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Bachelor Thesis

**Latvia's Final Year Bachelor Students' Emigration or  
Stay Intentions and Their Motivating Factors:  
Will They Stay or Will They Go?**

Authors:

Elizabete Kalnozola

Sintija Nīcgaile

Supervisor:

Anna Zasova

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Names of the authors in full:

Elizabete Kalnozola

Sintija Nīcgale

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**Latvia's Final Year Bachelor Students' Emigration or Stay Intentions and Their Motivating Factors: Will They Stay or Will They Go?**

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/Sintija Nīcgale/

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/Elizabete Kalnozola/

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## **Abstract**

Considering the continuous decline in population due to the high emigration flows in Latvia, we aimed to study the remaining human capital and their intentions to emigrate in the upcoming 2 years with a focus on assumingly the most economically important group of people – young and educated.

We aimed to recognize the emigration intentions among young and educated, understand the differentiating characteristics among stayers and leavers, get insights into the plans of leavers, and highlight the aspects that need to be improved to decrease emigration levels in Latvia.

A survey for data collection was distributed among final year bachelor students in Latvian universities. The results were analyzed using a probability regression and descriptive statistics.

The main findings were that 50% of current students have an intention to migrate within the next two years, and 29.9% of them do not have an intention to return to Latvia. Having C level in English, previous working abroad experience, and financing studies using personal funds positively influence the decision to migrate, while being currently employed and having received a study grant positively influences the intention to stay.

Income, education and employment opportunities have the strongest effect on the intention to migrate. We have concluded that reorganization of the taxation system, improvements in the health care system, and assessment of the starting salary ranges with provision of better career opportunities by the private sector could potentially change the plans of young and educated to leave Latvia or put them off forever.

## 1. Introduction

Migration issue has been one of the central topics year after year for general public, policymakers, and business community since Latvia regained its independence in 1990. 2.65 million people gained an independent country 25 years ago, and today only 1.96 million inhabit the territory of Latvia, according to Central Statistical Bureau (2016) estimates. Certainly, globalization of countries has opened plethora of new opportunities for individuals and businesses on an international scale. However, it is necessary not only to acknowledge the gains, but also to manage the negative sides of globalization, for example, potential shrinkage of population due to high emigration flows for small population countries.

This other side of the coin is the focus of the study in the case of Latvia. Particularly, we consider emigration or stay intentions and their motivating factors among final year Bachelor students. The topic of the research and the specific target group has been chosen due to a couple of motivating reasons.

First, the demographic situation in Latvia is far from satisfying. Since 1991 natural growth rate and net migration has been negative, and 2015 net change in population is still lower than in 2007 before the crisis (CSP, 2016a). Every year on average 23'179 people leave the country for long-term emigration, and although emigration levels in the recent years have in general steadily decreased, specifically in 2015 the number of long-term emigrants increased for the first time in four years after the crisis by 6% comparing to previous year - 2014 (CSP, 2016b). Moreover, demographic burden ("the ratio of the number of persons under working age and over working age per 1000 people of working age" (CSP, 2016h)), since 2009 has increased by 17%, putting increasingly high pressure on labor force that has not emigrated (CSP, 2016c). High and constant emigration level and continuously negative natural growth does not promise an economically good outlook for a population of only 1.96 million (CSP, 2016d). Thus, we believe that the issue requires continuous attention with active participation by all the stakeholders, primarily, policy makers to effectively fight the dying out of the nation. Among the two indicators (natural growth rate and net migration), natural growth rate is steadily increasing in the recent years, whilst net migration has increased in the last year and accounts for the greater proportion of annual population decrease. Therefore, we believe, that to improve the severe demographic situation, the primary focus between the two driving demographic factors should be put on managing emigration flows.

Because of the general interest of the emigration issue in the recent years, numerous studies have been made on the topic of migration in Latvia. However, we have noticed that

the literature on migration in Latvia can be primarily categorized in two parts with a focus either on emigration or remigration with a common characteristic to study migration after it has occurred. Only a few papers have looked at emigration intentions and opinions of potential emigrants in Latvia – before the actual emigration. Although previous studies help to comprehend the repercussions of emigration in Latvia, there is little understanding of the emigration intentions and key differentiating factors among stayers and leavers before the actual migration. We are confident that there is a need for additional research on insights of current Latvian citizens as these insights can be applied in practice through policies or other incentives before the emigration takes place to control the large outflow of human capital. Moreover, despite the significant contribution to the understanding of Latvian emigrants, diasporas, and emigration dynamics, policymakers have so far been unable to develop efficient remigration policies. As observed by Kļave and Šūpule (2015) migrants themselves point out that instead of desperately trying to return people to Latvia, focusing on improvement of living standards for people still in home country can turn out to be more fruitful and cost-effective. Considering the available literature on migration in Latvia, we aim to get wise to what differentiates stayers from leavers among Latvian citizens who still reside in Latvia. Also, we aim to identify the factors that affect citizens' intentions to emigrate or stay, so that all the interested parties could act on preventing further outflow of economically important citizens from Latvia by focusing on improving the aspects that they indicate as unsatisfactory with regards to their chosen destination country.

Third, assuming that forward-looking the most economically important people are young and educated, the focus of the paper is on them. These are the people that are the future of Latvia and it seems evident that there is a need to monitor both their emigration or stay intentions as well as the reasons and stimulating factors that make them leave the country. Educated young individuals in this paper are considered to be Bachelor level students. Not only they are more qualified than high school graduates in the labor market to find employment, but also because among all university students (bachelor's, master's and doctorate students) bachelor and similar level education students form around 80% of all the students in Latvia (IZM, 2016). Furthermore, the focus is on final year students as they are soon to be graduates, thus they already should consider their future options, leading to a more clear-sighted stance regarding migration. Thus, we have chosen to study the emigration intentions of this particular group, which has significant number of people for their intentions to matter, who should have the highest probability to be employed and who are soon to face the decision to stay or leave Latvia.

Subsequently, the insights of the intentions and their motivating factors generated from this research are valuable for all the stakeholders, who directly face or expect to face difficulties from current emigration of educated human resource. The knowledge can be applied to new or more effective policies, recruiting strategies or other incentives that serve in stakeholders' interest, and in the meantime, prevent part of educated human resource from emigration. Moreover, we aim to shift the academic focus from studying migration after it has taken place towards researching it right before the individual makes the decision - in the stage when the decision can still be influenced either by the public or private incentives.

Consequently, we have put forward the following research questions:

- 1. What are the characteristics of stayers and leavers among final year bachelor students in Latvia?**
- 2. What are the reasons and barriers for emigration?**
- 3. What are the factors that influence final year bachelor students' emigration or stay intentions?**

The first research question is, first of all, selected with an aim to obtain generalizable results about highly educated student's emigration intentions that could be used to estimate what percentage of young people will emigrate in the upcoming years. The results would help to speculate on the future demographic outlook of Latvia and its impact on the labor market. Also, we aim to shed some light on the aspects that differentiate stayers from leavers with a creation of an average leaver's and stayer's profile.

After a descriptive profile of leavers is made, the second research question would allow to understand the plans of leavers, in this specific sample, of final year bachelor students, to a greater extent - the desired destination country, purpose of migration, and other relevant information.

Finally, the third research question is put forward (1) to get insights into leavers' and stayers' perceptions about Latvia, and (2) to find factors that leavers evaluate negatively in Latvia and positively in the destination country. The results would help to clarify the aspects that need to be improved in order to manage the large emigration flows, specifically what needs to be improved or implemented for highly educated youth retention. We also aim to look for not only the economic driving factors like search for a higher income level in foreign labor markets, but also to consider non-economic factors like better career and education prospects and prospects of forming a family that might motivate young educated Latvians to emigrate. This could help to explain the "new normality" (Hazans, 2014) of emigration and existence of lasting emigration after the real GDP has increased by 19% since the lowest

after-crisis-level in 2010 (CSP, 2016e). The economic recovery has had no strong effect on emigration levels or remigration, and thus we believe that other non-economic factors might be motivating people to go abroad.

We aim to tackle the research questions by using a quantitative survey that is distributed to the last year Bachelor students in all public and private universities in Latvia. The survey results are processed to display the migration intentions, and to compare the differentiating characteristics and factors influencing emigration intentions of both stayers and leavers.

The rest of the thesis is structured as follows, Part 2 is literature review, which summarizes the available literature on emigration intentions, emigration, and remigration, Part 3 explains the methodology used to answer the research questions, Part 4 describes the generated results from the survey of final year bachelor students in Latvia, Part 5 discusses the results and highlights some limitations of the study, and finally Part 6 draws conclusions from the performed research.

## **2. Literature review**

Numerous research papers have studied migration in Latvia, the Baltics, and other countries. We have handpicked the most relevant studies for this research, which have been further described in more detail. For the purpose of this paper, the available literature on migration is categorized in three parts. These parts relate to the major sequential three stages of the migration process: (1) decision to migrate from the home country, (2) migration, and (3) return after migration to the home country.

First category of research is about emigration intentions. This type of research looks at current citizens, and with various kinds of survey instruments analyze the potential of current citizens to emigrate. Thus, academic literature on emigration intentions looks at migration at the very first stage of the movement of labor - before or right after the decision to emigrate has been made.

Second category of research on migration focuses on actual emigration. Primarily these types of studies reveal the significant impact of high emigration levels on economic conditions of the sending country and are often quantitative. Some of the research of this stage of migration analyze the development of emigration situation over the years to speculate about the outlook of the economy of the sending country. Overall, these types of studies look at migration after it has occurred.

Third category of research focuses on remigration. Main topics are related to characteristics of remigrants and remigration policies. In contrast to the second category, these types of studies not always, but often are more qualitative. They strive to characterize those who have decided to return to their home country, explore the factors influencing decision to remigrate, and analyze the reintegration process by performing in-depth interviews. Also, analysis of remigration policies appears among studies on remigration. Overall, remigration research looks at migration in the third phase - when a person decides to return to the sending country.

### ***2.1. Literature on emigration intentions***

In support for the research on emigration intentions, Hammar et al. (1997) points out that studying the motivations, characteristics, and circumstances of not only emigrants, but also the ones who stay is of high importance. For studying the decision-making process, the paper indicates that it is necessary to investigate also the reasons of people who choose not to emigrate and stay in their origin place instead (Hammar et al., 1997). Moreover, Dalen and Henkens (2008) provides a methodological contribution to emigration intentions research

area by concluding that emigration intentions in fact do serve as good predictors of actual behavior. The authors tracked the ones who stated an intention to emigrate after 2 years of the initial survey and tested whether the plans turned into reality or the respondents were only dreaming about moving abroad. The findings show that 24% of those who stated intentions to emigrate, truly did emigrate, and this is seen as a strong indicator considering the fact that the time frame for this important life decision was not determined in the survey question to be 2 years. Also, the authors looked for differences between actual movers and dreamers, and found no significant differences between them. This implies that dreamers are still potential emigrants, but the delay in actual emigration has been explained by the authors with dreamers' health conditions, financial situation, and other unexpected barriers at the time of the research. Overall, the authors highlight the important finding that preferences for or against migration is as good indicator for future demographic situation as revealed preferences, which are mainly used in economic studies. This finding strengthens further studies, which base predictions of future emigration on emigration intentions.

