# Following the money of international students

An analysis of the sources of income for international students in the city of Groningen

**Bachelorproject: Assignment 7** 

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## **Summary**

Millions of students are studying abroad all over the world. Because travelling to and studying in another place is not free, these students need ways to finance their studies.

This research will focus on how international students based in Groningen choose to finance their life and studies and where this money comes from. By ways of quantitative research methods the sources of income of students from 36 nationalities have been analysed to clarify where the money they bring to Groningen comes from. The different ways international students can finance their studies are: financing by parents or family, scholarships, working, savings or loaning. Most of the money originates from the parents or family of these students. Students who are in Groningen for an exchange receive less money from their parents or family than students who are completing a degree in Groningen. These exchange students get a part of their funding from the Erasmus programme. Students who have the opportunity to receive a scholarship will have a large part of their funding sorted out and those who do not need to seek other opportunities.

The group of students who bring the most money to Groningen are students who are from Asia Another part of this research is to give an insight into the degree of satisfaction with study and life of international students in Groningen. The most important result from this is that students who consider their income sufficient for studying and living in Groningen are more satisfied.

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## **Chapter 1 - Introduction**

#### 1.1 Introduction

In a job market that is getting more and more competitive people have to make sure they stand out (Wang and Tseng, 2011). The process of distinguishing oneself does not begin after graduating from university but has to begin during the time spend studying. One way of doing this is studying abroad. It is a popular choice nowadays for students to study abroad for a period of time. Students do it to for reasons of education, to gain experiences and to develop oneself as a person (King and Sondhi, 2018). According to data from UNESCO the number of international students has grown from 1.1 million students in 1985, to 2.1 million students in 2000 and to 4.5 million in 2014 (King and Sondhi, 2018).

The city of Groningen in the Netherlands is one of the many places international students choose to study at. The city has two universities, Hanze University of Applied Sciences and the University of Groningen. The city has is a popular place for international students because with over 7.000 international students enrolled at the University of Groningen which has a wide array of studies with English as its main language (RUG, 2018).

However studying abroad is not free. Students who are doing a complete bachelor's or master's degree need to pay tuition to the university. And if non-European students come to Groningen to study they will need to pay a lot more than European students (RUG, 2018). Also, these international students all need to have a place to stay in the country that they are going to. Next to that they need to be able to afford food and because they still are students they need enough money to enjoy a party once in a while.

Next to having enough funds, it is important for both students and universities that students are satisfied with their study and their life. Students satisfaction is one of the priorities of a university. Universities need satisfied students to have a competitive advantage resulting in new students and student retention (Arambewela and Hall, 2009). Alemu and Cordier (2017) have stated that international students with a good financial situation will be more satisfied with their time spend studying at a foreign university. Apart from efforts put in by the universities, non-study related activities are important to improve the morale the students (Elliot, 2002). These non-study related activities combined with the previous mentioned spending posts force international students to have a good source of income. This raises the question: How are they paying for all this?

#### 1.2 Research problem

The main goal of this research is to analyse how international students studying at a university in the city of Groningen finance their studies. In addition to this, this research aims to determine the geographical sources of these funds and how these funds influence the satisfaction of international students in Groningen. Based on this a main research question and several subquestions have been composed.

The main research question is:

How do different types of international students studying at a university in the city of Groningen finance their studies and what are the geographical sources of these funds?

To fully answer the main research questions several subquestions need to be answered

- 1a. How do international students, according to the relevant literature, finance their studies abroad?
- 1b. To what extent are these sources used by international students currently studying at a university in the city of Groningen?
- 2. Can different groups of international students be identified, based upon the level and composition of their financial sources for their studies in the city of Groningen?
- 3. Is there a relation between the level of financial sources that international students have at their disposal, and their degree of satisfaction with their studies and life in the city of Groningen?
- 4. Where, geographically speaking, do the financial sources of international students in the city of Groningen originate?

#### 1.3 structure of thesis

The structure of this thesis is as follows. Chapter 2 will present the theoretical framework. Here concepts and theories about the subject will be discussed. This will set the framework that will be used in the analysis later on in the thesis. Also a conceptual model is shown to give a visual interpretation of how the different factors involved are affecting each other. In chapter 3 the methodology of this research will be explained. Here it will become clear how and where the data is collected and what the quality of the data is. In this chapter it will also become clear how the results are analysed. The results will be presented in chapter 4. The results will be discussed and analysed in this chapter. The results will be compared to the existing literature. Following in chapter 5 are the conclusions. The main research question will be answered here and recommendations for further research will be presented.

