

Return migration of high skilled workers: The case of Suriname

by

Faculty of Social Sciences, Anton de Kom University of Suriname

and

Philip Hans Franses

Econometric Institute, Erasmus School of Economics

Econometric Institute Report 2015-03

Abstract

In this paper we study the determinants of skilled return migration from the Netherlands to Suriname. Based on a survey of Gibson and McKenzie (2011) we managed to interview 283 former top students from Suriname. This unique database is informative in various dimensions. High skilled workers whose education was funded by a scholarship or by the parents are more likely to return. They tend to choose for the country where their parents, lifepartner and children live. Workers that perform management tasks and/or are in touch with clients exhibit higher chances to live in the home country. One might think of consultants or business managers. Furthermore we find that preferences towards the Netherlands regarding salaries, job contentment, and safety, lower the likelihood of opting for Suriname in the future. Facilitating high skilled workers in Suriname helps to increase return migration, and policies aimed at facilitating family members can also be beneficial. Scholarships and supply of tertiary education in Suriname remain important.

JEL code:

Keywords: return migration, brain drain, brain gain, high skilled, tertiary education.

This version: 19 January 2015

Address for correspondence: Tina Dulam, Faculty of Social Sciences, Anton de Kom University of Suriname, Leysweg 86, Paramaribo, Suriname, twdulam@gmail.com, tina.dulam@uvs.edu

1. Introduction

In recent years public and policy debate on Surinamese diaspora from the Netherlands have gained much ground. Previous research (Beine et al., 2008; Dulam & Franses, 2011) indicates that Suriname is a case of brain drain rather than brain gain, implying that there is a net outflow of high skilled migrants. Yet, specific policy aimed at attracting high skilled migrants to Suriname has been negligible. If migrants bring back financial and human resources accumulated abroad to the home country, brain drain can be counterbalanced.

In order to formulate policies to counterbalance brain drain it is crucial to find out what drives return migration¹. The relevant literature discusses several motives at the microeconomic level. We identify four types of motives: 1) completion of the optimal life-earnings cycle (Borjas & Bratsberg, 1996); 2) failure to succeed abroad (Borjas & Bratsberg, 1996); 3) individuals' preferences for a specific country (Gibson & McKenzie 2011; Constant & Massey, 2003) and 4) family or social attachments (de Jong 2009). The first motive of return migration refers to individuals who consciously choose to move abroad to accumulate wealth and then return. The second motive relates to the selectivity on skills, i.e. when the rate of return to skills is higher in the host country relative to the home country, the most skilled remain in the host country and the least skilled return. Dustmann et al. (2011) proposed a two skills model comprising of the educational level and the job tasks to measure selectivity.

Since the 1950's pursuing higher education has been one of the main reasons why Surinamese move to the Netherlands (Bovenkerk, 1981; Vezzoli, 2014). The Netherlands is not only the main emigration destination of Suriname, but also the main immigration country. 60% of the 10,553 Surinamese who ever lived abroad, are from the Netherlands (General Bureau of Statistics (GBS), 2013). 10,248 individuals, a third of the 33,053 holders of foreign citizenship who live in Suriname, have the Dutch citizenship of which only 182 are Caucasian and the rest are from ethnicities that are more common in Suriname. According to the 8th census of the GBS (2013) the main reason of return migration is patriotism. Family reunification is the second reason and the third main reason is the completion of education abroad. While return migration estimates for Suriname are available (Vezolli 2014; GBS, 2013, Statline data at www.cbs.nl), return migration rates of high skilled Surinamese are not. Dulam & Franses (2014) estimated that a third of the emigrated former top students to the Netherlands returned to their home country. However, as we will see later and as Klaver et al. (2010) discussed, moving back to the Netherlands is a very likely option.

Scholars have written much about emigration patterns from Suriname to Netherlands and the motives behind. Return migration of highly educated Surinamese has been of minor interest so far.

¹ The terms return migration and remigration are used interchangeably throughout this paper.

Our endeavour with this paper is to fill in this research gap. We surveyed former top students of Suriname, who now either live in Suriname or in the Netherlands. We managed to interview 283 former top students using Gibson and McKenzie's survey, which was extended with questions about job tasks conform Autor & Handel (2009). For their research, Gibson and McKenzie surveyed former top students of three Pacific countries: Papua New Guinea, Tonga and New Zealand. Even though their questionnaire contained scale level measurements of migration intention, they did not use these to predict migration but carried out probit regressions on the basis of a nominal indicator for return migration. In this paper we use both the nominal and scale measurements of return migration and perform logit and Tobit regressions, respectively.

