvo je ob cenovno dostopnejši in manj nepovratni mobilnosti, zaradi različnih ekonomskih, tehnoloških in kulturnih dejavnikov, doživelo porast mobilnosti visokoizobraženih posameznikov – tako študentov kot tudi znanstvenikov in inženirjev (OECD, 2016). Že leta 2015 je bilo ocenjeno število mednarodnih migrantov, ki so se iz različnih razlogov preselili v najrazličnejše, ne nujno države z visokim dohodkom, temveč tudi sosedске ali druge države z nižjim standardom, več kot 244 milijonov (Castelli, 2018).

Priljubljenost določenih destinacij je sicer jasna. Že konec prejšnjega stoletja so bile glavne države gostiteljice ZDA, Avstralija, Kanada, Francija in Nemčija, ki so predstavljale kar 93% vseh migracijskih tokov znanstvenikov in inženirjev med članicami OECD (Davenport, 2004, p. 618).

Glede na to, da so naložbe države v visoko izobražene posameznike običajno največje in da visoko izobraženi posamezniki običajno ustvarjajo največjo dodano vrednost, je nujno preučiti pojav selitve visoko izobraženih posameznikov, ki ga običajno imenujemo beg možganov. Beg možganov iz revnejših v bogatejša okolja je reden globalni fenomen, ki pa ni dovolj raziskan (Dohlman et al., 2019) in, medtem ko je vpliv možnosti zaposlitve ter drugih ekonomskih razlogov jasen, tudi razlogi neekonomske narave igrajo pomembno vlogo pri migracijah kratkih ter dolgih razdalj (Clark & Maas, 2015).

Nadarjeni in sposobni posamezniki imajo ključno vlogo pri blagostanju držav v prihodnosti. Poleg tega zasedajo delovna mesta, ki so ključna za tehnološki napredek, saj zagotavljajo inovacije in prispevajo k močnejši gospodarski rasti z dodatnimi zaposlitvenimi možnostmi in boljšimi življenjskimi pogoji za vse (OECD, 2023b), znanstveniki pa pravijo, da beg možganov za vsako državo pomeni izgubo razvojnega potenciala na vseh področjih, naravoslovcev, tehnikov in zdravstvenih delavcev – raziskovalec Vito Turk celo izpostavlja, da so zdravje, čisto okolje in izdelki z visoko dodano vrednostjo tisti, ki omogočajo univerzalni standard v družbi (Strniša, 2009).

Slovenija lahko svoje potrebe po znanju in spretnostih lažje uresniči z ohranjanjem in privabljanjem nadarjenih ljudi iz Slovenije in tujine, ki ji bodo pomagali vnašati novo znanje, tehnologijo in inovacije v gospodarstvo. Ob tem se je potrebno zavedati, da imajo visokokvalificirani delavci v Sloveniji razmeroma nizke možnosti za zaslužek, kar se deloma odraža v razmeroma visokih prispevkih za socialno varnost (OECD, 2017a). Čeprav se zaskrbljenost zaradi bega možganov pogosto izraža, se zdi, da na institucionalni ravni primanjkuje sistemskih rešitev. Nizke plače ter pomanjkanje sodobnih praks organizacije in upravljanja slovenskih podjetij so le nekateri od razlogov, zaradi katerih se visokokvalificirani delavci morda ne bodo odločili ostati v Sloveniji ali se vanjo vrniti (OECD, 2017a).

Raziskovalci (Dohlman et al., 2019) so vpeljali Maslowo teorijo potreb v preučevanje razlogov za migracijo ter ugotovili, da posamezniki z višjim dohodkom zasledujejo potrebe

višjih ravni, ki so nefinančne narave. Prav tako mlade generacije, kot so Milenijci (ali generacija Z), ne dajejo tolikšnega poudarka materialističnim vrednotam kot prejšnje generacije (Ashby, 2023), nanje pa je še dodatno vplivala globalizacija družbe in trga (Williams, 2015), in medtem ko jih znanstveniki vidijo kot samozavestne, družbeno ozaveščene, sprejemajoče drugačnost in tehnološko spretno (Williams, 2015), vrednote generacije Z (ljudi, rojenih po letu 1995) predstavljajo okrepitev vrednot Milenijcev.