## Chapter 2 - Theoretical framework

This chapter will discuss theories and concepts from existing literature that are relevant to this research. It will be clarified why these theories and concepts are relevant and will set the framework that will be used in the analysis. At the end of this chapter a conceptual model presents the theories and concepts and shows how they link together.

## 2.1 Types of international students

In this research a distinction will be made for two types of international students. The first group of students are "degree mobility students". These students are completing a degree (bachelor's degree, master's degree, or PhD) in a foreign country. The other group of students are "credit mobility students". These students will stay enrolled in their home country but are receiving ECTS at a foreign university. This is for a limited period of time, mostly six months, in the framework of an exchange programme (Brooks & Waters, 2011). Comparisons between these two groups will be made in the analysis.

#### **2.2 Costs**

To understand how much funding international students in Groningen need an overview of the costs is needed. Because this research does not focus on the costs of studying in Groningen, the costs are not important for the analysis but they are presented to understand why an international students needs funding. The costs are based on numbers given by the RUG (2018).

The first spending post is rent. The universities in Groningen do not offer housing so students will need to find their own. On average the monthly rent is around €350 to €650 euros. Second is food and drinks. Students in Groningen spend on average €150 to €250 per month on food and drinks. The third spending posts is study costs like books. Students tend to spend a monthly average of €63 on this.

The next spending post is tuition and is only applicable to degree mobility students. Because credit mobility students are here via an exchange programme they will not need to pay tuition costs. Degree mobility students do need to pay tuition and the amount can vary a lot. According to the RUG (2018) international students from within the European Union need to pay €2.060 per year in tuition fees. For international students from outside of the European Union these tuition fees are ranging from €8.300 up to €32.000 per year.

According to the RUG (2018) students in Groningen, not just international students, spend around €800 to €1.000 per month.

#### 2.3 Funding

To fund their study and life in Groningen international students have several sources they can use. The sources used are based on literature by Findlay et al. (2016) and King and Sondhi (2018). The first source of income is financing by parents or family. This option is not available to every student, because not everyone's parents or family will be able to. King and Sondhi (2018) found that this source is the most popular among international students from the United Kingdom and India (79 out

of 200 students). Comparable data about international students studying in the Netherlands, especially Groningen, is not available.

The following source of financing is a scholarship. The largest exchange programme in Europe which provides scholarships to international students is the Erasmus Programme. This programme has 32 participating countries and has an annual budget of over 450 million euro (Souto Otero et al., 2013). International students who are eligible are European students who choose to study abroad in another European country. In the year 2013-2014 over 212.000 students have used the Erasmus Programme to study abroad and received an average of €255 per month (European Commission, 2014). Other scholarships are not specifically mentioned in this research.

Another way of financing is working in Groningen or using savings. Although some problems arise for students who want to work in Groningen but do not succeed in this. Some international students have trouble finding a temporary job in the host country. According to Nyland et al. (2009) students say that employers tend not to hire international students because they have a different work culture and there is a language barrier. These problems differ for students from different cultures. Also there tends to be a limit on how much a student can spend working before it will interfere with their study. Neill et al. says that working more than 15 hours per week will probably cause a student's well-being and study to suffer. This can be an issue for international students because they cannot extend their study programme like, for example, a Dutch student studying in the Netherlands can.

The final way of financing is using a loan. This can be a loan from a government institution or a bank. It depends on the country of the student if there is a loan available. While there can be other ways international students can finance their study, they are not specified in this research and will be referred to as "other".

#### 2.4 Satisfaction of international students

Student satisfaction is not simple. It is a complex concept consisting of many dimensions and factors (Marzo Navarro et al., 2005). A research among international students in South Korea has been done by Alemu and Cordier (2017) to identity which factors are important for students to be satisfied when studying at a foreign university. The most important factors according to Alemu and Cordier (2017) are to explore new cultures and experiences, the reputation of the study, culture, and financial reasons. This research will mainly focus on the financial reasons because the other factors are not relevant to this research. Alemu and Cordier (2017) say that students who receive a scholarship will have a better financial situation and therefore will be more satisfied with their experience at a foreign university.