The remainder of this paper is organized as follows. The next section reviews the literature of return migration. Section 3 describes data collection, the variables used in the data analysis and the methods of data analysis. Section 4 presents the empirical results on the determinants of return migration to Suriname. Section 5 concludes and discusses some policy implications.

2. Theoretical background

Based on the Roy model of 1951, the economic literature (in particular Borjas & Bratsberg, 1996) reviews two main reasons of return. The first is the optimal life-earnings cycle, where the migrant returns to the home country after achieving the migration goal of increased wealth abroad. The completion of the life-earnings cycle occurs mostly after the prime working age. By conducting a duration analysis to analyse the return migration of immigrants in Germany, Gundel and Peters (2008) determined that migrants, who were in the prime working age (between 30 and 40 years old), were less likely to return as their optimal life-earnings cycle was not yet completed. Through their survival analysis on returning immigrants from Germany, Constant and Massey (2003) established a positive relationship between the oldest age group (retirement) and return migration, reflecting the completion of the life-earnings cycle.

The second main reason to return is failure, i.e. the migrant is disappointed abroad because of worse than expected experience and returns. Borjas and Bratsberg (1996) explain that when the rate of return to skills in the home country is lower than in the destination country, the best of the best will move to the destination country (initial positive selection) and that amongst them the worst of the best will remigrate to the home country. In his study Borjas (1987, p. 21) found that immigrants who did not perform well in the labor market of the United States of America (USA) were more likely to outmigrate or to return to the home country. He also found that the least successful scientists and engineers in the USA were the most likely to return. Performing probit regressions, Gibson and McKenzie (2011) found that PhD degree holders, who migrated from Papua New Guinea, New

Zeeland and Tonga to other countries, had lower probabilities to return to the home country than those who had no PhD degree. If the initial selection of emigration to the host country is negative, the best of the worst will return (Borjas & Bratsberg, 1996). Gundel and Peters (2008) confirmed that the high skilled immigrants in Germany were more likely to return than the less skilled.

Ambrosini et al. (2011) determined that higher income premia for return migrants in the home country, which is Romania in this case, induce return migration. Gibson and McKenzie (2011) found no evidence of this with respect to the Pacific high skilled return migrants. They remark that Borjas's income maximization motive for migration is based on migration *across* skill levels and that within a *narrow* skill level, other factors may be more important in explaining mobility decisions.

Social and cultural ties (Wang & Fan 2006; Constant & Massey, 2003) are some other motives for return. Using probit models, Dustmann (2003) analysed the role of children in migration decisions. Parents who perceive the environment and career prospects for their children to be better in the host country are reluctant to return. Gibson and McKenzie (2011) confirmed that having close relatives (parents and/or spouse) living in the home country encourages return migration.

Furthermore Dustmann (2003) and Constant and Massey (2003) found the duration of migration (years of living abroad) to be negatively associated with return migration. Integration with the destination country deepens as the migrants stay longer. Settlement in the destination becomes a viable option, and likewise the attainment of the destination country's citizenship, thereby further reducing the prospect of return. According to Constant and Massey (2003, p. 643) the finding that shorter migration duration leads to return migration might be a sign of failure in the destination country. However the short migration duration in the case of top students might imply that the migrant returns after achieving the migration goals (mainly educational attainment).

The attractiveness of one country with respect to the other may be a good predictor of migration. Gibson and McKenzie (2011) and Gungör and Tansel (2006) also analysed the effect of a range of indicators for country attractiveness (push and pull factors). Most of the indicators were related to salaries, work environment, career and education opportunities, safety, and lifestyle.

3. Methodology

3.1 Background

We gathered microeconomic data through an online survey which we sent out to 497 former top students of Suriname, but not all of them responded. The survey was meant for individuals who live in Suriname or in the Netherlands. It was not always clear where the survey candidate lived. Some candidates might have neglected the survey because the survey was not intended for them (as they were former top students but did not live in Suriname or in the Netherlands). Mortality might also

have led to non-response. The survey may have required too much information from the respondent: 99 questions, including questions on marital status, income and place of residence, which also might have discouraged the response to the survey. In the end, we managed to survey 283 former top students.