Dalen and Henkens (2008) also document that being highly educated, relatively young, having specific personal traits as self-efficacy, and being in a large emigrant network increases the likelihood of emigration. They also explain that educated individuals, for example those who are holding a Bachelor's degree, should be more likely to emigrate because their "human capital is more internationally transferable", thus also implying that the costs of migration for them are lower than for unskilled. Moreover, Dalen and Henkens (2008) conclude that for high-income countries, like the Netherlands, a strong influencing factor is satisfaction with the work of government institutions. This is a novel finding due to the fact that mainly emigration has been associated with the dissatisfaction of private living conditions and not so much with the public domain (quality of government institutions' work and goods and services produced). Presumably this is also a strong factor for Latvia, where the emigration wave has not subsided after a decent economic recovery from the crisis.

One of the most noteworthy researchers in the field of labor market and migration in Latvia and the Baltics is Prof. Hazans, who has published several works that have largely contributed to the field of study. Hazans (2012) has researched not only emigrants, but also emigration risk of those Latvians who had not yet crossed the border for good. The paper used survey of households in Riga in 2012 as the foundation for the study, and in one of the parts the author looked at the differences between the potential emigrants and the stayers among these households. Furthermore, the author analyzed the fields of social policy that could prevent the members of these households from emigration. The author looked at the

following aspects and their influence on emigration potential of members of the households: citizenship, language spoken in the family, income, age, gender, educational level, and employment. The results show that among 2'007 surveyed households in 2012, 41% of non-Latvians holding Latvian citizenship were potential emigrants, whereas among Latvians only 26% fell into this category, implying that minorities face higher emigration risk than native Latvians. Difference in emigration risk between households with Latvian or Russian language spoken in the family was small, yet with a slightly higher emigration potential for households that spoke Russian. The highest risk of emigration existed among households with low level of income, strengthening the opinion that economic factors motivate emigration. With regards to the differences in educational level, Hazans (2012) finds that the higher the educational level, the motivation to emigrate decreases. Regarding employment, the highest emigration risk was among scholars and students – 45% of all scholars and students planned to emigrate, followed by unemployed (37%). Overall, among all the respondents aged 15-64, high or rather high risk of emigration was for 27% of people from Riga. Among respondents aged 15-34, 40% indicated that there is a high or rather high chance that they will emigrate in the following 3 years. And among those who had higher education, slightly less people intended to emigrate – 30% of potential emigrants. Overall in all age groups the willingness to emigrate is higher among males than women, but the higher the age group, the more the risk to emigrate decreases for both genders. Regarding social policies that could prevent emigration, respondents ranked better support for families with children, social support for those in sudden difficulties, and better healthcare as the best tools to prevent emigration and increase remigration.

As 38.2% of population in Latvia are ethnic minorities we also consider the emigration intentions of this category (CSP, 2016f). For ethnic minorities in Latvia, which according to CSP (2016f) are mainly Russian speakers (25.6%), emigration intentions are strongly linked to a higher level of education, thus resulting in brain drain of Russian speaking Latvia's residents (Ivlevs, 2013). As this group of residents is arguably the most disadvantaged in the local labor market due to language and other factors, there is a large likelihood of high emigration intentions among them, which for the country results in large outflow of particularly educated minorities.

## ***2.2. Literature on emigration***

Hazans (2015) has recently studied the emigration from Latvia, comparing emigrants with respect to the city or region that they come from. One of the main findings was that due

to emigration, Riga and other major cities have lost the most number of people since 2000, comparing to small towns and rural areas. It is also concluded that from rural areas emigration is not as intensive as from cities, and that emigrants from Riga and other major cities are less likely to remigrate. Also, Hazans (2015) compared motivating emigration factors among people who come from different urbanization levels, by using a survey that categorized reasons in 4 sections: economic, non-economic, family factors and social guarantees. Economic push reasons like dissatisfaction with current income level were important drivers in favor for emigration among all respondents, however, with regards to place of origin, they were mentioned less by the emigrants from Riga and other major cities than by the emigrants from rural parts of the country. Furthermore, non-economic pull reasons such as life quality improvement, education or career perspective, willingness to live in a stable and organized country together with non-economic push reasons like dissatisfaction with political processes in the country were mentioned more by the emigrants from cities than from rural areas. Emigrants from the cities are also noted to be less likely to emigrate than emigrants from rural areas.

Another study by Prof. Hazans (2011) found that university graduates among leavers were proportionally less during the time from 2004 until 2008 (24%), and overrepresented among leavers in the period before 2004 (31%) and after 2008 (32%) which indicates that university educated Latvian citizens were more eager to stay in Latvia when the economy was growing. In total, by 2010 the percentage of university graduates among emigrants was 24%. What is interesting, - 36% of all non-Latvian emigrants, who were holding a Latvian citizenship, were university graduates, while among native Latvians there were 23% of graduates. This implies that proportionally within ethnic groups educated minorities tend to not only have higher emigration intentions (Ivlevs, 2013), but that their actual behavior to emigrate from Latvia is also higher among them than among educated native Latvians, which in turn requires to take this group of people into account while performing research on emigration intentions as they are also likely to emigrate.

### ***2.3. Literature on remigration***

Research on remigrants has been recently performed by Tverdostup and Masso (2016), who studied the wage gap between return migrants and stayers, and their conclusion was that for young migrants work experience abroad has a positive effect on wage premium after remigration to Estonia. What is important for this paper is that using econometric logit model they analyzed the typical features of young remigrants, which is also one of the aims

for our research, but with regards to potential emigrants in Latvia. The typical remigrant was male, native Estonian, and holding a higher education degree, who has worked in a service sector, yet more likely has held a low-level position, facing a skill-occupation mismatch. Another important aspect is that they found that young people with bachelor's or master's degree more often than people with primary education emigrate only temporary and eventually return to Estonia. Furthermore, Tverdostup and Masso point out that there is a need for more research focused specifically on temporary migration of young people as currently it has not been researched enough.

Kļave and Šūpule (2015) qualitatively studied recent Latvian remigration policy from the perspective of returnees. Their conclusions were that the 2013-2016 policy has been developed more as a support tool for those who have already returned, rather than a stimulating tool to increase remigration. At the same time, from the migrants' perspective it is seen as a tool to promote remigration, yet - it is not effective. Migrants mentioned that they barely know anything about this policy, that they do not believe that policies are well thought out, and that policy makers are not genuinely thinking about individuals and people. One of the most notable findings is that some of the migrants have expressed an opinion that it is more important to use different available resources to preserve the existing human capital in Latvia than to promote remigration. This finding also serves as a cornerstone for the focus of this research. Overall, emigrants conclude that no policy can magically encourage Latvians to return to Latvia as it would focus only on one aspect in a short-term. They believe that only long-term focus on building a better country by focusing on prosperity, economic growth, social security, court, and government justice could attract emigrants back to Latvia.

#### ***2.4. Overview of literature review***

Because of the review of available literature on migration, we have noted and concluded that: (1) In Latvia, research on stated preferences or emigration intentions as an indicator of future emigration is scarce; (2) young and educated people are more likely to emigrate; and that (3) people from cities, with higher education, and better living conditions emigrate not only, but mainly due to non-economic push and pull reasons.

### **3. Methodology**

In this paper, future student emigration risk in Latvia is forecasted based on the emigration intentions of final year students to migrate. Emigration intentions and differences among stayers and leavers are analyzed by means of primary sources - anonymous surveys distributed to final year students in Latvian universities. We built the methodology based on similar studies described in the literature review.

#### ***3.1. Sample selection***

The decision to select final year bachelor students for the analysis of emigration intentions and subsequent speculations on results' implications for the future of Latvia was made after considering the following conditions and assumptions.

First, we assume that (1) the young and educated are the most economically important group of people for Latvia. However, it is imperative to point out that all economically active residents, disregarding the education level, age, or gender, are necessary for the growth of the economy. Furthermore, among all young and educated, academic master's and doctorate students together form only around 20% of all the students in Latvia, whilst bachelor's and similar program students form around 80% (IZM, 2016). Thus, (2) bachelor's students make up a significant part of all the students in Latvia and their choices with regards to migration can affect the future demographic situation the most relative to other educational level students. Moreover, considering Hazans (2012) findings that the higher the education attained, the emigration becomes less likely - we have no interest looking deeper into master's or doctorate students. What is more, (3) final year students are soon to be graduates, thus they already should consider their future options, leading to a more clear-sighted stance regarding migration. Also, we did not analyze separately the future emigrants, but looked at both stayers and soon-to-be leavers. This approach was chosen as (4) previous studies on international migration has had a propensity to disregard the non-migrants, and including them leads to a greater perspective of the issue as described by Hammar et al. (1997). Therefore, the sample of the research consisted of all students of Latvian universities in the final year of their studies, who are currently deciding whether to leave or not.

#### ***3.2. Survey***

A three-section self-administered survey focused on demographic variables and push-pull factors influencing migration intention was employed. We used a survey for data collection as it allowed to include an extensive list of questions, with whom we were able to reduce omitted variable bias for the regression analysis. The sample frame of the study

included students who at the time of the survey, were studying in a bachelor's program in one of the 57 universities in Latvia (Appendix A). Overall in the bachelor and other similar academic programs in 2016 there were around 15`800 students who had graduated and the number has not varied in a distinctive manner in the recent years (IZM, 2017). Taking this into account we assumed that the sample population of number of graduates in 2017, should be of similar. We conducted the survey in January and February 2017.

### **3.2.1. Characteristics of stayers and leavers**

The first section of the survey was aimed at all students and included questions relating to demographic variables (Appendix B: Survey questionnaire). All questions had a closed ended format. The questions about student's demographic characteristics included inquiries about age, gender, marital status, and citizenship. The questions about educational characteristics included inquiries about the school the respondent is attending, self-reported overall class ranking, and previous experience living abroad. At the end of the first section a final question was included to comprehend student's intentions to migrate. Dalen and Henkens (2008), who studied whether emigration intentions are good predictors of actual future emigration, measured emigration intention with a categorical variable that answered to their question: "Do you intend to emigrate in the near future?", and the answers were ranked in 5 categories. However, in this research, only 2 categories of answers are included as emigration decision is looked at as a binary dependent variable, and a more definitive time-frame of 2 years was used instead of "near future" as it can be interpreted differently. Interpretation issue was observed in the work by Dalen and Henkens (2008) due to inexplicit format of the question posed to respondents, thus this study aims to avoid this ambiguity.

### **3.2.2. Analysis of future migrants**

The eligible respondents for the second section of the survey were the ones who planned to migrate in a two-year time frame for a period longer than one year for the purpose of studies, volunteering or work in a country other than of their origin. The questions asked to them were related to their goals in the host country, whether they consider returning to Latvia, and to the barriers they have to overcome or expect to face in order to easily emigrate. Question about barriers was included as Dalen and Henkens (2008) conclude that barriers can either affect the time span after the decision to emigrate until emigration or even eventually discourage actual emigration. This is important for better interpretation of the results and further speculations on the future developments of the demographic situation.