#### 2.5 Conceptual model

Figure 1 shows a visual representation of the relationships of the factors included in this research. The research will show to what extend these factors affect each other.

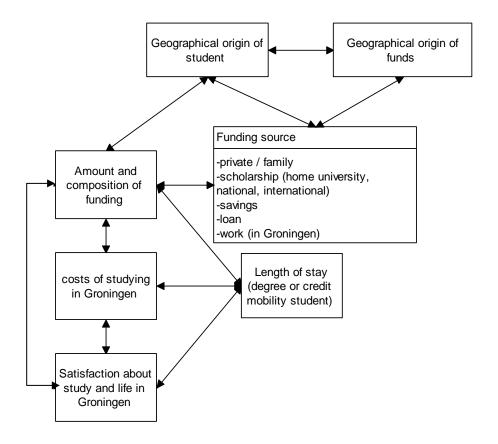


Figure 1 – conceptual model of the factors involved

The central concept in this model is the part "amount and composition of funding". How the funding is composed is, as seen, affected by multiple factors. In turn, these factors will also affect each other. For example, a Finnish credit mobility student will receive funding from the Finnish government and can receive a Erasmus scholarship. A non-European international student will not receive this government funding and is not eligible for an Erasmus scholarship and therefore has to look at alternative ways of funding their life and study.

## **Chapter 3 - Methodology**

#### 3.1 Research method

This research aims to show to what extend different sources of income are used by international students studying at a university in Groningen. Next to this the research aims to link the satisfaction about study and life in Groningen of the international students to their income. The research method that will be used for this is a quantitative research method. This method will be used because a representative view of the international student population is Groningen is needed. This involves a survey (appendix 1) to collect data about the international students. A survey is used to gather information about the characteristics, behaviours and attitudes of a population (Clifford et al., 2010). Because this research needs several characteristics and attitudes of the international student population in Groningen, the survey has proven to be the best instrument for gathering data.

The survey consist of multiple variables based on the literature given in the theoretical framework. The first variable is the type of student. This will determine if the student is a credit mobility student or a degree mobility student.

The second variable is the income of the student. This will be given as a number instead of a category to not compromise the usability, so the variable can be used to calculate an average.

The fourth variable will determine whether the international students considers their income sufficient for studying and living in Groningen.

The fifth variable are the sources of income used by the international students. The sources are based on literature by Findlay et al. (2016) and King and Sondhi (2018). These sources are parents or family, Erasmus scholarship, other scholarship, savings, working in Groningen, loan, and other. The sixth variable is the amount of hours students are working in Groningen.

The seventh variable is the satisfaction of students with their study and life in Groningen. This will be asked in a 5-point Likert-scale so it can be used to show correlation to other variables.

The last variable is the home country of the student. This variable can together with the income of students show which countries are bringing more funds to Groningen.

The survey was filled in by 107 international students from 36 different nationalities. Enough to make a meaningful statistical analysis.

The survey has been distributed as a paper version and a digital version. The paper version has been distributed to international students on the Zernike campus. The digital version has been posted on Facebook in multiple Facebook-Groups for international students in the city of Groningen. Quality of the data is decent, but not fully representative of the student population is Groningen because 87% of the respondents are students at the University of Groningen. All of the filled in surveys are completed and usable for the research.

#### 3.2 Analysis

Multiple ways of analysis are used in this research. The first way is descriptive statistics. This is used to textually and visually show how the sources of income are divided among the international student in total and divided into groups. This is done by calculating the amount of income from each

source for every student and taking the average of this. This average can be used to show the average share of each income source.

Next, four statistical tests are used in the analysis. The first one is a series of t-test to discover if there is a difference in income sources between credit mobility students and degree mobility students. The second test is a chi-square test to determine if degree mobility students and credit mobility students differ when placed in different income categories. The income groups are based on a boxplot of the income distribution. The fourth test is a Pearson correlation the see if monthly income is related to the satisfaction of students with their study and life in Groningen. The final test is an analysis of variance (ANOVA) used to discover if students who consider their income sufficient for studying in Groningen have a higher degree of satisfaction of living and studying in Groningen than those who do not.