A former top student is defined as an individual who was one of three best graduates of his/her high school in Suriname. The Rotary Club yearly organises the best student award and the names of the best students are generally published in local newspapers. We started collecting the names of the former top students by searching throughout local newspapers of the period 1976 – 2006. Furthermore we contacted the high schools and asked for the names of the three best graduates of their schools for the mentioned period. Gladly most of the high schools were willing to cooperate. Through extensive search on the internet we found ways, mostly via LinkedIn and Facebook, to contact the former top students.

We confine our research to this period as broad university education in Suriname became available since 1976. Some of the questions in the survey were related to job and income. And thus we choose as final year 2006 so that by 2013 the former top student already must be in employment. Also respondents who now live in another country other than Suriname and the Netherlands were excluded. In this paper we analyse over 60 questions, including questions about country preferences, education, job, and tasks at work.

3.2 Data and hypotheses

Return migration is the dependent variable. To measure return migration we use several indicators. The first is an indicator variable “remigration”, taking the value 1 if the respondent has ever lived in the Netherlands and 0 if the respondent currently lives in the Netherlands. This will enable us to analyse why some former top students return to the home country while others remain abroad. We also measure the intention to return to the home country by asking the current migrants to indicate, with a percentage between 0 and 100 percent, the chance of returning to Suriname respectively within one year, within 10 years and after retirement. Comparably, we asked the remigrants to Suriname what the chance was of going back the Netherlands within the aforementioned time frames and after retirement. To the non-migrants we asked what the chance was of leaving Suriname and going abroad. We converted all the percentages in a way that we could compare the percentages across all three groups, creating respectively our second, third and fourth construct for the intention to live in Suriname, namely: what is the chance that the respondent will live in Suriname in 1 year time, in 10 years time and after retirement. Note that in our first construct the non-migrants are excluded, whereas in the latter constructs all three subgroups are considered. Furthermore the first construct is a binary measure for return migration to Suriname, while the latter ones are continuous variables.

The independent variables can be categorized conform the four identified motives in the literature review section of this paper. The first is to test whether return migrants are positively or negatively selected on observable skills. In our study all migrants were initially positively selected since they were all top students of the high schools. It is expected that the best of the best will be more likely to succeed abroad and worst of the best -the less skilled among the highly educated- will return, a sign of failure. To measure the skills we will look into the educational level of the respondent, the highest education level of the partner, the years of education, the years of education abroad, the educational degree and the tasks the respondent generally performs at work. To measure the educational level of the respondent we create 4 dummies for the highest degree the respondent has: PhD, Msc in technical, medical and social science and the reference group was the formed by the respondents with a Bsc. or vocational degree. The highest educational level of the life partner ranges between 1 and 6 where 1 stands for primary school, 2 for secondary school, 3 for high school, 4 a Bachelors degree, 5 a Masters degree and 6 a PhD degree.

To measure the job tasks we asked the respondents to give us some indication whether they were involved in physical, short and repetitive and management tasks during a workday. These questions were asked on a 5 point scale, where 1 meant almost never, 2: for less than half of the day, 3: half of the day, 4: more than half of the day and 5 almost the whole day. We also made an attempt to measure some other cognitive tasks, namely whether the respondent had to have contact with patient, students, clients or suppliers. These questions were measured on a 4 point scale, where 1 indicated no contact at all, 2: little contact, 3: average contact and 4 much contact. We transformed these variables into dummy variables for easier interpretation, where 1 meant that the respondent performs this task at work and 0 that s(he) does not.

The second motive to return is the completion of the optimal life cycle. Here the migrant reaches his optimal life-earnings cycle after spending the prime working age in the Netherlands and returns thereafter (Borjas & Bratsberg, 1996). We expect migrants from the older agegroups to be less likely to return to the home country. We categorize the respondents into three age groups: 24-30 years, 31-39 years and 40-59 years. We furthermore expect that longer stay duration will reduce the likelihood of returning to the home country. The migration duration is measured as a continuous variable: years spent in the Netherlands. We also use 4 dummies for the migration duration: 1) 0 years, 2) between 1 and 5 years, 3) between 6 and 10 years, 4) between 11 and 20 years and the reference variable indicating a migration duration of longer than 20 years.