### **3.2.3. Factors influencing both stayers and leavers**

The third part of the survey included questions about push and pull factors to migrate. The push-pull theory (Lee, 1966) was used as the conceptual framework of the survey, and, using a deductive process adapted, to describe the current situation in Latvia and tendencies of final year students. Push factors positively influence the intention to migrate as the factors deal with dissatisfaction of the area that one lives in, while pull factors indicate the favorable aspects that attract one a certain area other than the current place. The push-pull factors were assessed using a 7-point Likert scale, where “0” indicates that respondent strongly disagrees with the statement and “6” implies strong consent. According to Nunnally, (1978) a seven-point scale has the highest possible reliability of the answers and he suggests to use as wide a scale as possible to gain relevant answers. Hazans (2015) in his work categorized factors in four sections - economic, non-economic, social and family, we based our choice of factors in accordance to Hazans categorization. Also, the factors listed by Dalen and Henkens (2008) that influence emigration intentions, such as the quality of governmental institutions and personal network were included in this part of the survey. Both potential migrants and non-migrants were asked to evaluate the situation about Latvia, while only potential migrants were qualified to answer about the country they intend to move.

The questionnaire was in English and Latvian. It considered also the foreign students currently residing and studying in Latvia and their future plans to migrate from Latvia.

### **3.3. Data collection**

The sampling strategy that we employed, to ensure that the sample used in our paper is representable, involved inquiring student and administration representatives of each university in Latvia about the possibility to send out the questionnaire through an internal communications platform. Also, the questionnaire was distributed within social media sites. As it was not possible to achieve the required response rate with online surveys, we performed on-field work and surveyed RTU students on their campuses, this sampling strategy was the most successful in terms of responsiveness. Furthermore, the risk of collecting research inappropriate people filling out the survey was overcome by asking specific questions that would filter out respondents, who are not eligible for the research. For example, one of the questions posed to ensure data validity was regarding the year of studies of the respondent. Due to this question we could filter out and omit from further analysis almost half of the respondents, who indicated that they are first, second or pre-final year students.

### 3.4. Empirical approach

To answer the research questions data analysis was structured in three parts. (1) Analysis of characteristics of stayers and leavers, (2) analysis of future migrants, and (3) analysis of factors influencing both stayers and leavers.

#### 3.4.1. Characteristics of stayers and leavers

First, we analyzed the whole sample, which included those who planned to emigrate as well as those who did not. Using this part of the survey we were able to challenge the first research question:

- (1) What are the characteristics of stayers and leavers among final year bachelor students in Latvia?

The research question was answered by performing two analysis parts. The first part included descriptive statistics of all the surveyed students, this allowed us to differentiate the characteristics of leavers and stayers. The second part of the analysis was performed to test the effect of characteristics on the intention to migrate. The analysis was done using a regression with a binary dependent variable. The dependent variable was the intention to migrate and independent variables were the characteristics of the students. This approach allowed to find relationships between characteristics and intentions to migrate and the quantitative effects of the independent variables.

The model for analyzing the patterns of the decision to migrate was as follows:

$$Pr \{Y_i = 1|X_i\} = \beta_0 + \beta X_i + u_o, \quad (1)$$

In equation (1) Pr denotes the probability, where  $Y_i$  is a realization of random variable  $Y_i$  taking the value 1 if the respondent has an intention to migrate and 0 if not.  $X_i$  is the vector of control variables including the characteristics of respondents,  $\beta$  is a vector of corresponding point estimates, and  $u_i$  is the residual term. Probit model not a linear probability model was employed as the outcome lies within [0,1] interval. As there is not a significant difference between the results of probit and logit models, we chose to use the probit model. Because coefficients of the probit regression are not easy to interpret, marginal effects were used to analyze the probability of the student migrating based on changes in the independent variables. The independent variables - relationship status, city where studied in high school, field of studies, class ranking, language of studies, level of English knowledge, financing of studies, employment, previous experience working abroad and previous experience studying abroad were grouped and coded into dummy variables. We chose not to

include age in the regression as there was a very small variation in age leading to the fact that it was not possible to interpret the results as individuals becoming older.

Gender as it is in a nominal scale was transformed in to a dummy variable to take the value 1 if the respondent was male and 0 if female, the characteristic was included in the analysis to test whether Hazans (2012) finding that males migrate more than women applies also among final year bachelor students in Latvia.

Relationship status was one of the independent variables as it allowed to see a possible linkage of going abroad for better prospects for forming a family or not going abroad due to having a significant other in Latvia. The respective question in the survey included answers that allowed the respondent to indicate whether a person is single, divorced, married or in a relationship. To include the answers in the probit regression the answers were grouped and recoded in a dummy variable, where 1 indicated that a person is single or divorced and 0 if the person is in a relationship or married.

The city in which students studied in high school was included in the analysis to understand whether there is significant difference in the intention to migrate for students from Riga versus other cities. The dummy variable for this characteristic took the value 1 if the respondent studied in Riga in high school and 0 if the student was studying in a different city. Hazans (2012) stated in his work that a large part of Riga's population is planning to migrate and in his work published in 2015 he stated that people coming from the countryside, but currently living in Riga are less likely to migrate to foreign countries as they have recently made the decision to migrate to Riga. In this paper we expected the students from Riga to be more likely to move abroad as a majority of the students who were studying in a different city already had made a choice to move to Riga for their bachelor studies.

From the question of field of studies, we chose to analyze in detail whether economics and business students are more likely to migrate. It was assumed that a majority of the students might choose to move abroad for further studies, because currently in Latvia there are not many possibilities to continue master's studies in high level and internationally recognized programs in the field of economics, business or finance. The characteristic was coded as a dummy variable to take the value 1 if the respondent was studying economics and business, 0 if other.

The current higher educational institution was recoded in a dummy variable where top universities, according to an article in *Latvijas Avize* (Kuzmina, 2015) RTU, RSU and LU, took the value 1, and 0 otherwise. The survey also included a question that required the student to indicate his place in class ranking based on his average. Because less than 5% of

the respondents indicated that they are in the bottom 1/3<sup>rd</sup> in the class rank, we recoded the dummy variable to take the value of 1 if the student is in the top 1/3<sup>rd</sup> and 0 if he is in the lowest 2/3<sup>rd</sup>. An interaction term was introduced to take into account the fact that the relationship between the self-assessed rating and the propensity to emigrate can be different depending on the overall ranking of the university. This characteristic was studied, because top performing students might be inclined to look for more challenging possibilities abroad.

Language of studies was included in the analysis, because we assumed that that students, who are studying in Latvian, would be less confident in moving to a different country as they are not used to a foreign language in daily communication. The characteristic was recoded as a dummy variable to take the value 1 if the studies are in Latvian and 0 otherwise. Due to similar reasons, the knowledge of English language was studied, where the students, who indicated that they have C level in English, took the value 1, and the lower levels were represented by 0.

Based on Ivlevs (2013) findings, minorities were also studied. The characteristic of being a minority was included in the regression to assess the motivation of Russian speaking student motivation to move abroad. Based on the answer about the knowledge of Russian language the ones who indicated that they have C2 level in Russian were assumed to be of Russian minority, therefore in the regression these answers took the value 1 and 0 for lower levels of Russian language.

The question about the financing of studies was included in the analysis to understand whether people who are financing their studies with personal funds are more inclined to move abroad. Arguably they do not have a psychological burden of staying in Latvia if their studies have not been covered by the government's funds. Therefore, the variable took the value 1, if the person finances their studies with personal funds and 0 if otherwise.

Based on Hazans (2012) finding that unemployed Latvians are more likely to migrate, we chose to analyze whether having a job creates disincentives to move abroad for final year bachelor students. In the regression being employed took the value 1 and 0 for unemployed.

We believed that previous experience living abroad has a positive effect on the motivation to move abroad. To test it, two variables were included in the regression that represented previous experience living abroad for studies or work, where the dummy variable took the value of 1 if the student had previous experience and 0, if not.

Based on the above-mentioned statements and previous literature, we put forward table 4 with expected effects of each of the characteristics on the intention to migrate that are to be tested with the regression analysis.

**Table 4. Characteristic expected effect on the intention to migrate**

Characteristics	Expected effect
1 Being male	+
2 Being single	+
3 Having studied in Riga in high school	+
4 Being an economics and business student	+
5 Being a top student in a top university	+
6 Having studies in Latvian	-
7 Having C level in English	+
8 Being of Russian minority	+
9 Financing studies using personal funds	+
10 Being currently employed	-
11 Having previous experience working abroad	+
12 Having previous experience studying abroad	+

Source: Made by the authors

### **3.4.2. Analysis of future migrants**

To answer the second research question:

(2) What are the reasons and barriers for emigration?

Future migrants were analyzed based on their answers to the questions asked about the purpose of moving abroad, their destination countries, and intentions to remigrate to Latvia. Additionally, respondents were asked to indicate the barriers they must overcome or they expect to face before successfully moving abroad. The questions were analyzed using descriptive statistics to understand the most common answer among the students.

### **3.4.3. Analysis of factors influencing both stayers and leavers**

Third, we analyzed the push and pull factors for leavers and the satisfaction of the same factors in Latvia for the stayers. The respondents ranked their perception of multiple factors on a seven-point Likert scale. Nunnally (1978) states that, as Likert scale answers are on an ordinal scale parametric, analysis using basic descriptive statistics are not suitable for studying the results. He suggests that non-parametric measures such as the median should be employed for analyzing Likert scale data (Nunnally, 1978). Therefore, factors were distinguished by the median responses and the strength of push-pull factors were accentuated differentiating the evaluation of factors between Latvia and the destination country. This allowed to see the biggest differences in evaluations.

The third part analysis was employed to provide an answer to the third research question:

(3) What are the factors that influence final year bachelor students' emigration or stay intentions?

#### **4. Analysis of results**

This section of the paper provides an overview of the acquired data and the regression results and allows to understand what is suggested by the descriptive statistics. More in-depth analysis of the results is provided in the discussion of the results section of the paper. The acquired data set consists of 25 questions which were answered by 397 respondents out of which only 246 were relevant for further analysis. The rest of the answers gathered were dropped because the respondents were not in the final year of bachelor studies.

The result analysis is divided into four parts: in the first part the characteristics of the students are presented, second part studies the regression results, third part includes an overview of the potential reasons and barriers for migrating, and the fourth part analyses the push and pull factors of student migration.