#### 3.3 Ethics

For this research some ethical considerations need to be addressed. Because of the topic of this research the respondents will be asked about their income. This can be experienced as a sensitive subject for some of the respondents. To assure the comfort of the respondents it has been clearly stated that the respondents will remain completely anonymous and that the data will not be shared with any third parties.

During this research the main principles of ethical behaviour, as mentioned by Clifford et al. (2010), will be kept in mind. These principles are justice, beneficence/non-maleficence and respect. These principles will be used to minimize any possible harm or discomfort towards the respondents.

## **Chapter 4 - Results**

#### 4.1 Sources of income

In chapter 2 the ways in which an international student can finance their studies abroad have been described. As a recapitulation these sources are: financing by parents or family, Erasmus scholarship, other scholarship, savings, working in Groningen, loaning, and other. This chapter will present and discuss the sources of financing for international students in Groningen according to the survey. Figure 2 shows the average share for each source of income for international students in Groningen.

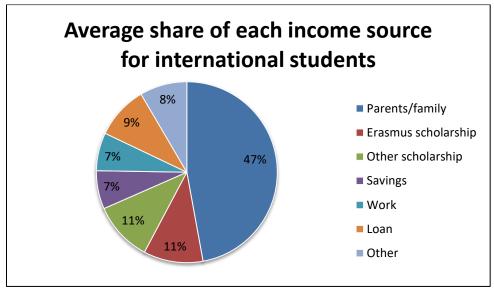


Figure 2

The survey reveals that international students in Groningen have an average income of €851,- per month. The chart shows the sources of income divided into percentages. Obvious is that the largest portion of income originates from the parents or from family. A study researching the income of international students from the United Kingdom and India by King and Sondhi (2018) shows more or less the same results. Their results show that 40% of the students are financed by their parents. Although it is measured in a different way, it still shows international students in Groningen are not divergent.

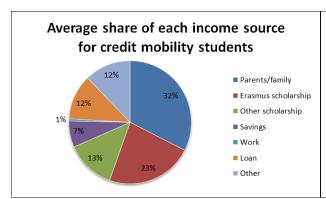
The second largest source of income, the Erasmus scholarship, is quite logical. 25% of the respondents receive the Erasmus scholarship and of those students 38% of their income is from this source. About the option "other scholarship" no comments can be made, because in the survey it has not been specified which scholarship is used.

Noticeable is that very little of the income of international students originates from working. An explanation could be that a lot of international students have issues finding a job in Groningen. As mentioned previously in this research, Nyland et al. (2009) comments that a lot of employers tend not to hire international students because of a difference in culture and because of a language barrier. If this is the case in Groningen cannot be said according to the data. But what can be seen in the data is that only 13% of international students in Groningen have a job compared to 70% of Dutch students (Nibud, 2017).

The amount of international students having a loan also differs from Dutch students. While, according to Nibud (2017), 55% of Dutch students has a loan, only 20% of international students in Groningen has a loan.

# 4.2 Comparison between credit mobility students and degree mobility students

The previous part talked about the sources of income for international students in Groningen as a total. The next part will discuss the differences and similarities between the sources of income for degree mobility students (bachelor, master and PhD students) and credit mobility students (exchange students). Statistical tests will be carried out to show if there is a significant difference between degree mobility students and credit mobility students. Figure 3 shows average share for each source of income for both types of international students.



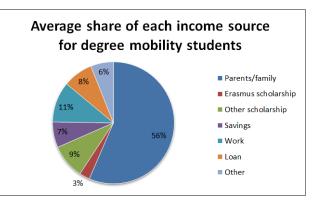


Figure 3

Immediately noticeable is the difference in use of the Erasmus scholarship. The Erasmus scholarship is meant for students studying in another European country for a period of time. That is why exchange students from Europe are eligible for this scholarship. Degree mobility students will have to replace this source of income with another type. According to the distribution of income more income originates form the parents or family of the degree seeking student. What is also weighing in is the fact that international students from outside of Europe have to pay a substantially larger tuition fee (RUG, 2018). Those non-European students are likely not to be able to afford that fee themselves and must resort to the help of family to finance their studies.