Aspiracije, ki izhajajo iz njihovih vrednot, so empirično opredeljene kot v prihodnost usmerjeno vedenje (Gardiner & Goedhuys, 2020), ter zajemajo prepričanja posameznikov o priložnostih, ki so jim na voljo v družbi, in njihova pričakovanja glede dosežkov v negotovi prihodnosti. Le-ta vplivajo na individualne odločitve o migracijah in sooblikujejo posameznikovo odločitev o selitvi v tujino v želji po zasledovanju lastnih aspiracij.

Da bi zapolnil vrzel raziskovalnega polja, saj ne-finančne motivacije študentov (panog STEM) slovenskih univerz za odhod v tujino še niso podrobno raziskane si v tej raziskovalni nalogi sprva prizadevam osvetliti relevantne koncepte, ki so ključni za razumevanje tematike bega možganov. Magistrsko delo identificira in analizira razloge za beg možganov s perspektive študentov, ki so še v procesu odločanja, na njihove odgovore pa imajo velik vpliv individualne aspiracije ter vrednote (predvsem generacij Y in Z) in prek vzpostavljenih teoretskih okvirjev skuša razumeti kako mladi bodoči visoko izobraženi študenti znanosti, tehnologije, inženirstva in matematike (STEM) dojemajo dejavnike privlačnosti ter odbijanja v povezav s Slovenijo in predlagati konkretne rešitve, ki bi ob implementaciji pripomogle k večji delitvi v tujini pridobljenega znanja Slovencev oz. znižale stopnjo bega možganov.

Appendix 2: Domestic/international students by field of study, OECD total, %, 2020

		Education	Arts and humanities	Social sciences, journalism and information	Business, administration and law	Natural sciences, mathematics and statistics	Information and Communication Technology	Engineering, manufacturing and construction	Agriculture, forestry, fisheries and veterinary	Health and welfare	Services
AUS	International	4	6	3	46	4	14	12	1	11	1
	Domestic	11	12	9	23	7	4	8	1	24	2
AUT	International	5	14	16	20	11	5	16	2	9	1
	Domestic	14	9	7	25	8	5	17	1	9	4
BEL	International	3	14	13	12	6	2	12	5	32	2
	Domestic	10	8	10	24	4	4	11	2	26	2
CAN	International	1	7	9	28	13	10	18	1	5	5
	Domestic	5	10	12	20	11	5	10	1	17	5
CHE	International	5	13	12	19	17	5	18	0	9	3
	Domestic	11	8	8	26	7	4	14	1	18	3
CHL	International	5	4	5	34	5	6	18	2	17	4
	Domestic	11	4	5	22	2	4	21	3	22	5
COL	International	6	9	15	28	2	3	17	2	16	2
	Domestic	8	4	12	36	2	5	21	3	7	3
CZE	International	2	10	10	21	8	11	13	3	18	4
	Domestic	14	9	9	19	6	5	14	4	13	7
DEU	International	2	14	8	18	11	10	29	2	7	1
	Domestic	9	12	8	24	9	7	19	1	9	3
DNK	International	2	10	9	28	7	8	21	2	9	4
	Domestic	8	10	9	23	5	5	11	1	25	2
ESP	International	4	9	12	26	5	3	12	2	22	5
	Domestic	12	11	10	20	6	6	13	1	16	6
EST	International	3	14	10	36	7	12	11	4	4	0
	Domestic	8	13	6	20	6	10	15	2	14	6
FIN	International	3	10	4	23	6	19	19	2	11	4
	Domestic	6	11	7	18	5	9	19	2	19	4
FRA	International	1	16	10	29	13	6	16	0	7	2
	Domestic	3	13	7	25	7	3	16	2	15	10
GBR	International	2	13	14	34	9	6	13	1	7	0
	Domestic	6	14	16	21	10	5	8	1	17	0
GRC	International	5	16	13	16	12	4	15	3	12	3
	Domestic	4	13	13	20	10	4	21	4	8	3
IRL	International	1	11	7	20	10	11	12	1	24	2
	Domestic	8	15	6	22	10	6	11	2	17	4
ISL	International	8	41	10	8	15	2	8	2	4	1
	Domestic	15	8	17	19	4	6	9	1	17	4
ISR	International	13	13	16	14	14	6	12	1	11	0
	Domestic	20	8	18	14	6	8	17	0	9	0