##### ***4.1. Sample description***

Table 1 provides summary statistics about the variables used in the regression for analyzing the intention to migrate. The table provides information that 50% of the respondents had an intention to move abroad within two years after graduation for a period longer than one year for studies, volunteering or work. The average age of the respondent was 23 years, the 25<sup>th</sup> percentile for age is 21, P50 is 22 and P75 is 23. Fifty percent of the surveyed students were single. Out of all the respondents 40% were male. Based on frequency analysis of question 8, which asked about the field of studies a student has taken, it can be seen that most the respondents were studying economics and business, this can be partly due to SSE Riga biased sample. Forty-nine percent of the respondents were studying in Riga while attending high school and 59% were employed at the time when the survey was distributed. Forty-three percent of the students indicated themselves to be in the top 1/3<sup>rd</sup> in the estimated class ranking based on their average grade and 27% of all the respondents were studying in one of the top three universities in Latvia. In Appendix E, the distribution of the sample by universities can be seen. The interaction term between the top performing students and top universities is represented by 29% of the students. A large part of the respondents' main language of studies was Latvian and 54% of the surveyed people indicated their English knowledge skills to be in C level. 20% of the respondents were proficient Russian speakers, representing the minority in this study. Thirty-one percent of the students financed their studies using personal or family funds. Only 22% of the students had gone abroad before for work and 27% for studies, for example, did an Erasmus exchange.

#### 4.1.1 Characteristics of stayers and leavers

Separately observing the results of the respondents (Table 1), who indicated that they do not intend to move abroad within the next two years after graduation, the average leaver is slightly younger than the stayer. Thirty-eight percent of the leavers are male, while among stayers they form 43%, indicating that more males have decided to stay than leave. Most of the students who are planning to move abroad are single, suggesting that being in a relationship might lead to the decision to stay. As can be seen from Table 1, more than half of those who are planning to migrate have studied in Riga in high school and 45% of the stayers have studied in Riga before. Furthermore, 70% of the respondents who indicated that they intend to stay and 56% of the leavers are economics and business students. Among both, stayers and leavers, 43% are in the top 1/3<sup>rd</sup> in the average class rank. Thirty-two percent of stayers and only 22% of leavers are studying in one of the top 3 universities in Latvia. Looking at the interaction term, almost 40% of stayers are top students from top universities, while just 20% of the stayers are top performing students. Seventy-five percent of the stayers have their studies in Latvian which is comparatively more than the 56% of leavers whose studies are in Latvian. Less than half of the stayers indicated that their English knowledge is in C level while 67% of leavers have a C level in English. Twenty-four percent of the leavers and merely 16% of stayers are proficient Russian speakers. Studying the aspect of financing studies, 40% of leavers and 21% of stayers are covering their tuition costs with personal funds. More stayers are currently employed than leavers, 66% and 52% respectively. About 20% of the students, who indicated that they intend to stay, have had previous experience either studying or working abroad, while 25% of the leavers had worked abroad before and 35% of leavers had studied abroad before filling out the survey.

**Table 1. Description of variable included in student characteristics analysis**

Variable	Definition	Mean - All	Leavers	Std. Dev.	Stayers	Std. Dev.
migrate	Dummy, 1 if respondent intends to move abroad within two years after graduation, 0 otherwise	0.50				
age	Age of the respondent	22.54	<b>22.32</b>	2.95	<b>22.75</b>	3.01
Latvian	Dummy, 1 if respondent's language of current studies is Latvian	0.65	<b>0.56</b>	0.50	<b>0.75</b>	0.43
econ	Dummy, 1 if respondent's field of studies is economics and business, 0 if otherwise	0.63	<b>0.56</b>	0.49	<b>0.70</b>	0.41
empl	Dummy, 1 if respondent is currently employed, 0 if otherwise	0.59	<b>0.52</b>	0.50	<b>0.66</b>	0.47
English	Dummy, 1 if respondent has C level in English, 0 if otherwise	0.54	<b>0.67</b>	0.47	<b>0.41</b>	0.49
single	Dummy, 1 if respondent is single, 0 if in a relationship or married	0.50	<b>0.53</b>	0.50	<b>0.47</b>	0.50
Riga	Dummy, 1 if respondent studied in high school in Riga, 0 if otherwise	0.49	<b>0.52</b>	0.50	<b>0.45</b>	0.50
top	Dummy, 1 if based on the average grade in the class ranking respondent is in the top 1/3rd, 0 if otherwise	0.43	<b>0.40</b>	0.49	<b>0.45</b>	0.50
male	Dummy, 1 if respondent is male, 0 if otherwise	0.40	<b>0.38</b>	0.49	<b>0.43</b>	0.50
self	Dummy, 1 if respondent's payment of studies is self-financed, 0 if otherwise	0.31	<b>0.40</b>	0.49	<b>0.21</b>	0.41
ttop	Interaction term, 1 if respondent is a top performing student from a top university, 0 if otherwise	0.29	<b>0.37</b>	0.41	<b>0.20</b>	0.47
Unitop	Dummy, 1 if respondent is studying in a top university, 0 if otherwise	0.27	<b>0.22</b>	0.50	<b>0.32</b>	0.46
abstud	Dummy, 1 if respondent has gone abroad before for studies, 0 if otherwise	0.27	<b>0.35</b>	0.48	<b>0.20</b>	0.40
abwork	Dummy, 1 if respondent has gone abroad before for work, 0 if otherwise	0.22	<b>0.25</b>	0.43	<b>0.19</b>	0.39
Russian	Dummy, 1 if respondent has C2 level in Russian, 0 if otherwise	0.20	<b>0.24</b>	0.43	<b>0.16</b>	0.37
Observations		246	124		122	

Source: Made by the authors

#### 4.1.2 Regression analysis

Before performing the regression, a correlation analysis was done (Appendix D) which implied high correlation between the variable Latvian and econ with several other independent variables therefore, the variables were not included in the final regression. As well, age was not included in the regression as among all the respondents did not significantly variate from the average age. The marginal effects after probit regression model are seen in Table 2. The dependent variable is the intention to migrate and the independent variables are the characteristics of students stated in Table 1. The outcome of the regression in Table 2 implies that having a C level in English increases the probability of the student to migrate by 24pp at a 1% significance level. Financing studies using personal or family funds has a positive effect on the probability of migrating and increases it by 15pp at a 10% significance level. Being currently employed lead to the result that a person would not migrate to a different country after graduation with the probability decreasing by 14pp at a 5% significance level. Having worked abroad before increases the probability to migrate by 14pp at a 10% significance level. Gender, relationship status, the city in which the student studied in high school, university ranking, class ranking, being a minority, and having previous experience studying abroad does not have a significant impact on the decision to migrate within two years after graduating from university. The results suggest that having an advanced and proficient level of English knowledge is the strongest independent variable in the regression and has the highest impact on the intention to migrate.

**Table 2. Marginal effects after probit**

Variable	$dy/dx$	Standard Error	$P >  z $
Having C level in English	0.239	0.073	0.001
Being currently employed	-0.140	0.069	0.042
Financing studies using personal funds	0.150	0.080	0.060
Having previous experience working abroad	0.136	0.082	0.095
Being of Russian minority	0.114	0.087	0.188
Being single	0.085	0.067	0.207
Having previous experience studying abroad	0.050	0.088	0.568
Being male	-0.029	0.068	0.669
Being a top student	-0.044	0.115	0.701
Having studied in Riga in high school	0.021	0.070	0.767
Studying in a top university	0.028	0.104	0.785
Being a top student in a top university	-0.023	0.146	0.875

Source: Made by the authors

## 4.2. Analysis of future migrants

This part of analysis studies in detail the motivation of those who have an intention to move abroad within 2 years after graduation. Based on the results in Appendix C, to question 19 about the reason of moving abroad 81% of the respondents indicated that they would move abroad for work and 64% chose studies as their main reasons for migrating. Majority of the students selected the US, Sweden, and Germany as their first choice. To understand the possible plans for returning, the respondents were asked about their intentions on returning to Latvia, and as a result 27% said that they would live abroad for less than five years after work/ studies/ volunteering has finished and then they would return to Latvia. What is more, the most frequent answer (30%) to question 21 was that the students do not have an intention to return to Latvia, when analyzing these respondents (Table 3) it was possible to find out that the majority are single, not studying economics, are not in the top 1/3rd in the class ranking, their studies are not in Latvian, they are financing their studies not using personal funds and are currently employed as well they have not worked or studied abroad before. When asked about the barriers, the respondents indicated that expenses, losing ties with family and friends are the main reasons that make moving abroad more difficult.

**Table 3. Analysis of respondent characteristics that do not have an intention to return to Latvia**

Characteristic	Percent
Having C level in English	77%
Being currently employed	57%
Being single	51%
Studying in a top university	49%
Having studies in Latvian	49%
Financing studies using personal funds	49%
Being an economics and business student	43%
Having studied in Riga in high school	40%
Being a top student	40%
Having previous experience studying abroad	40%
Being of Russian minority	37%
Being male	29%
Having previous experience working abroad	29%
Being a top student in a top university	17%

Source: Made by the authors

### 4.3. Factors influencing both stayers and leavers

To analyze the factors that influence the students to stay in Latvia or leave it after the final year of studies, it is necessary to distinguish the push-pull factors of both the destination and home country.

#### 4.3.1. Home country evaluation

**Figure 1. Median values of factors by all the respondents about Latvia**

Level of crime and corruption	3
Tax burden	3
Health care system	3
Income	3
Further educational opportunities	4
Social security system	4
Employment opportunities	4
Work conditions	4
Prospects for forming a family	4
Residential opportunities	5
Quality of public services	5
Security and peace	5
Cleanliness of environment	6
Closeness to parents	6
Closeness to friends	6
Cultural opportunities	6

1 – extreme dissatisfaction, 7 – extreme satisfaction

Source: Made by the authors

Using the median results (Figure 1) we were able to find that among all of the respondents the factors that they were most dissatisfied in Latvia were tax burden, level of crime and corruption, health care system and income (Figure 1).

Although when analyzing the stayers and leavers separately (Figure 2), it was possible to indicate that the leavers were also dissatisfied with further educational opportunities as employment opportunities, social security system and employment opportunities. Respondents with an intention to stay in Latvia, indicated dissatisfaction only for the tax burden and health care system.

Both stayers and leavers pointed out their satisfaction in Latvia with the closeness to parents and friends, however, stayers had an additional factor that was positively ranked - cultural possibilities in Latvia and leavers were more satisfied with the cleanliness of environment and place than the ones who intend to stay (Figure 2).

**Figure 2. Median values of factors by stayers and leavers about Latvia**

Leavers about Latvia		Stayers about Latvia	
Further educational opportunities	3	Tax burden	3
Level of crime and corruption	3	Health care system	3
Tax burden	3	Level of crime and corruption	4
Social security system	3	Social security system	4
Health care system	3	Income	4
Employment opportunities	3	Further educational opportunities	5
Income	3	Residential opportunities	5
Quality of public services	4	Quality of public services	5
Work conditions	4	Cleanliness of environment	5
Prospects for forming a family	4	Security and peace	5
Residential opportunities	5	Employment opportunities	5
Security and peace	5	Work conditions	5
Cultural opportunities	5	Prospects for forming a family	5
Cleanliness of environment	6	Closeness to parents	6
Closeness to parents	6	Closeness to friends	6
Closeness to friends	6	Cultural opportunities	6

1 – extreme dissatisfaction, 7 – extreme satisfaction

Source: Made by the authors

Based on the results about the destination country the leavers in general have a very positive view and have valued many factors with the grade of 6 out of 7 (Figure 3). The students who indicated that they intend to move abroad pointed that the only dissatisfying factor about the destination country is the distance from parents and friends (Figure 3). The factors that the potential migrants showed as attractive in the destination country were further educational and employment opportunities, more satisfying work conditions, such as having challenging tasks and career advancement chances. Moreover, students indicated that the median value for satisfaction with income and cultural opportunities is 6, meaning that they are moderately satisfied with the factors.