Another source of income that is noticeably different is the income generated by working in Groningen. Logically students that are studying here for an extended period of time will have more motivation and time to have a job.

To see if there is a significant difference between the sources of income of degree mobility students and credit mobility students a t-test for independent samples has been carried out. This has been done for the total income and for each of the sources of income. The full results of the statistical tests are displayed in appendix 2. First of all the test shows that there is no significant difference in total income between the two groups.

For two of the sources of income there is a significant difference. These two sources are parents or family and Erasmus scholarship. The p-values are 0,005 for parents or family and 0,000 for Erasmus scholarship. A significant difference in funding by parents or family is expected as seen in figure 3.

The test shows that degree mobility students receive €210 per month more from parents or family than credit mobility students on average.

For funding by the Erasmus scholarship it means that degree mobility students receive €170 per month less than credit mobility students on average.

The rest of the sources show no significant differences. Although the source work has a p-value of 0,067 and comes close it is still not significant.

To dig deeper into the total average monthly income for both groups the total average income is split into four groups. The groups are displayed in figure 4.

Group	Income
Below average	€0 - €700
Slightly below average	€701 - €850
Slightly above average	€851 - €1000
Above average	Above €1000

Figure 4

After splitting the data into the four groups it become it becomes apperent that there are slightly more degree mobility students in the above average groups and slightly more credit mobility students in the below average groups. This is shown in figure 5. To see if this is a significant difference a chi-square test has been carried out (appendix 3). The test has a p-value of 0,607 which means it is not significant. The interpretation of this is that there is no difference in total monthly income for degree mobility students and credit mobility students.

	Below average	Slightly below average	Slightly above average	Above average
Degree mobility students	41,3%	12,7%	22,2%	23,8%
Credit mobility students	41,5%	22%	17,1%	19,5%

Figure 5

## 4.3 Satisfaction with study and life in Groningen

Beside information on the sources of income of international students in Groningen, the respondents have also been asked how satisfied they are with their study and life in Groningen. Figure 6 shows the results of this. Clearly most of the students are satisfied with their life and study, because 73% stated that they are "satisfied" or even "very satisfied".

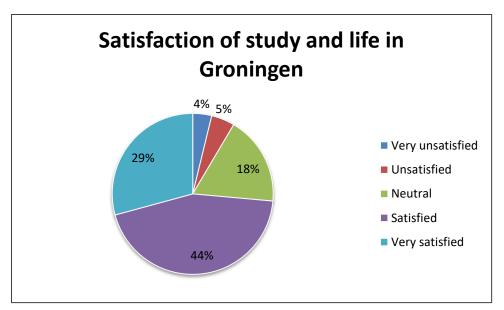


Figure 6

An explanation for their satisfaction has not been asked directly but two statistical analyses have been used to partially explain the outcome. The first analysis is to see whether the total monthly income of international students has any influence on the degree of satisfaction with their study and life in Groningen. The degree of satisfaction is the dependent variable and the amount of monthly income is the independent variable. The chosen statistical technique is the Pearson correlation. The Pearson correlation gives a non-significant outcome, meaning that the amount of income does not have an influence on the satisfaction of an international student in Groningen (see appendix 4)

The second analysis tries to discover if international students who consider their income sufficient for studying and living in Groningen have a higher degree of satisfaction of living and studying in Groningen than international students who do not. The dependent variable here is the degree of satisfaction and the independent variable is sufficient income. The statistical technique used there is an analysis of variance (ANOVA). The outcome of this analysis is significant and means that there is a difference between students who consider their income sufficient for studying and living in Groningen and those who do not when it comes to the degree of satisfaction.

## 4.4 Geographical origin of funds

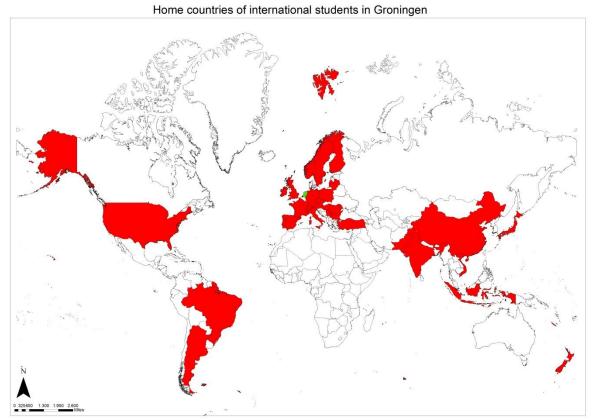


Figure 7

This paragraph will give an overview of the home countries of the students in this research. Figure 7 gives a visual representation of the home countries. The amount of nationalities in this research is 36. According to this figure the students come from almost all of the western countries and some of the non-western countries. From all of the students involved in this research 75% comes from within Europe. The European students studying in Groningen have an average income of €861.- per month, which is slightly higher than the average of all students. The non-European students have an average income of €807 per month.