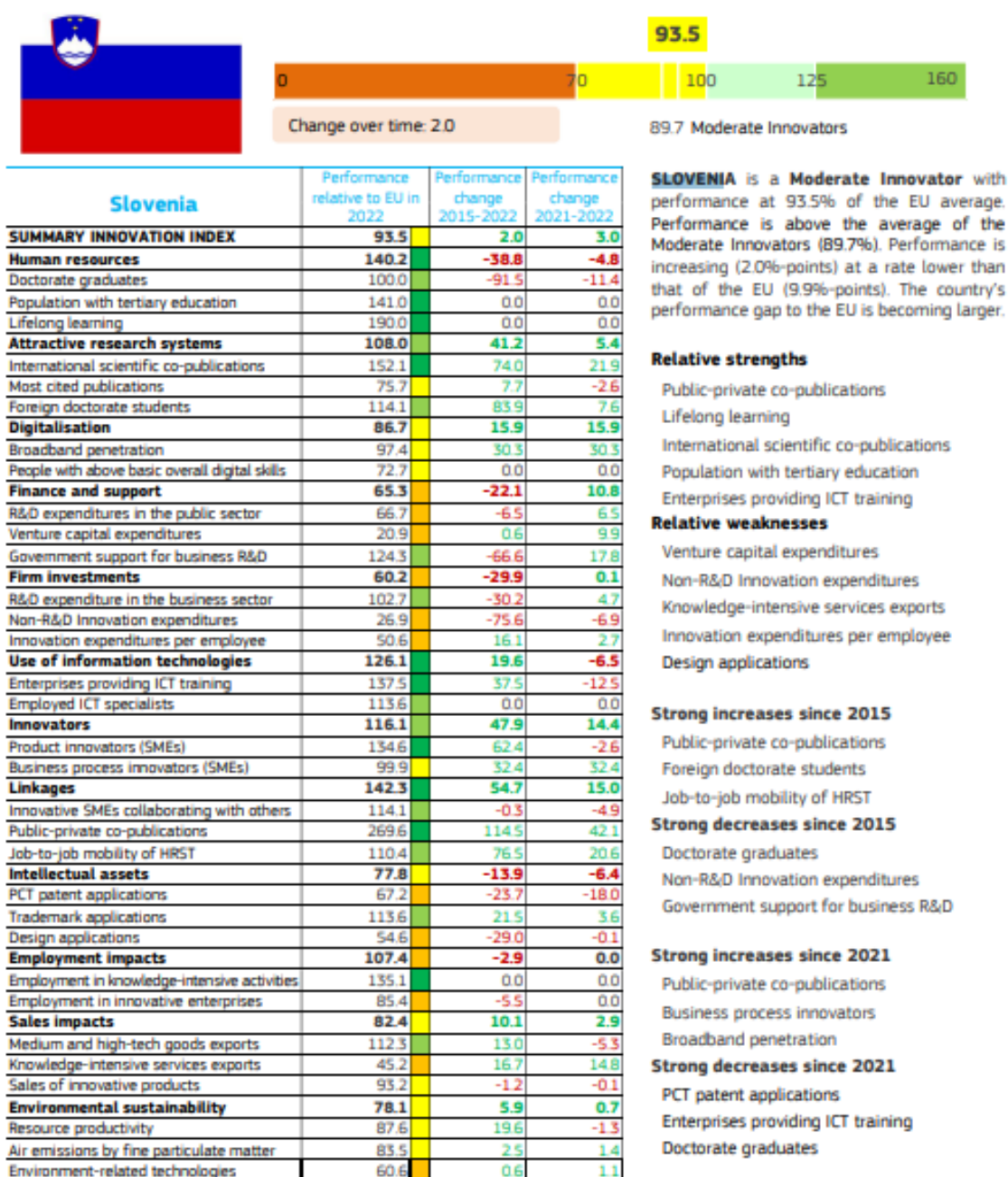
(table continues)

Appendix 2: Domestic/international students by field of study, OECD total, %, 2020 (cont.)