#### 4.3.2. Push-pull factors

The push factors making the potential migrants to move away from Latvia were further educational opportunities, crime and corruption level, social security system and health care system, income level and tax burden. The pull factors that attract the students to the destination country were further educational opportunities, employment opportunities, work conditions, income, cleanliness of environment and cultural opportunities.

To distinguish the strongest push and pull factors, we looked at the differences of evaluation of a factor between Latvia and the destination country. This was done due to fact that there were no factors with extreme satisfaction or dissatisfaction values and several in Latvia were evaluated with a 3 and in the destination country with a 6. The largest difference was for three factors - education opportunities, employment opportunities and income, therefore, we assume these factors to have the strongest effect on the intention to migrate.

**Figure 3. Median values of factors by leavers about Latvia and destination country**

<b>Leavers about Latvia</b>		<b>Leavers about destination country</b>	
Further educational opportunities	3	Closeness to parents	2
Level of crime and corruption	3	Closeness to friends	3
Tax burden	3	Level of crime and corruption	4
Social security system	3	Tax burden	4
Health care system	3	Residential opportunities	5
Employment opportunities	3	Quality of public services	5
Income	3	Security and peace	5
Quality of public services	4	Social security system	5
Work conditions	4	Health care system	5
Prospects for forming a family	4	Prospects for forming a family	5
Residential opportunities	5	Cultural opportunities	5
Security and peace	5	Further educational opportunities	6
Cultural opportunities	5	Cleanliness of environment	6
Cleanliness of environment	6	Employment opportunities	6
Closeness to parents	6	Work conditions	6
Closeness to friends	6	Income	6

1 – extreme dissatisfaction, 7 – extreme satisfaction

Source: Made by the authors

## **5. Discussion of Results**

Discussion of the generated results and their implications is further structured as follows: first, the initial research questions are restated, and, second, the results for the corresponding research questions are explained and commented. Third, a discussion on what should be done from our perspective is included, and, finally, a limitations part is included so that it is possible to objectively judge the occurrence of some potential biases in the final conclusions and to suggest improvements for the future studies.

### **5.1. Research questions**

***RQ1:** What are the characteristics of stayers and leavers among final year bachelor students in Latvia?*

#### **5.1.1. Emigration intentions**

The answer to the posed question was found by employing the survey with 246 answers from final year students. The results show high interest among educated youth to emigrate, which is in line with Dalen and Henkens (2008), who suggested that young and educated are highly attracted to the idea of pursuing various goals internationally, and that their human capital is more internationally transferable. Also, these results are in line with Hazans findings (2011; 2012), who mentioned that this group of people are under the highest risk for emigration.

One of the aims of this study was to generate results that would help to briefly assess the future demographic outlook and its impact on the labor market of Latvia. Taking into account that the results serve as a reliable predictor of the number of near future emigrants among all bachelor students (Dalen and Henkens, 2008), some rough calculations and speculations about the implications are made.

Based on the findings, currently the apportionment of the stayers and leavers is practically the same -approximately half of the students, who currently study in bachelor level, could potentially emigrate and not be economically active in Latvia in the future. Overall, in the bachelor and similar academic programs in 2016 there were around 15`800 students, who graduated (IZM, 2017). If the same amount will graduate in 2017, after a rough calculation, it can be speculated that around 7`900 students potentially can emigrate within 2 years' time. According to CSP (2016b), 20`119 people emigrated from Latvia in 2015. Assuming that the same amount of people emigrates from Latvia in the future, and comparing

to the speculations of this research - almost 40% of the emigrants in the next 2 years could potentially be Bachelor level students.

Previous academic research already suggested that educated young people are more likely to emigrate, and what is subsequently not surprising from the summary statistics is that educated young people are indeed considering to emigrate from Latvia in the upcoming 2 years for a period longer than 1 year. Moreover, a significant number of the respondents, who plan to move abroad, do not even intend to return to Latvia after emigration. However, this might not necessarily mean that Latvia has lost the particular group of future workforce that is supposed to be the key to any country's prosperity. The results show that majority of leavers are in fact willing to eventually return to Latvia. This group of temporary migrants probably have similar intentions as described in the study by Tverdostup and Masso (2016), who found that return migrants enjoy wage premiums relatively to the wage level of stayers.

### **5.1.2. Characteristics of stayers and leavers**

In Hazans research (2011) it was found that educated minorities tend to emigrate from Latvia more than educated native Latvians. From the regression analysis of this study, the variable that represented the minority students did not eventually turn to be significant. However, in the sample of this research minority students who plan to leave are by 8% more than stayers. Also, among those who intend to emigrate and not return to Latvia, almost 40% are represented by students of minority.

Hazans (2011) also found that people living in Riga were more likely than people from other cities or rural areas to emigrate in the upcoming 2 years, which is a similar result in this research of those who have studied in Riga in high school. Apart from the finding that high school graduates from Riga are more likely to move abroad, this can also be a sign that people from other cities would rather first migrate to larger cities like Riga, and only then consider moving abroad. Hazans (2015) also mentioned that people from Riga are less likely to remigrate, in this research the results show the opposite - that people who are not planning to return after emigration are not from Riga. What is also interesting, they are also most likely to be in a relationship, which might mean that either they are planning to move abroad together with their partner, or that their partner is a foreigner. However, the nationality of the partner is not controlled for in this paper, so this could serve as a potential improvement in similar further studies.

Moreover, some interesting insights can be drawn from the fact that stayers, who are top performers in the university, currently employed, holding a degree in economics and business, in a relationship, having studied outside Riga in high school, with little or no previous international experience, relatively lower level of English, and most likely getting a subsidized study placement, - value employment opportunities and work conditions higher than leavers with a reverted profile.

Potentially, if a person is employed already during the final year of studies, a greater evaluation can be made about the professional opportunities in Latvia, which also influences students to stay. Also, as the academic ranking was self-estimated by the respondents and showed that a majority indicated themselves as top performing students, in a sense portrays not only the academic performance, but also self-confidence, which might positively influence the assessment of the personal career opportunities locally. Potentially, those who have studied in high school in Riga also have built bigger social network that allows to find satisfying job opportunities better. Another explanation of this profile's evaluation of factors and choice to stay in Latvia could be that students of economics and business might have broader choice of vacancies and career advancement opportunities in Latvia, whereas, for example, medical students might be more willing to establish themselves abroad, where healthcare providers might be better valued and this industry's employees are better off.

Logical seems the aspect that those, who have previously been more exposed to international environment through work experience abroad and whose English is better, are more likely to emigrate. As this group of people have had more international experience, potentially they evaluate Latvia comparing to what they have seen through their previous travels abroad, and it allows them to look at all the factors more critically with their global perspective. However, we find it interesting that, comparing to the significant variable of previous experience working abroad, previous experience of studying abroad does not prove to be of any significance in students' decision to emigrate. Initially, it was assumed that international projects such as Erasmus, which, among other goals, aims to increase the mobility of young students in the European Union, should significantly influence the decision. Thus, this also might be an additional and interesting finding of the study - previous international project experience might not increase the mobility or emigration intentions among final year Bachelor students in Latvia.

Sensibly, being in a relationship seems to influence the decision to stay in Latvia, which is also interesting in a sense that the average profile of a potential emigrant is single and he or she values prospects of forming a family higher in countries abroad than in Latvia.

What is an economically positive aspect for Latvia is that those, who have studied with government subsidies are more likely to eventually stay in Latvia. This could either mean that these students have a positive view on the government support or it just shows that these people are less likely to afford moving to another country. Costs were also indicated as one of the barriers for emigrants, so if it was the biggest barrier for those, who have decided to emigrate and who are more likely to have paid themselves for the tuition fee, than those, who stay and who are more likely to have had subsidized studies, most probably are even more discouraged by the expenditures associated with moving abroad.

*RQ2: What are the reasons and barriers for emigration?*

From the separate questions that were asked to future leavers, some valuable discussion insights can be drawn. For example, analyzing the answers about the purpose of emigration, work appears as the most frequent answer for the purpose of moving abroad, and it can also be concluded from the influencing factors' part of the study - employment and education opportunities together with income are the driving factors for emigration. Also, from the regression analysis, leavers are most likely unemployed students, so they are more attracted to the job offerings in foreign markets due to perception that the desired destination country has higher level of income and career opportunities.

Most of the people, from the sample surveyed, indicate the desire to move to Germany, which is logical among leavers, who indicate that work is the main purpose for moving abroad, because among OECD countries Germany has the 4th lowest unemployment rate (OECD, 2017). The United States and Sweden have sequentially higher unemployment rates, yet still lower than in Latvia, which can explain the desire to move to these countries. What is interesting, that students are willing to move to Germany and Sweden, where it is necessary to know the local language in order to successfully integrate in the labor markets, but taking into account that leavers most likely are proficient in English, they potentially would not have issues with integration or they are good with languages and are confident in learning another language.

From the question regarding the intentions to return, it can be observed that almost 30% do not intend to return, thus, if 50% of 15'800 students (assumed graduates next year) plan to leave, then approximately 2'370 students do not plan to return. This intention is different among people from Riga and from other cities. People from Riga indicate that they

never plan to return by 13pp less than people from other cities. This might portray that people from other cities see less opportunities in Latvia than those originally from Riga. What is interesting, from the regression results, having studied in high school in Riga was not a significant variable in decision making, yet, looking at division of responses about return intentions, above mentioned differences are observed based on origin. 50% more Rigans also indicate plans to return to Latvia after already a month, thus it seems that those who are from Riga are also more likely to emigrate temporarily, and eventually return.

Among those, who never plan to return to Latvia, 52% are single, however, from the regression analysis, being single did not prove to be a significant result. Also, this can be compared to the influencing factors part of the study, where leavers evaluated prospects of forming a family higher in the destination country. Thus, we believe that, although, the relationship variable was not found to be of high significance, the factor of relationship status play some minor role in the decision-making process among students.

Similarly, although previous experience of studying abroad did not prove to be a significant variable among all the respondents, among those, who never plan to return, 40% had an experience of studying abroad and only 28% had an experience of working abroad, which was a significant variable. This might imply that those who had a study abroad experience, more favorably look at the career and education prospects in foreign markets.