Most of the students coming from non-European countries are credit mobility students (65.4%). Of the international students coming from Europe this is only 30.8%. This research does not go into reasons why non-European students are mostly credit mobility.

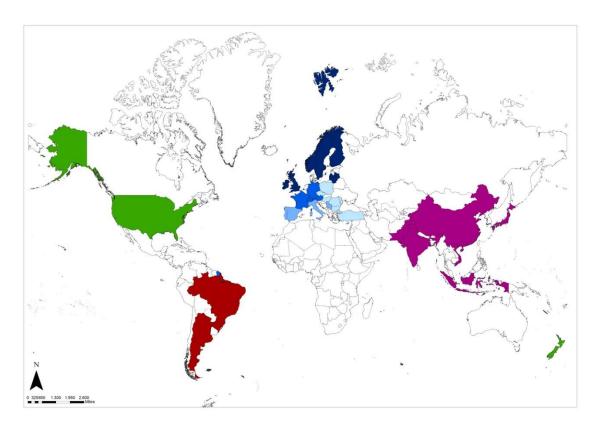


Figure 8

To see how much money comes from each country is impossible given the small amount of respondents per country. This number lays between 1 and 15. But it is possible to show the average amount of money per region of the world. For this only two sources of income can be used. These sources are parents or family and savings. For the rest of the sources the money does not come from the home country of the students or it is not clear where it originates. For example the Erasmus scholarship does not come from the home country of a students but from the European Union. Figure 8 displays the different regions which are used. In this figure Europe is split up into different sections which are based on a grouping by the United Nations. Turkey is in this map added to east Europe. The average amount of monthly income by region from the two aforementioned sources are displayed in figure 9. The region with the lowest amount of monthly income is north Europe. An explanation for this is the income from Finland. There are 5 respondents from Finland and their average monthly income from parents and savings is just €60. These Finnish students get their income from other sources than the two used for this comparison which brings the average from this region down.

Region	Average monthly income from parents and savings
1. Asia	€691
2. West Europe	€671
3. South Europe	€492
4. South-America	€470
5. USA & New Zealand	€436
6. East Europe & Turkey	€397
7. North Europe	€231

Figure 9

## **Chapter 5 - Conclusions**

#### 5.1 Conclusions

The goal of this research was to describe and analyse the sources of income of the international students studying at a university in the city of Groningen. This also involved showing the geographical origin of these funds. This research also includes an analysis of the degree of satisfaction with study and life of the international students in Groningen.

The sources of funding based on the literature from Findlay et al. (2016) and King and Sondhi (2018) are financing by parents or family, Erasmus scholarship, other scholarship, savings, working in Groningen, or loaning. 47% of the income of international students in Groningen comes from the parents or families of those students. This is in line with what King and Sondhi (2018) have found in their research. The most obvious difference with international students and Dutch students is the percentage of working students. Which is 13% for international students and 70% of Dutch students (Nibud, 2017). Further research can reveal why international students don't work as much and if this is a problem.

When comparing credit mobility students to degree mobility students it became apparent that degree mobility students receive a larger share of their income from parents or family. Statistical tests show that there is no difference in income between two groups in total. But for the sources parents or family and for Erasmus scholarship a significant difference has been found. It shows that on average degree mobility students receive €210 per month more from parents or family and credit mobility students are receiving €170 per month more from an Erasmus scholarship.

The overall degree of satisfaction with study and life of international students in Groningen is high. 73% of the respondents said to be satisfied or very satisfied in Groningen. It is also apparent that international students who consider their income sufficient for living and studying in Groningen are very likely to be satisfied with their life and studies. However, the amount of monthly income appears not to have an influence on the degree of satisfaction.