The third motive refers to social attachments with the home country. It is expected that return migration will be more likely if the migrant's parents, children and lifepartner live in the home country. Parents played an important rol in funding the education of their children. 68% of the former top students's education was funded mainly by the parents and of 11% the education was mainly

funded by scholarships. We also test the influence of these funding methods on the return migration intention.

The fourth motive refers to push and pull factors that tell us something about the country attractiveness or the respondent's preferences towards a specific country. Considering specific factors (such as salaries, career and education opportunities, weather, family location, etc.) we asked the respondents on scale of 1 to 5 to which country they were attracted to: Suriname or the Netherlands². We calculated the mean per factor for the current migrants, remigrants and non-migrants. Next we scaled down the mean values with minus 3 and thus the range of the values became -2 to +2, where the negative values indicate that the respondents prefer Suriname and positive values the Netherlands. Figure 1 presents the pull factors towards Suriname and Figure 2 the push factors from Suriname, and a detailed discussion of these figures appears in Section 4.2 below. For the regressions we used the original values of 1 to 5. Higher values indicate that the respondent is drawn to the Netherlands and lower values towards Suriname. We thus expect a negative effect of country attractiveness on return migration. Following Gibson & McKenzie (2011) we consider factors which are differently viewed by the migrants, return migrants and non-migrants in the regressions. These are: career perspectives, the work possibilities for the partner, job availability, job contentment, cost of living, safety, place of upbringing of the children, job opportunities partner, place where the family of the partner lives.

We include some background characteristics as control variables in the regressions. These are: gender, age and citizenship or migration status (ever migrated or not). Following (Wang and Fan, 2006) we expect women to be more likely to return to the home country, because of the social responsibilities and cultural ties they have at home. Obviously, former top students who hold the Dutch citizenship must be less likely to return as they must have been settled abroad. Out of 111 Dutch citizenship holders, 80% are current migrants and 20% are remigrants.

Table 1 presents the description and main statistics of the various variables we used in the regressions, and we discuss various interesting numbers below.

3.3 Models

In this subsection we will discuss the models to estimate return migration or the intention (chance) to live in Suriname in the future. Using the binary logit model (Greene, 2002), we regress return migration on a set of indicators for education, lifecycle and migration duration, social attachments, country preferences and some background characteristics. Here we do not consider the job tasks, as

² The values and respective labels were: 1=strongly drawn towards Suriname, 2=drawn towards Suriname, 3=this does not matter for me, 4=drawn towards the Netherlands and 5=strongly drawn towards the Netherlands.

respondents might have gotten into employment after they returned from the Netherlands. The first econometric model is:

$$P(Y_i = 1 | X_i' \beta) = \frac{e^{X_i' \beta}}{(1 + e^{X_i' \beta})} \quad (1)$$

where i is an index for individual who is a current migrant or a remigrant, and X_i represents a vector of indicators for education, life-earnings cycle and migration duration, social attachments, country preferences and some background characteristics.

We now turn to the model to estimate the chance to live in Suriname in the future (within 1 year, 10 years and after retirement). Current migrants who express the chance to go to Suriname in the future indicate their intention to return the home country. Remigrants and non-migrants express the chance (intention) to keep on living in Suriname in the future. Research has shown that (Klaver et al., 2010) that the desire or intention to move to the home country does not imply yet that the migrant will truly return. However we believe that the chance to return within a year is an expectation that is in the near future and that it is very close to realization. When analysing the results we see that most of the regression coefficients remain significant across all three time frames that the different dependent variables represent. Furthermore the range of variation for the dependent variables, measuring the chance or intention to live in Suriname, in our study is larger than in most studies, giving the respondent the possibility to make a conscious choice when answering the question on the chance to live in Suriname.

Table 2 shows that the dependent variables contain many zero's (0%) and one's (100%). Hence we use the censored regression (Tobit) to model the intention to live in Suriname with both left and right censoring (Greene, 2002)³.

$$Y_i^* = X_i' \beta + \varepsilon_i, \quad (2)$$

$$Y_i = \begin{cases} 0 & \text{if } Y_i^* \leq 0 \\ 0 < Y_i^* < 1 \\ 1 & \text{if } Y_i^* \geq 1 \end{cases}$$

X_i' now also includes indicators for job tasks. These job characteristics tell us something about the respondent in present time, while the intention to live in Suriname tells us something about the future.