Analyzing the barriers of moving abroad, language is ranked as the least notable barrier, and it can also be explained with the facts that those who are proficient in English are also more likely to emigrate, and among those, who do not even plan to return to Latvia, almost 80% have C level in English. Closeness to friends and family is the 2nd most significant barrier, which was also the lowest evaluated factor about the destination country, thus it can be concluded that emigrants do not have family or friends living abroad, which is again stated in the separate answer, where around 60% indicated that they do not have a social network abroad. Expenses is ranked as the most important barrier. From the previous study results it can be observed that leavers most likely funded their studies with personal funds, thus they should be at least moderately financially stable. However, from the evaluation of factors part of the study, income by the leavers is ranked as one of the three driving factors for emigration, thus, for some reason leavers, who can afford to fund their studies, are unable to find a job in Latvia or even do not want to do so, considering that leavers have most likely had a previous working experience abroad.

***RQ3:** What are the factors that influence final year bachelor students' emigration or stay intentions?*

It is viewed positively that students evaluate Latvia on the same level as the chosen country for residential opportunities, security and peace, cultural opportunities, and cleanliness of environment. This means that none of these factors influence the decision to emigrate.

It is not surprising that income is one of the driving factors to emigrate, however, it was expected that non-economic factors will play higher role among educated youth. It was expected due to the fact that the last 4 years the total unemployment rate in Latvia has steadily decreased or more specifically has decreased by 54pp and reached 15.5% level in the third quarter of 2016. This should imply that employment opportunities are increasing in Latvia. However, of course comparing to OECD countries, there is a room for improvement as Latvia is behind OECD average of 13.9% unemployment rate for 15-24 aged youth (OECD, 2017a). Nevertheless, in 2015 in Latvia, the unemployment rate by education level for people with tertiary education was 4.5% and it was slightly lower (by 0.3pp) than the OECD average, which is a good sign for youth holding a university degree in Latvia (OECD, 2017b). Comparing to 4<sup>th</sup> worst indicator of 10.7% among OECD countries for unemployment level with people holding only high school education diploma, university graduates should have better employment opportunities in Latvia. We believed that university educated youth should be able to find well-paid work opportunities also in Latvia, particularly in the first year after graduation. Taking into account the overall youth unemployment in Europe and steadily decreasing unemployment rates in Latvia, it was a bit surprising that some part of the young people still expects to have more employment opportunities with better wages abroad.

In contrast to findings of Dalen and Henkens (2008), dissatisfaction with governmental activities is not playing the most important role in the decision to emigrate among students from Latvia. Even though social security system, tax burden, and health care was evaluated slightly higher for the destination country, income, education, and work opportunities were the driving factors. Dalen and Henkens (2008) also pointed that having a network of friends abroad is a factor that strongly influences the decision to emigrate, however, in the results almost 60% did not have any friends in the destination country, thus we believe that among surveyed students this statement does not hold.

Hazans (2012) found that among respondents of Latvian households the most important factor that would prevent people from emigration was found to be family support, which could be classified under social security in this research, and it also was one of the factors among students. However, as the respondents in this paper are relatively young, they assumingly are not yet so concerned about family support, and more career related aspects are more important in their decision-making process.

In the same paper, Hazans (2012) also concluded that based on occupation the second highest risk group for emigration after students were unemployed, and it is also seen in the profile of the average leaver of this research. However, we cannot strongly have the same conclusions as Hazans, because non-working students are a different group than simply unemployed. Likewise, he found that males are more likely to emigrate from Latvia, however, in this research no significant results were generated for the gender variable, although from the descriptive statistics the results were the opposite from Hazans' - males among stayers were by 5pp more than among leavers. This portrays that in the specific sample, Hazans' finding does not hold true, and in this sample women tend to emigrate more after Bachelor studies. However, this variable is not significant from the regression results, and thus cannot be generalized for the whole population.

According to Hazans (2011), young and educated people should be willing to live, work, and study in Latvia in stable and good economic conditions. Captivatingly, it has been noted that, although GDP has recovered after the crisis (CSP, 2016e), the motivation to emigrate among young and educated is still high. Therefore, the aim of this research question was to look for undiscovered non-economic factors on the horizon that are increasingly motivating young and educated people to leave Latvia. However, what is seen from the results is that income and employment opportunities abroad are among the main drivers of emigration intentions. This raises question regarding the real situation in the economy – why the seemingly good recovery after the crisis still has not changed the emigration levels in Latvia? Potentially, the income, employment and education opportunities are just the most important and primary aspects for young and educated, which is the sample of this research, and this does not hold true for the population. In this case, a new conclusion can potentially be made about young and educated – the most important factors in deciding where to reside in the first years after graduation are the offered income and professional advancement opportunities.

Overall, we believe that the finding of Hazans (2011) should be looked at positively as it means that educated students from Latvia's universities are eager to stay in Latvia, but for that to happen, all the involved parties should work on creating an appropriate environment for these future key economic participants for a professional life in the domestic labor market.

## **5.2. What should be done?**

After analyzing the factors that motivate students into deciding to emigrate, we believe that these aspects could be changed, and not only by the policy makers, but also by the involvement of the private sector, which should be interested to have the access to locally available and highly skilled workforce.

Firstly, among the factors that both employers and employees could potentially try to work on to decrease emigration levels is most importantly - the remuneration. Although the private sector could try to rethink the current proposed starting salary ranges and raise their level to the extent possible, and, from the other side of the table, in this case, the recent graduates, could try to put more effort into negotiating starting salaries that are appropriate for their education level and would also satisfy their needs – wages still should reflect the productivity of the employees as employers would always want to maximize their profits. Thus, although this is one of the driving factors among leavers, unreasonable salary increases are unfortunately unlikely to take place. Yet, considering that the people in this study, who plan to emigrate, are holding a tertiary education diploma with proficient level of English, and are also young, it is believed that the productivity can be arguably higher than for an average employee, and thus the value of the contribution to any company can be negotiated to be higher than for an average worker.

Second, for the individuals to have higher level of income, public sector could reach out to assist with decreasing the tax burden, which is jointly agreed as one of the truly dissatisfying aspects of living in Latvia. We consider that the government should seriously review the current taxation system, and look for ways to decrease this burden from the people of Latvia. Although it would require courage among other aspects for the policy makers to implement radical changes to the current taxation system, potentially some brave decisions, like certain tax repeals (e.g. VAT, income tax) could possibly improve both the economic activity and eventually migration situation.

Considering that policy changes often make an impact only in the long-term and are quite difficult to implement, we believe that more unconventional methods could be used to

try to retain the students from emigration. Based on the analysis of the push and pull factors income was one of the three strongest push factors that made the leavers to migrate, therefore, we postulate that governmental institutions could put more emphasis on explaining the purchasing power of the wages, e.g. while a person can earn more money abroad, they are also possibly faced with higher living costs, which are comparatively lower in Latvia, therefore, in the end the person would be in the same financial position while having a lower wage in Latvia. To motivate the need for an education on these matters, it is interesting to note that, higher proportion of stayers in this study are economics and business students.

The results showing that 50% of the students are planning to emigrate, indicate a need for regular monitoring of emigration intentions among young people. This monitoring could also be used as a key performance indicator for policies, which focus on preventing young and educated to leave Latvia. As a reliable indicator of future emigration levels, yet also an indicator of a situation that still can be influenced, it could help to continuously evaluate the emigration risk among key human capital in Latvia. This or similar monitoring would be in line with the research by Kļave and Šūpule (2015), which found that there should be more incentives that focus on maintaining the existing human capital as it is considered to be the most appropriate direction to improve demographic situation in Latvia.

### ***5.3. Limitations***

We have acknowledged some of the limitations of the performed research that could limit the scope of results analysis.

Firstly, the sample size might influence the analysis of the results. Assuming that in 2017 the number of graduates will be the same as in 2016 - 15`800 (IZM, 2017), to achieve representable data, approximately 375 respondents were needed to have 95% confidence level with 5% confidence interval about student intentions from the universities mentioned. Currently, the sample size falls within 7% confidence interval (Cochran, 1977).

Second, there might be some generalizability limitations as it covers certain category of respondents, and does not include representable amount of opinions and plans of students from all higher education institutions in Latvia – only the opinion of students who noticed and responded to the online survey shared on social media, whose university representatives were willing to forward the information to them about the opportunity to participate in the survey, and those who were approached on RTU campus. RTU students were specifically approached on their campuses due to the reason that a comparatively lower number of online survey respondents were RTU students. Another possible bias in the field of study that is

taken into account while looking at the proportion of how many students filled out the survey from each university, it can be seen that, as a percent of all the students, SSE Rigans filled the survey significantly more than others.

Third, considering that surveys were employed as the data collection method, the number of variables analyzed was large which might have led to an issue of multicollinearity in the regression of student characteristics, while there also persisted a possibility of having an omitted variable bias. To overcome the issue of having similar questions or a lack of particular questions, several tests of the survey were initially performed before sending out the final survey to the target respondents. Thus, we consider that this has been avoided to the extent possible.

Also, some possible bias in the results might exist as the respondents could not propose their own factors for evaluation, however, we believe that the choice of answers were broad enough to cover all potential reasons that could influence the decision to emigrate or stay in Latvia.

We additionally speculate that the format of the influencing factors part of the study could have been designed differently. Currently, the survey analyze the importance of factors among leavers in their decision-making process indirectly: (1) asking for evaluation, and then (2) comparing the factor evaluations between to home and destination country. However, for example, looking at the evaluations of closeness to friends and family, it would be interesting to ask to the respondents not how they evaluate these factors about each country, but how important these factors are in their decision-making process about migration.

Although Dalen and Henkens (2008) have noted that stated preferences is a good predictor of actual preferences, we want to point out that these stated preferences can still change in case of unexpected external influences, and thus the mentioned predictions in the discussion of the results about the future demographic outlook is not carved in stone. However, as already mentioned, this design of the research was specifically chosen with a purpose to uncover the factors that highly skilled young citizens of Latvia value poorly before the actual migration. This helps to assist involved parties from public and private sector in creating strategies to retain the highly skilled workforce in Latvia.

## 6. Conclusions

The research about future demographic outlook in Latvia, which is based on emigration intentions among final year Bachelor level students, has provided useful insights and advancements in the knowledge of the issue at stake.

First, this study puts a step forward into offering more research on future migration that is based on stated preferences. We believe that it is important to find ways to influence the rates of exodus in situations like in the case of Latvia, where high levels of population international migration can put the demographic situation at risk. Studies of emigration intentions, before the actual decision has been made, provide additional ideas on the policies that could help in fighting the dying out of the nation, such as reforms in the taxation system, review of salary ranges by the private companies, providing more educational materials about economic aspects that affect potential leavers, among other ideas offered.

Second, this paper provides insights into factors that not only motivate leavers to move abroad, but also explains the motivation of those, who do not intend to emigrate in the near future. To be able to increase the number of stayers, there is a need to understand who the stayers are and what differentiates them from the leavers. From the results, it was observed that people, who are employed in the final year of studies and who have received an external funding for their studies more likely will stay in Latvia in the next two years. Also, compared to leavers, they look more positively at the factors in Latvia, and, they value further educational and employment opportunities notably better than leavers - by 2 evaluating units higher (in a scale of 7).