ITA	International	1	31	12	15	6	2	21	2	9	1
	Domestic	8	16	14	18	8	2	15	3	14	3
KOR	International	3	22	13	31	2	4	11	1	4	11
	Domestic	6	16	6	13	5	6	23	1	14	9
LTU	International	1	10	16	23	2	4	15	2	26	1
	Domestic	4	9	9	27	4	6	17	3	19	2
LUX	International	5	7	13	37	11	11	9	6	2	0
	Domestic	19	13	10	24	6	7	9	0	12	0
LVA	International	1	3	4	38	1	10	11	1	25	7
	Domestic	8	8	8	25	3	7	16	2	15	9
NOR	International	4	20	11	15	15	6	12	1	11	4
	Domestic	17	10	11	19	4	5	10	1	18	5
NZL	International	5	8	7	33	9	11	13	2	8	4
	Domestic	8	13	13	19	10	5	10	2	18	3
POL	International	2	12	16	27	4	6	9	2	17	7
	Domestic	9	10	11	23	4	5	15	2	14	8
PRT	International	4	12	13	25	5	2	20	2	12	5
	Domestic	3	10	11	22	6	3	21	2	16	6
SVK	International	9	8	6	11	3	4	11	2	42	3
	Domestic	13	8	10	19	5	5	13	2	18	7
SVN	International	4	10	15	18	8	9	20	1	7	9
	Domestic	10	9	8	19	6	5	19	3	14	8
SWE	International	3	14	13	11	14	7	25	1	11	1
	Domestic	14	14	11	14	5	4	17	1	18	2
TUR	International	5	12	13	20	5	2	24	2	14	3
	Domestic	4	13	10	39	2	2	10	2	13	5
OECD	International	3	13	12	27	8	7	17	1	10	2
	Domestic	7	11	10	26	5	4	15	2	14	5

Adapted from OECD (2022a).

Appendix 3: European Innovation Scoreboard – Country profile - Slovenia



The second column shows performance relative to that of the EU in 2022. Colours next to the column show matching colour codes: dark green: above 125% of the performance of the EU in 2022; light green: between 100% and 125%; yellow: between 70% and 100%; orange: below 70%. Normalised performance uses the data after a possible imputation of missing data and transformation of the data. The next columns show performance change over time between 2015 and 2022 and between 2021 and 2022, with scores relative to those of the EU in 2015. Positive performance changes are shown in green, negative performance changes in red.

Source: European Commission (n.d.).

Appendix 4: Country codes (OECD classification – How's life)

AUS	Australia	FIN	Finland	MEX	Mexico
AUT	Austria	FRA	France	NLD	Netherlands
BEL	Belgium	GBR	United Kingdom	NOR	Norway
BRA	Brazil	GRC	Greece	NZL	New Zealand
CAN	Canada	HUN	Hungary	OECD	OECD average
CHE	Switzerland	IRL	Ireland	POL	Poland
CHL	Chile	ISL	Iceland	PRT	Portugal
COL	Colombia	ISR	Israel	RUS	Russian Federation
CRI	Costa Rica	ITA	Italy	SVK	Slovak Republic
CZE	Czech Republic	JPN	Japan	SVN	Slovenia
DEU	Germany	KOR	Korea	SWE	Sweden
DNK	Denmark	LTU	Lithuania	TUR	Turkey
ESP	Spain	LUX	Luxembourg	USA	United States
EST	Estonia	LVA	Latvia	ZAF	South Africa

Source: OECD (2020).