This research did not dig deeper into the reasons why international students are satisfied or not. In further research a more elaborate analysis of student satisfaction can shed light on the reasons why a student is satisfied with study in and life in Groningen. Important factors to research would be experiences, reputation of the study, and the culture of the Netherlands based on the results from Alemu and Cordier (2017). Results of this can help improve the quality of life for new international students choosing to study in Groningen

Students in this research come from 36 different countries all over the world. 75% of the students come from within Europe. Most of the European students are degree mobility students and most of the non-European students are credit mobility students. To display the geographical origin of funds the average amount of income from the sources parents or family and savings was calculated for different groups of countries. The group with the highest income is Asia with an average income of €691 and the group with the lowest income is the north of Europe with an average income of €231.

North Europe is very low on this list because of the low average income of Finnish from the two sources. With more data per country an average income of students per country could be calculated and would give a better overview of countries who bring more funds to Groningen.

#### 5.2 Reflection

The first major item that could be improved in this research is the number of respondents who participated in this research. This research uses data from 107 respondents, which is just enough to make a meaningful statistical analysis. More cases would have made the analysis stronger and more statistically accurate. Next to this, more cases would also result in more cases per country. This would improve the results in chapter 4.4. Here the countries are divided into regions. With more cases per country it would be unnecessary to group countries together. This would results in a world map were countries could individually be scaled from high to low income.

Another item that could need improvement is the analysis on students satisfaction about study and life in Groningen. An improvement could be extra questions in the survey about different facets of satisfaction to give an insight into what is important for international students. To clarify even more on this subject, in-depth information could be gathered by conducting semi-structured interview to find reasons for student satisfaction.

The final item is the literature research. If more survey questions and analysis are added about student satisfaction, more research would be needed about this topic. The current literature research is limited to only the financial side of this topic.

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## **Appendixes**

#### Appendix 1 – Survey

Dear student,

I am a student at the Faculty of Spatial Sciences of the University of Groningen. For my bachelor thesis I am researching how international students in Groningen finance their studies. In addition to this, this research aims to determine the geographical sources of these funds.

Answering this survey will only take a few minutes. For your privacy the data gathered with this survey will be completely anonymous and the answers will not be shared with third parties.

If you have any question regarding this survey, feel free to e-mail me at: B.D.Lodeweges@student.rug.nl

Thank you for your cooperation

1. How old are you?
2. What is your gender?
0 Male
0 Female
0 Other
3. At which institution do you study?
0 University of Groningen
0 Hanze University of Applied Sciences
4. What kind of international student are you?
0 Completing a Bachelor's degree in Groningen
0 Completing a Master's degree in Groningen
O Participating in an Exchange program (one or two semesters in Groningen)
0 PhD student in Groningen
5. What is your estimated amount of income per month while staying in Groningen? (Please, if applicable, recalculate your annual income into an average per month)
€ on average per month
6. Do you consider your income sufficient for studying and living in Groningen?
0 Yes
0 No

7. What are the sources of your incom	ne in percentages? (rounded off to 10%, e.g. 10%, 20%, 30%)
-Parents/family:	%
-Grant or scholarship (Erasmus):	
	%
	%
-Working in Groningen:	%
-Loan:	%
-Other:	%
-Total	100%
8. How many hours do you work in Gr	roningen (If you don't have a job in Groningen, please enter 0)
9. How satisfied are you, overall, with	your study and life in Groningen?
0 1. Very unsatisfied	· · ·
0 2. Unsatisfied	
0 3. Neutral	
0 4. Satisfied	
0 5. Very satisfied	
10. When did you start your studies in	n Groningen? (Month - Year)
11. What is your home country?	
12. Do you have any additional comm	ents on this survey or on this research?

Thank you for your cooperation!

Appendix 2

T-tests for independent samples used in chapter 4.2.