Third, in this paper the primary goal in providing better understanding of people, who are the most economically important and more likely to emigrate has been reached. Leavers mainly intend to emigrate due to economic reasons in the search for better employment and income opportunities in the foreign markets, but also, they have a strong interest in benefiting from educational offering in foreign countries. They also have proficient English knowledge, have had previous working abroad experience, but do not hold a job position in Latvia, and most likely they are not currently in a relationship. The most significant barrier for leavers to move abroad are expenses associated with emigration.

Further, the evaluations of distinct factors about Latvia and the destination country are provided, e.g. stayers value employment and educational opportunities notably better than leavers. Also, income, and social security system, quality of public services, cultural opportunities, and prospects for forming a family, among others, are valued more positively by stayers. The only factors that both, stayers and leavers, agree upon are the critical situation

about current tax burden, health care system, and good state of residential opportunities and the current security and peace situation in Latvia. The factors that leavers evaluate differently from stayers highlight the areas that need to be focused on in order to retain highly educated people in Latvia. From these research results, policy makers are reminded about the areas of the public domain that requires improvement, recruiters can consider improvements in the work conditions and career advancement opportunities to be able to attract and hire more talent, and general public can benefit informatively from the new knowledge about the future plans of the young and educated.

Also, this paper provides basis for speculations on future demographic outlook. With rough calculations, we speculate that, if no action is taken to change the current situation, approximately 8'000 educated youth will emigrate from Latvia in the upcoming 2 years, which, assuming the same emigration levels in Latvia, would form around 40% of all yearly emigrants. However, it is still unclear why people continue to migrate due to economic reasons when economy has recovered. Arguably, the economy might have recovered, whereas the perception of the recovery has not.

To sum up, the main goals set forward at the beginning of the research have been reached. However, we would like to point out once again that although the research on emigration intentions provides reliable forecasts of the actual emigration, it should be remembered, that the results of emigration intentions studies provides a future scenario in case no actions are taken to improve the current situation, and that these results still can be influenced. Thus, we sincerely hope for further action on the results, and believe that as long as the responsible parties proactively work on improving the migration flows, there still is a hope that young and educated might eventually postpone the stated plans to leave Latvia or put them off forever.

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## 8. Appendices

### *Appendix A. List of universities in Latvia*

#### State universities

1. Latvijas Universitāte LU
2. Rīgas Tehniskā universitāte RTU
3. Latvijas Lauksaimniecības universitāte LLU
4. Daugavpils Universitāte DU
5. Rīgas Stradiņa universitāte RSU
6. Liepājas Universitāte LiepU
7. Banku augstskola BA
8. J.Vītola Latvijas Mūzikas akadēmija JVLMA
9. Latvijas Jūras akadēmija LJA
10. Latvijas Kultūras akadēmija LKuA
11. Latvijas Mākslas akadēmija LMāA
12. Latvijas Nacionālās aizsardzības akadēmija LNAA
13. Latvijas Sporta pedagoģijas akadēmija LSPA
14. Rēzeknes Tehnoloģiju akadēmija (iepriekš – Rēzeknes Augstskola) RTA
15. Rīgas Pedagoģijas un izglītības vadības akadēmija RPIVA
16. Ventpils Augstskola VeA
17. Vidzemes Augstskola ViA

#### State colleges

1. Banku augstskolas Uzņēmējdarbības koledža BA UK
2. Daugavpils medicīnas koledža DMK
3. Jēkabpils Agrobiznesa koledža JAK
4. Latvijas Kultūras akadēmijas Latvijas Kultūras koledža LKuA LKK
5. Latvijas Universitātes P. Stradiņa medicīnas koledža LU PSK
6. Latvijas Universitātes Rīgas Medicīnas koledža LU RMK
7. Liepājas Jūrniecības koledža LJK
8. Malnavas koledža MK
9. Olaines Mehānikas un tehnoloģijas koledža OMTK
10. Profesionālās izglītības kompetences centrs „Rīgas Tehniskā koledža” RTK
11. Rīgas 1. medicīnas koledža R1MK
12. Rīgas Celtniecības koledža RCK
13. Rīgas Stradiņa universitātes Sarkanā Krusta medicīnas koledža RSU SKMK
14. Sociālās integrācijas valsts aģentūra SIVA
15. Ugunsdrošības un civilās aizsardzības koledža UCAK

16. Valsts policijas koledža VPK

17. Valsts robežsardzes koledža VRK

Higher education institutions founded by legal persons

1. Baltijas Starptautiskā akadēmija BSA

2. Biznesa augstskola "Turība" BAT

3. Eiropas Tālmācības augstskola\* ETA

4. Ekonomikas un kultūras augstskola EKA

5. Informācijas sistēmu menedžmenta augstskola ISMA

6. Latvijas Kristīgā akadēmija LKrA

7. Lutera Akadēmija LA

8. Rīgas Aeronavigācijas institūts RAI

9. Rīgas Ekonomikas augstskola (SSE Riga) REA

10. Rīgas Juridiskā augstskola RJA

11. Rīgas Starptautiskā ekonomikas un biznesa administrācijas augstskola (RISEBA)

12. Sociālo tehnoloģiju augstskola STA

13. Starptautiskā praktiskās psiholoģijas augstskola SPPA

14. Transporta un sakaru institūts TSI

Colleges founded by legal persons

1. Alberta koledža AK

2. Biznesa vadības koledža BVK

3. Grāmatvedības un finanšu koledža GFK

4. "HOTEL SCHOOL" viesnīcu biznesa koledža\* VBK

5. Juridiskā koledža JK

6. Kristīgās vadības koledža KVK

7. Latvijas Biznesa koledža LBK

8. Novikontas jūras koledža NJK

9. Starptautiskā kosmetoloģijas koledža (iepriekš – Kosmetoloģijas koledža) SKK

(IZM, 2016)

## ***Appendix B. Survey questionnaire***

Q0 Hi! This survey is intended for final year bachelor students studying in Latvia and its purpose is to find out student motivation to move abroad after finishing bachelor studies. Your answers will be anonymous and used for a bachelor thesis research at Stockholm School of Economics in Riga. If you are interested to see the results of the research at the end of the survey you will be able to leave your email address and we will contact you with further information.

### Q1 Age

- <20 (1)
- 20 (2)
- 21 (3)
- 22 (4)
- 23 (5)
- 24 (6)
- 25 (7)
- 26 (8)
- 27 (9)
- 28 (10)
- 29 (11)
- 30 (12)
- 31 (13)
- 32 (14)
- 33 (15)
- 34 (16)
- 35 (17)
- 36 (18)
- 37 (19)
- 38 (20)
- 39 (21)
- 40 (22)
- >40 (23)

### Q2 Gender

- Male (1)
- Female (2)

### Q3 Marital status

- Single (1)
- Married (2)
- Divorced (3)
- In a relationship (4)

### Q4 Latvian Citizenship

- Yes (1)
- Non-citizen (2)
- No. Citizenship: (3) \_\_\_\_\_

### Q5 Do you have a 2nd citizenship or permanent residency?

- No (1)
- Yes. Country: (2) \_\_\_\_\_

### Q6 City where studied in high school (dropdown list of cities)

### Q7 Current University (dropdown list of universities from Appendix A)

Q8 Field of studies (open answer question)

Q9 Current year of bachelor studies in higher education institution

- First year (1)
- Second - Pre-final year (2)
- Final year (3)

Q10 Your estimated overall ranking in class based on average grade

- Top 1/3 (1)
- Middle 1/3 (2)
- Bottom 1/3 (3)

Q11 Language of current studies

- Latvian (1)
- English (2)
- Russian (3)
- Other (4) \_\_\_\_\_

Q12 Please rate your language level A1 (Beginner) A2 (Elementary) B1 (Intermediate) B2 (Upper-Intermediate) C1 (Advanced) C2 (Proficiency/Native)

	A1 (1)	A2 (2)	B1 (3)	B2 (4)	C1 (5)	C2 (6)
Latvian (1)	<input type="radio"/>					
English (2)	<input type="radio"/>					
Russian (3)	<input type="radio"/>					

Q13 Payment of studies

- Government budget scholarship (1)
- Self-financed (2)
- University scholarship (3)
- Government's loan (4)
- Bank loan (5)
- Other (6) \_\_\_\_\_

Q14 Are you currently employed?

- Yes (1)
- No (2)

Display This Question:

If Are you currently employed? Yes Is Selected

Q15 Which of the following profession groups most closely matches the one in which you are employed?

- Accounting, Business Management, and Financial specialists (1)
- Advertising, Marketing, Promotions, Public Relations, and Sales Managers (2)
- Art, Design, Entertainment, and Sports specialists (3)
- Building and Grounds Cleaning and Maintenance Occupations (4)
- Chemistry, Biology, and Science specialists (6)
- Construction and related fields specialists (7)
- Farming, Fishing, and Forestry Occupations (8)
- Healthcare Practitioners and Technical Occupations (9)
- Installation and Maintenance mechanics and technical specialists (10)
- IT, Mathematics, and Computer Science specialists (11)
- Legal Occupations (12)
- Media and Communication Equipment Workers (13)
- Military Specific Occupations (14)
- Office and Administrative Support Occupations (15)
- Personal Appearance Workers (16)
- Production and Factory Manufacturing specialists (17)
- Protective Service Occupations (18)
- Psychological consultation and Social Work specialists (19)
- Sales, Service, and Retail specialists (20)
- Tourism, Hotel, and Catering specialists (21)
- Transportations and Logistics specialists (22)

Q16 Have you gone abroad before for work?

- Yes (1)
- No (2)

Q17 Have you gone abroad before for studying (e.g. Erasmus exchange)?

- Yes (1)
- No (2)

Q18 Do you intend to move abroad within two years after graduation for a period longer than one year for the purpose of studies, volunteering or work?

- Yes (1)
- No (2)

Condition: No Is Selected. Skip To: Answer about the situation in Latvia-....

Q19 For what purpose would you move abroad? (check all that apply)

- Work (1)
- Further studies (2)
- Volunteer work (3)
- Other: (4) \_\_\_\_\_

Q20 What country would be your first choice? (Dropdown list of countries)

Q21 What would be your intention for returning to Latvia?

- Return within one month to Latvia after studies/work/volunteering have finished in the destination country (1)
- Live abroad for less than 5 years then return to Latvia (2)
- Live abroad for 5-10 years then return to Latvia (3)
- Live abroad for more than 10 years then return to Latvia (4)
- Never return to Latvia (5)

Q22 What are the barriers for you to move abroad? (check all that apply)

- Required process of certification (exams and tests) (1)
- Expenses (exams, applications, traveling) (2)
- Getting visas (3)
- Language (4)
- Friends, family (5)
- None (6)
- Other: (7) \_\_\_\_\_

Q23 Do you have family members or friends living in the desired country who would assist you if you move abroad?