³ Truncated regression would be more appropriate but because of a relatively small sample size we choose censored (Tobit) regression.

Table 3 presents the determinants of the binary variable: return migration. Table 4-7 respectively present the effect of family location, migration duration and education funding, educational level and job tasks, and country attractiveness on the intention to live in Suriname.

4. Results

4.1 Descriptives

Out of the 283 surveyed former top students, 55% is female and 45% male (Table 1). With the exception of one person, all respondents enjoyed tertiary education, which is why we also refer to the respondents as highly educated or highly skilled workers. At least half of respondents obtained their first tertiary education in the Netherlands and 60% of the 136 respondents, who enjoyed a second tertiary education, obtained this in the Netherlands. Figure 3 displays the occupation field in which the highly educated work. Doctors, engineers, and accountants or business managers are among the most common professions we observed among the highly educated. The majority of the respondents have a spouse or partner, of which almost half has the Dutch citizenship. 60% of the former top students has ever migrated to the Netherlands (for at least one year), of which 33% returned to Suriname.

While former top students currently living in the Netherlands (current migrants) are not very likely to return to Suriname within one year, they are willing to do so on a medium and long term (see Table 2). We asked the former top students what the chance was they would live in Suriname within 1 year, 10 years and after retirement. Respondents could answer within a range of 0% and 100% (with 21 intervals and each interval 5 percentage point width). 28% of the current migrants considered returning to Suriname within one year. With some probability, 74% of the current migrants intend to do so within 10 years and 91% have some intention to return after retirement. On the other hand the remigrants and non-migrants do not intend to live in Suriname all their lives. 30% of the non-migrants indicated that the chance that they would live in Suriname the next 10 years was less than 50%.

4.2 Push and pull factors

In Figure 1 and Figure 2 we present the push and pull factors, respectively. The main pull factors are: the weather conditions in Suriname, experiencing the culture, the tax system of Suriname, house- and landownership, the fulfilment of social obligations, the place where most of the family lives (see Figure 1). Current migrants are to lesser extent than remigrants and non-migrants attracted to these pull factors towards Suriname. Remigrants are especially attracted to the lifestyle of Suriname (as also noted in Dulam & Franses 2014) and the fulfillment of social obligations in Suriname. Return

migrants especially feel to be of more importance in Suriname as they feel the opportunity to make a difference in their society (more so than in the Netherlands).

Highly educated Surinamese feel attracted towards the Netherlands when taking into account the salaries, education possibilities, the quality of healthcare and ICT, travelling costs and confidence in the government (see Figure 2). When considering the work related factors (such as career perspectives, work contentment and the cost of living) current migrants prefer the Netherlands, while remigrants and non-migrants to a lesser extent prefer Suriname. Furthermore current migrants prefer the Netherlands as the place of upbringing their children, while remigrants and non-migrants prefer Suriname. However, when bearing the children's education in mind, like the current migrants the remigrants and non-migrants also prefer the Netherlands.

4.3 Determinants return migration

In this section we discuss the estimates of equation 1. Using the logit regression functionality of SPSS we regressed remigration on a set of indicators for education, lifecycle and migration duration, social attachments, country preferences and some background characteristics. The results are in Table 3.

Having the Dutch citizenship significantly reduces the probability to return to Suriname. The odds⁴ to return is around 90% lower for former top students who have the Dutch citizenship than those who have the Surinamese citizenship, given that other factors remain constant. Also those who have a life partner holding the Dutch citizenship are significantly less likely to return than those whose partner has the Surinamese citizenship (column 1). It seems that women are more likely to return to Suriname. Social and cultural ties may be the reason for this (Wang & Fan, 2003). In an open ended question we asked the respondents what the main reason of their return decision was. A couple of women wrote that they returned because their partner returned. Note that the column 1 only includes respondents who have a life partner.

Former top students whose parents obtained tertiary education abroad are more likely to return to Suriname. As explained in Dulam & Franses (2014), higher education was not available in Suriname at the time when most of the parents were of the age of entering higher education. Between the 1950's and 1970's many Surinamese received scholarships to go abroad to study. Most of the parents who received scholarships returned to Suriname (Klaver et al., 2010), which is why we think that the children followed the footsteps of the parents, namely to attain tertiary education abroad and return thereafter.