Appendix 5: Slovenian version of the survey questionnaire

Pozdravljeni,

Sem Peter Levstek, magistrski študent mednarodnega poslovanja na Ekonomski fakulteti v Ljubljani, če ste študent, da uspešno zaključim študij, potrebujem vašo pomoč. V spodnjem vprašalniku je nekaj vprašanj, vezanih na mojo magistrsko nalogo in bi vam bil zelo hvaležen, če jih izpolnite. Vprašalnik je kratek ter anonimen in obljubim, da vam ne bo vzel veliko časa. Hvala!

V svoji nalogi želim raziskati, kakšni so razlogi za beg možganov (emigriranje visoko izobraženih Slovencev) v tujino, osredotočam pa se predvsem na nefinančne dejavnike. Z vašimi odgovori bom pridobil pomemben uvid v izzive Slovenije pri ohranjanju človeškega kapitala in ugleda Slovenije kot privlačne države za visoko izobraženo delovno silo.

Od vas želim izvedeti, kako na vse skupaj gledate tisti, ki vsaj malo razmišljate o selitvi v tujino in kaj bi vas morebiti prepričalo, da se vrnete oz. ostanete v Sloveniji.

*V raziskavi se posebej osredotočam na naravoslovne smeri, zato določenih (nenaravoslovnih) fakultet ter področij študija ni med možnostmi, vendar vas prosim, da vpišete svoje podatke podrobneje pod "drugo".

Vnaprej še enkrat hvala.

Katere narodnosti ste?

- Slovenske
- Tuje

Prosimo, označite, katere narodnosti ste.

- Hrvaške
- Srbske
- Severno Makedonske
- Bosanske
- Drugo: (prosimo, navedite svojo narodnost)

Koliko ste stari?

Katerega spola ste?

- Moški
- Ženska

Prosimo, izberite vašo stopnjo študija, za katero se trenutno izobražujete.

- Dodiplomski študij
- Podiplomski študij
- Doktorski študij
- Post-doktorski študij
- Ne izobražujem se več

Prosimo, izberite vašo matično univerzo.

- Univerza v Ljubljani
 - Fakulteta za strojništvo
 - Naravoslovnotehniška fakulteta
 - Biotehniška fakulteta
 - Fakulteta za kemijo in kemijsko tehnologijo
 - Fakulteta za matematiko in fiziko
 - Fakulteta za elektrotehniko
 - Fakulteta za računalništvo in informatiko
 - Fakulteta za gradbeništvo in geodezijo
 - Drugo (prosimo, navedite vašo fakulteto)
- Univerza v Mariboru
 - Fakulteta za elektrotehniko, računalništvo in informatiko
 - Fakulteta za energetiko
 - Fakulteta za gradbeništvo prometno inženirstvo in arhitekturo
 - Fakulteta za kemijo in kemijsko tehnologijo
 - Fakulteta za kmetijstvo in biosistemske vede
 - Fakulteta za logistiko
 - Fakulteta za naravoslovje in matematiko
 - Fakulteta za strojništvo
 - Drugo (prosimo, navedite vašo fakulteto)
- Univerza na Primorskem
 - Fakulteta za matematiko, naravoslovje in informacijske tehnologije
 - Drugo (prosimo, navedite vašo fakulteto)
- Univerza v Novi Gorici
 - Fakulteta za naravoslovje
 - Poslovno-tehniška fakulteta
 - Fakulteta za podiplomski študij
 - Drugo (Prosimo, navedite vašo fakulteto)
- Evropski center Maribor (Alma Mater Europaea)
- Univerza v Novem mestu
 - Fakulteta za ekonomijo in informatiko
 - Fakulteta za strojništvo
 - Drugo (Prosimo, navedite vašo fakulteto)
- Drugo (Prosimo, navedite vašo matično univerzo in fakulteto)

Katera je vaša smer izobraževanja?

- Inženirstvo (mehansko, civilno, električno, kemično, energetsko, aviacija, ipd.)
- Naravne znanosti (matematika, fizika, biologija, kemija)
- Računalniške znanosti (teorija, grafično oblikovanje, programski inženiring, programiranje, umetna inteligenca)
- Drugo (Prosimo navedite)

Označite, kako ste zadovoljni z naslednjimi dejavniki v Sloveniji od “zelo nezadovoljen” do “zelo zadovoljen”

	Zelo nezadovoljen	Nezadovoljen	Niti nezadovoljen niti zadovoljen	Zadovoljen	Zelo zadovoljen	Ne vem
Plača	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Višina davkov	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Možnost napredovanja	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Možnost zaposlitve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Politične razmere	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Okoljska ozaveščenost	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mentaliteta	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Birokratski postopki	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Otroku prijazno okolje	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ste kadarkoli razmišljali o selitvi v tujino?