- Yes (1)
- No (2)

Q24 Answer about the situation in Latvia - If you cannot evaluate the factor, please mark: Neither satisfied nor dissatisfied

	Extremely dissatisfied (1)	Moderately dissatisfied (2)	Slightly dissatisfied (3)	Neither satisfied nor dissatisfied (4)	Slightly satisfied (5)	Moderately satisfied (6)	Extremely satisfied (7)
Further educational opportunities (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Residential opportunities (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of public services (e.g. police, paramedics, fire brigade, transportation) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The level of crime and corruption (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cleanliness of environment and place (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Security and peace (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tax burden (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social security system (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health care system (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employment opportunities (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work conditions (challenges, career advancement chance) (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Income (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prospects for forming a family (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Closeness to parents (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Closeness to friends (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural opportunities (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Display Question 25: If Do you intend to move abroad within two years after graduation for a period longer than one year... Yes Is Selected

Q25 Please, answer about the destination country you intend to move - If you cannot evaluate the factor, please mark: Neither satisfied nor dissatisfied

	Extremel y dissatisfi ed (1)	Moderately dissatisfied (2)	Slightly dissatisfied (3)	Neither satisfied nor dissatisfied (4)	Slightly satisfied (5)	Moderately satisfied (6)	Extremely satisfied (7)
Further educational opportunities (1)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Residential opportunities (2)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of public services (e.g. police, paramedics, fire brigade, transportation) (3)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The level of crime and corruption (4)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cleanliness of environment and place (5)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Security and peace (6)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tax burden (7)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Social security system (8)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Health care system (9)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employment opportunities (10)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work conditions (challenges, career advancement chance) (11)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Income (12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prospects for forming a family (13)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Closeness to parents (14)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Closeness to friends (15)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cultural opportunities (16)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q26 Thank you for filling out the survey. Please leave your e-mail here, if you are interested in the results of the research.

**Appendix C. Migration - reasons and barriers (Question 19-23)**

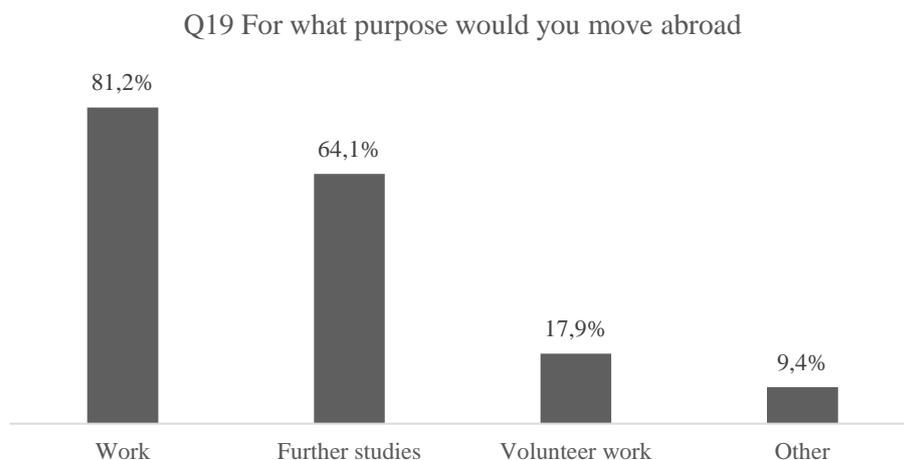


Figure C. 1 Purpose for moving abroad. Made by the authors

Country	Frequency	Percent
<b>Germany</b>	19	16.24%
<b>United States of America</b>	15	12.82%
<b>Sweden</b>	12	10.26%
The Netherlands	9	7.69%
Italy	8	6.84%
United Kingdom	8	6.84%
Denmark	6	5.13%
Norway	5	4.27%
Spain	5	4.27%
Australia	3	2.56%
Austria	3	2.56%
France	3	2.56%
Switzerland	3	2.56%
Finland	2	1.71%
Ireland	2	1.71%
Malta	2	1.71%
New Zealand	2	1.71%
Belgium	1	0.85%
Canada	1	0.85%
Central African Republic	1	0.85%
China	1	0.85%
Haiti	1	0.85%
Iceland	1	0.85%
Pakistan	1	0.85%
Portugal	1	0.85%
Russia	1	0.85%
Singapore	1	0.85%

Table C. 1 Q20 Country of first choice. Made by the authors

Q21 Intention for returning to Latvia

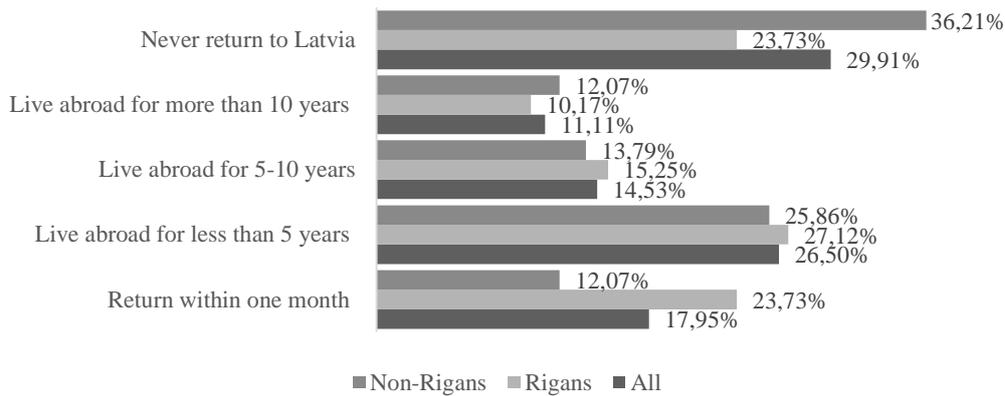


Figure C.2 Intention for returning to Latvia. Made by the authors

Q22 What are the barriers for you to move abroad?

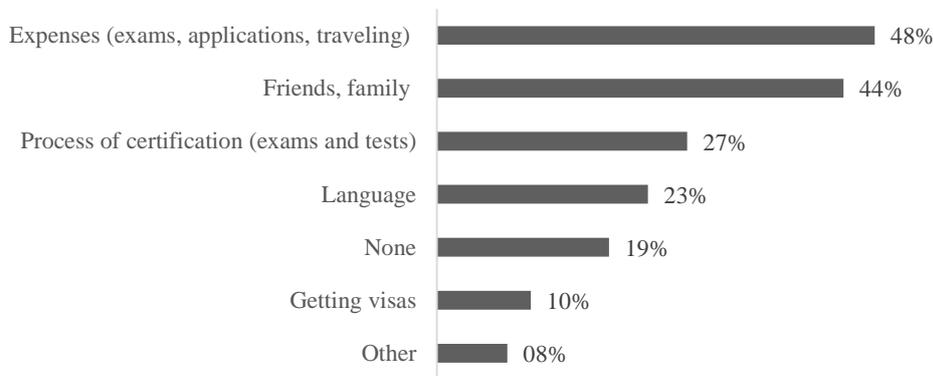


Figure C.3 Barriers to move abroad. Made by the authors

Q23 Do you have family members or friends living in the desired country who would assist you if you move abroad?

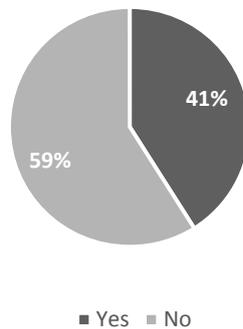


Figure C.4 Family and friends living abroad. Made by the authors

*Appendix D. Correlation analysis*

	migrate	age	male	single	Riga	econ	ttop
migrate	1.0000						
age	-0.0725	1.0000					
male	-0.0481	0.0720	1.0000				
single	0.0650	-0.0382	0.0414	1.0000			
Riga	0.0734	-0.0393	-0.0380	-0.1139	1.0000		
econ	0.1832	-0.2323	0.0444	0.0090	0.0425	1.0000	
ttop	-0.1150	0.0265	-0.0105	-0.0367	0.0882	-0.3452	1.0000
Latvian	-0.2078	0.1539	0.0036	0.0256	-0.2144	-0.6502	0.2856
English	0.2604	-0.0804	-0.0420	-0.0245	0.1815	0.3531	-0.0494
Russian	0.0969	-0.0605	-0.0231	-0.1212	0.0932	0.0796	-0.1006
self	0.2057	-0.0171	-0.1181	0.0176	0.1219	0.3313	-0.2460
empl	-0.1502	0.0727	0.0109	-0.1240	0.0044	-0.0702	0.1510
abwork	0.0743	0.1980	0.0054	-0.0393	-0.0460	0.0523	-0.0551
abstud	0.1685	0.0032	-0.0366	-0.0457	0.1702	0.3156	-0.1232
	Latvian	English	Russian	self	empl	abwork	abstud
Latvian	1.0000						
English	-0.4982	1.0000					
Russian	-0.1428	-0.0007	1.0000				
self	-0.4392	0.2809	0.0777	1.0000			
empl	0.0018	-0.0563	-0.0508	0.0036	1.0000		
abwork	-0.0071	-0.1024	0.0006	0.0067	0.0833	1.0000	
abstud	-0.4004	0.3257	0.0087	0.2233	-0.1576	0.1609	1.0000

Table E.1 Correlation analysis. Made by the authors

*Appendix E. Sample distribution of universities*

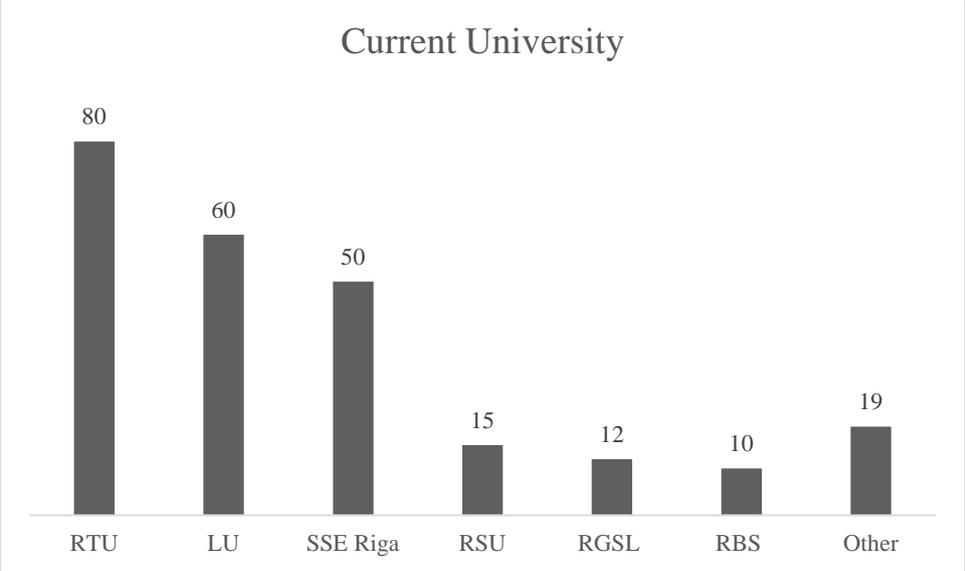


Figure F.1 Sample distribution of universities. Made by the authors