Return migration is the least likely for the youngest age-group (24-30 years), indicating that high educated individuals of Surinamese origin in that age may not yet have completed their optimal

⁴ Conform Field (2009, p. 288) we calculate the odds ratio as follows: $[\text{Exp}(\text{estimated coefficient}) * 100] - 100$

life-earnings cycle and thus are more likely to remain in the Netherlands. The oldest age group (40-59 years), the reference group, is significantly more likely to return with respect to the youngest age-group.

Column 2 includes the effect of the funding method of tertiary education. The former top students' higher education was funded by: 1) mainly through a scholarship, 2) mainly by the parents, 3) mainly by the respondent's themselves or by a studyloan. Former top students whose tertiary education was funded through scholarships (from the government or from universities) are significantly more likely to return to Suriname with respect to former top students who funded their education by their own means or via a studyloan, given that other factors were constant. The coefficient is significant at the 10% level.

There was a strong correlation (Chi-square test) between the reference variable *Fund_self* (education costs funded by the former top student self or by studyloan) and *Nation* and there were only 3 Surinamese citizenship holders who financed their education by themselves. And thus we replaced *Nation* with *YearsinNL* as the migration duration positively affects the attainment of the Dutch citizenship. The coefficient for migration duration (*YearsinNL*) is significant at the 1% level. The shorter the migration duration, the higher is the probability to return to the home country. The odds to return decreases with 37% for every one year extra that the high skilled Surinamese stays in the Netherlands, given that the other factors remain constant.

In column 3 we include the number of years that the former top students enjoyed tertiary education in the Netherlands (*Yearseduc_nl*) and some background characteristics. Return migration seems to be negatively selected on the number of years of education in the Netherlands. For every one year extra education in the Netherlands the odds to return decreases by 15 percent. We also see that return migration is negatively associated with the educational level of the partner (column 1). These results seem to support the selectivity theory of Borjas, which states that the worst of the best return. Less educated might imply less chances to be successful in the developed country and thus likelihood of return migration increases. However, we found no significant difference in the total number of years of tertiary education (notwithstanding where the education was attained) between remigrants and current migrants. The remigrants' main reason to go abroad was educational attainment and return thereafter implying that they are not necessarily failure migrants. 50 out of the 54 remigrants (93 percent) mentioned studying in the Netherlands as the main reason to move there. In column 4 we regressed the academic degree (using four dummies *PhD*, *Msc_tech*, *Msc_medic*, and *Msc_social* and the reference group: *Bsc_HBO_Other*; see Table 2 for the description) on return migration but found no significant effects.

Narrowing the economic gap (*GDPdiff*) between Suriname and the Netherlands at the age⁵ of initial migration to the Netherlands may have left an impression on the former top students (Dulam & Franses (2014)). However this effect was not significant. Business seems to attract return migrants. The coefficient is positive and in column 3 significant at the 10% significance level. Former top students whose parents run a business in Suriname are more likely to return to Suriname, a sign of attachment to the home country.

Column 5 includes some country attractiveness indicators (push and pull factors). Safety, the fulfillment of social obligations and job contentment are significant determinants of return migration. Former top students who believe the Netherlands to be safer than Suriname are less likely to return. Fulfilling social obligations towards parents or the society attracts return migrants. Also, former top students who believe to be more content with their job in Suriname than they were or would be in the Netherlands were more likely to return to Suriname. We also included salaries and the tax rate in the regressions. However these turned out to be insignificant and were left out of the final regressions.

4.4 Determinants the intention to return or live in Suriname in the future

In this subsection we present the estimation results of equation 2. Tables 4-7 contain the censored regression effects on the chance⁶ to live in Suriname in the future (within 1 year, 10 years and after retirement). Using the “censReg” package of R-software, we calculated the marginal effect and present these in the tables.

Table 4 displays in particular the influence of close relatives in migration behavior. The intention (chance) to return to or to live in Suriname is strongly associated with the location of close relatives.