**Group Statistics** 

		roup Statisti	03		
	Credit-Or-Degree	N	Mean	Std. Deviation	Std. Error Mean
Total income	DegreeMobility	63	860,95	374,349	47,164
	CreditMobility	41	848,63	440,845	68,848
Income parents	DegreeMobility	63	486,30	386,120	48,646
	CreditMobility	41	276,17	322,101	50,304
Erasmus Scholarship	DegreeMobility	63	23,97	137,366	17,307
	CreditMobility	41	194,12	227,037	35,457
Other scholarship	DegreeMobility	63	78,90	221,778	27,941
	CreditMobility	41	110,24	250,142	39,066
Income savings	DegreeMobility	63	58,40	138,017	17,389
	CreditMobility	41	58,93	125,206	19,554
Income work	DegreeMobility	63	93,00	303,378	38,222
	CreditMobility	41	4,88	25,605	3,999
Income loan	DegreeMobility	63	68,43	211,682	26,669
	CreditMobility	41	100,76	215,962	33,728
Income other	DegreeMobility	63	51,95	202,935	25,567
	CreditMobility	41	103,54	430,117	67,173

		Equality of	Variances			t-test fo	or Equality of	f Means		
						Sig. (2-	Mean	Std. Error	Interva	l of the
		F	Sig.	t	df	tailed)	Difference	Difference	Lower	Upper
Total income	Equal variances assumed	,018	,893,	,153	102	,879	12,318	80,612	-147,575	172,212
	Equal variances not assumed			,148	75,608	,883,	12,318	83,454	-153,908	178,545
Income parents	Equal variances assumed	4,659	,033	2,890	102	,005	210,131	72,711	65,909	354,353
	Equal variances not assumed			3,003	95,764	,003	210,131	69,978	71,221	349,041
Erasmus Scholarsh ip	Equal variances assumed	28,895	,000	-4,764	102	,000	-170,154	35,717	-240,998	-99,310
	Equal variances not assumed			-4,313	59,163	,000	-170,154	39,455	-249,099	-91,208
Other scholarshi P	Equal	,648	,423	-,669	102	,505	-31,339	46,816	-124,198	61,520
	Equal variances not assumed			-,652	78,192	,516	-31,339	48,030	-126,955	64,277
Income savings	Equal variances assumed	,093	,760	-,020	102	,984	-,530	26,716	-53,520	52,460
	Equal variances not assumed			-,020	91,401	,984	-,530	26,167	-52,505	51,445
Income work	Equal variances assumed	11,697	,001	1,852	102	,067	88,122	47,570	-6,232	182,476
	Equal variances not assumed			2,293	63,353	,025	88,122	38,431	11,333	164,911
Income Ioan	Equal variances assumed	,537	,465	-,755	102	,452	-32,328	42,814	-117,250	52,594
	Equal variances not assumed			-,752	84,376	,454	-32,328	42,998	-117,828	53,173
Income other	Equal variances assumed	2,129	,148	-,823	102	,412	-51,584	62,681	-175,913	72,744
	Equal variances not			-,718	51,729	,476	-51,584	71,874	-195,828	92,660
	assumed									

## Appendix 3

Chi-square test used in chapter 4.2

Credit-Or-Degree \* Income\_level Crosstabulation

			Income_level				
			average	-average	+average	++average	Total
Credit-Or-Degree	DegreeMobility	Count	26	8	14	15	63
		Expected Count	26,0	10,3	12,7	13,9	63,0
	CreditMobility	Count	17	9	7	8	41
		Expected Count	17,0	6,7	8,3	9,1	41,0
Total		Count	43	17	21	23	104
		Expected Count	43,0	17,0	21,0	23,0	104,0

**Chi-Square Tests** 

			Asymptotic Significance (2-
	Value	df	sided)
Pearson Chi-Square	1,835 <sup>a</sup>	3	,607
Likelihood Ratio	1,811	3	,613
Linear-by-Linear Association	,330	1	,566
N of Valid Cases	104		

a. 0 cells (0,0%) have expected count less than 5. The minimum expected count is 6,70.

Appendix 4

## Correlation used in chapter 4.4

#### Correlations

	Correlations		
			Satisfied with
		Total income	study and life
Total income	Pearson Correlation	1	,052
	Sig. (2-tailed)		,595
	N	107	106
Satisfied with study and life	Pearson Correlation	,052	1
	Sig. (2-tailed)	,595	
	N	106	106

## Appendix 5

## ANOVA used in chapter 4.4

## ANOVA

Satisfied with study and life

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	10,799	1	10,799	11,915	,001
Within Groups	94,257	104	,906		
Total	105,057	105			