Da

Kako resno ste razmišljali o selitvi v tujino?

- Že živim v tujini.
- Trdno sem odločen/a o selitvi.
- Aktivno raziskujem prednosti in slabosti selitve.
- O selitvi zgolj razmišljam.

Prosimo, vpišite top 3 destinacije, kamor bi se preselili (prva izbira naj predstavlja vašo najbolj zaželeno destinacijo izmed izbranih treh).

	Prva izbira	Druga izbira	Tretja izbira
Destinacije			

Prosimo, označite pomembnost dejavnika za selitev iz Slovenije, od "zelo nepomembno" do "zelo pomembno"

	Zelo nepomembno	Nepomembno	Niti nepomembno niti pomembno	Pomembno	Zelo pomembno	Ne vem
Slabe finančne razmere (dohodek, pokojnina)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Slabe razmere na delovnem mestu (možnost napredovanja, delovne razmere, osebno zadovoljstvo, medosebni odnosi)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Neprimerne družbeno kulturne razmere (mentaliteta, nepotizem, skrb za prihodnost otrok...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Slaba skrb za okolje (kvaliteta zraka, okoljska ozaveščenost)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nizek življenjski standard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Slabe možnosti za doseg boljše izobrazbe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zastarela tehnologija	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Malo zaposlitvenih možnosti	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zapleteni in dolgotrajni birokratski postopki	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Nepriemerne politične razmere (korupcija, spoštovanje drugačnosti)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Osebni razlogi (slabi medosebni odnosi, selitev od družine/partnerja)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Prosimo, označite pomembnost dejavnika za selitev v izbrane države od “zelo nepomembno” do “zelo pomembno”

	Zelo nepomembno	Nepomembno	Niti nepomembno niti pomembno	Pomembno	Zelo pomembno	Ne vem
Dobre finančne razmere (dohodek, pokojnina)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dobre razmere na delovnem mestu (možnost napredovanja, delovne razmere, osebno zadovoljstvo, medosebni odnosi)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Všečne družbeno-kulturne razmere (mentaliteta, nepotizem, skrb za prihodnost otrok...)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Visoka skrb za	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

okolje (kvaliteta zraka, okoljska ozaveščenost)						
Visok življenjski standard	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dobre možnosti za doseg boljše izobrazbe	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Moderna tehnologija	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Veliko zaposlitvenih možnosti	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enostavni in hitri birokratski postopki	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Primerne politične razmere (korupcija, spoštovanje drugačnosti)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Osebni razlogi (družina/ partner v tujini)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Kaj bi se moralo spremeniti, da bi ostali/se vrnil v Slovenijo? (Možnih je več odgovorov)

- Plača
- Davki
- Večja možnost zaposlitve
- Možnost napredovanja
- Odnos na delovnem mestu
- Politične razmere
- Okoljska ozaveščenost
- Mentaliteta
- Birokratski postopki
- Drugo (Prosimo navedite)

Želite poudariti še kaj, kar vas motivira za razmišljanje o selitvi v tujino?

Ste kadarkoli razmišljali o selitvi v tujino?

- Ne

Zakaj ne? (Možnih je več odgovorov)

- Nimam dovolj sredstev za življenje v tujini
- Partner/družina
- Skrb za prihodnost otrok
- Zaposlen/a sem oz. zaposliti se nameravam v Sloveniji
- Zaradi študija v Sloveniji
- Zapleteni birokratski postopki
- Bolj mi ustreza mentaliteta v Sloveniji
- Zaradi okoljske ozaveščenosti v Sloveniji

- Zaradi čistoče zraka v Sloveniji
- Drugo (Prosimo navedite)