Current migrants who have children are significantly less likely to live in Suriname in the future. For example when evaluating the effect on the intention to live in Suriname within 10 years (columns 2 and 5) we see that the chances for current migrants who have children are 38-48% lower than remigrants and nonmigrants who do not have children, given that the other variables remain constant. Remigrants and nonmigrants who have no children are more mobile than those who have children. Furthermore we see that former top students whose parents live in Suriname exhibit higher chances to live in Suriname with respect to those whose parents live in the Netherlands. And when the life partner of the former top student has the Surinamese citizenship the chance to live in Suriname in

⁵ That is at the age of 18 when most of the students finish high school and are posed to the dilemma where and how to continue education. We see that migration is most likely at this age. As many students choose to go abroad (the Netherlands) for tertiary education.

⁶ We asked the respondents what the chance was they would return or live in Suriname. The meaning of “chance” here is not the same as “probability”. Chance is defined as the possibility of it happening in the (near) future or at the moment when you have the opportunity to do so. The term probability is the statistically computed likelihood that it will occur.

the future is higher than when the lifepartner has the Dutch citizenship. This is consistent with the result in Table 3. We also confirm that former top students who have the Dutch citizenship are less likely to opt for Suriname in the future.

Table 5 includes the age effects and the effect of the funding method of higher education. Even though the younger respondents are significantly less likely to return to Suriname, but when it comes to intention, the younger Surinamese are more eager to live in Suriname in the future. Former top students who are between 31 and 39 years old have a significantly higher intention to live in Suriname than those who are between 40 and 59 years old. This indicates that relatively young former top students are interested in Suriname. Former top students in the age category of 24-30 years intend to return to Suriname within 10 years and after retirement, but no significant effect was found on the return intention within 1 year. To reduce the number of regressors in the subsequent regressions we used the continuous indicator for age instead of the categorical variables (the dummies). The continuous variable *Age* is not significant. We also squared this variable and analysed its effect. No significant effect of the squared *Age* was found and thus we dropped this from the regressions.

An important implication from Table 5 is the positive effect of scholarships on the return intention. The chance to live in Suriname within one year is 33 percentage points higher for former top students who received a scholarship to complete tertiary education compared with those who financed their tertiary education by themselves or through a loan. This effect weakens over time, implying that former top students who received a scholarship might move abroad within 10 years or after retirement. Also former top students whose education was mainly financed by the parents exhibit higher chances to live in Suriname in the future. Even though the effect is only significant in the second column, the results confirm the essence of social bonding for return migration.

The chance to live in Suriname in the future is significantly lower for former top students who have ever migrated to the Netherlands (current migrants and remigrants) than those did not migrate. This effect weakens over time, implying that the chance to live in Suriname in the middle or long term increases for migrants in particular.

Columns 4-6 in Table 5 contain the effect of the migration duration on the intention to live in Suriname in the future. The shorter the migration duration, the higher the chance to live in Suriname. This supports the result of Table 3. Former top students who lived between 1 and 5 years in the Netherlands have the highest chance to live in Suriname in the future. The effect on the intention to live in Suriname within 10 years for individuals with a migration duration of between 11 and 10 years in the Netherlands, is 30-40 percentage points lower than the stay duration of between 1 and 5 years.

Table 6 presents the effect of the educational level on the intention to live in Suriname. In the short en medium term there is no significant effect. However when considering the effect on the intention to live in Suriname after retirement we observe negative effects of educational attainment.

PhD degree holders are the least likely to live in Suriname after retirement. The chance to live in Suriname is 18 percentage points lower for PhD degree holders than for Bsc. or vocational degree holders, given that the other variables remain constant. Msc degree holders in a technical or social science also exhibit significant lower chances to live in Suriname in the future. The coefficient for medical master's degree holders is insignificant throughout all three columns. We also regressed the years of education in the Netherlands on the respective dependent variables. The coefficient was negative and significant as was earlier the case in Table 3.

Columns 4-6 of Table 6 display the marginal effects of job tasks. The first thing to notice here is that when holding the nationality, age and job tasks constant, gender becomes significant. Women have a higher probability to live in Suriname in the future. This is consistent with the results found in Table 3 and with existing literature (Wang & Fan, 2003 and de Jong, 2000).

When forecasting the intention to return or to live in Suriname in the future, we see that former top students who perform management tasks, and who are in touch with clients exhibit higher chances to live in Suriname than those who do not demonstrate these tasks at work. Note that while individuals who are in touch with clients are more likely to live in Suriname in the future, those who are in touch with suppliers are less likely to live in Suriname within 10 years. Former top students who are not involved in work that requires contact with suppliers may be doing less complicated work; work that may be dispensable in a small economy as Suriname.

Table 7 contains some country attractiveness indicators. All these indicators have negative coefficients in the table, implying that preferences towards the Netherlands reduce the chances to live in Suriname in the future. Former top students who prefer the Netherlands when considering the place of upbringing of their (future) children and the education opportunities for their children have lower chances to live in Suriname in the future. These effects weaken when considering the intention to live in Suriname after retirement, but remain significant.

Another important preference indicator is job contentment. Former top students who feel that they are more content with their job in the Netherlands than they would be in Suriname have lower chances to return or to live in Suriname in the future. Also when considering the career opportunities the effect on the intention to live in Suriname in one year or 10 years time is negative. Former top students who prefer the career opportunities in the Netherlands rather than Suriname are less likely to live in Suriname in the future. The effect fades away when considering to live in Suriname after retirement.

Safety is only important when considering the effect on 1 year ahead of time. The same applies for social obligations towards the community. Notice that preferences for a country when considering the salaries are not a strong determinant of the intention to live in Suriname. The coefficient for this

variable is only significant in the second column. We observe in Figure 2 however that the majority of the respondents prefer the Netherlands when it comes to the level of salaries.

Columns 4-6 of Table 7 include preferences regarding the lifepartner and the education opportunities of the children. The partner's job opportunities in a certain country and the place where the partner's family lives also determine the intention to live in Suriname. If the opportunities are believed to be better in Suriname (but this might be the case simply because the partner lives in Suriname), the effect is positive. And if the partner's family lives in Suriname, the intention to live in Suriname also increases.

Conclusion and implications

The purpose of this study was to identify the determinants of return migration of high skilled Surinamese individuals. We surveyed 283 former top students of Suriname, who now either live in the Netherlands or in Suriname. The focus of this paper was the effect of educational attainment, job tasks, the optimal life-earnings cycle, migration duration, citizenship, close relatives, education funding method and push and pull factors on the return migration decision or the intention to live in Suriname in the future. Four indicators to measure the response variable, that is, return migration, were used, and these are return migration as a binary variable, the chance to live in Suriname within 1 year, 10 years and after retirement.

This study shows that return migration is negatively correlated with educational attainment, in terms of the years of education and the educational level of the respondent's life partner. There is thus some support for Borjas and Bratsberg's theory that return migration tends to amplify the initial migration flow, namely that the best of the best emigrate and the worst of the best return. However the evidence does not strongly support the theory, as we did not find significant effects of the academic degree on return migration. The academic degree seems to have a negative effect on the chance to live in Suriname after retirement, that is, MSc degree holders in technical and social sciences and PhD degree holders are significantly less likely than Bsc. or vocational degree holders to live in Suriname after their retirement.

An interesting result was the effect of the education funding method. Scholarships seem to positively affect return migration and the intention to live in Suriname in the future. Also former top students whose education was funded mainly by the parents have more the intention to live in Suriname than former top students who financed their education by their own means or by studyloan.

When evaluating the effect of the job tasks, we found that former top students involved in management tasks at work and in work that requires at least some contact with clients had a higher chance to live in Suriname in the future. We did not find any significant effect of job tasks involving

more complicated tasks such as mathematical problem solving at work or former top students who are in touch with patients with regard to their work.

We found some evidence of the optimal life-earnings cycles as former top students of between 40-59 years of age were more likely to return than the youngest age group (24-30 years), indicating that the former top students return after completion of tertiary education, work experience or accumulation of savings. When looking at the future, we found that former top students from the youngest and middle age groups do have the intention to live in Suriname in the future. The obvious question arises: they do want to live there, but will they really? Former top students from the oldest age group on the other hand are the least likely to choose for Suriname in the future. This seems contradictory to the previous statement about this age group. But the reason is that the majority of the former top students who currently live in Suriname have some intention to live abroad after retirement, while the current migrants intend to go to Suriname after retirement.

With respect to the push and pull factors, we learned that safety, job contentment and social obligations significantly affect return migration. Those who believe that the Netherlands is better for the future of their children were less likely to choose for Suriname. Surinamese tend to choose the country where their close relatives live. Former top students whose parents, life partner and children live in Suriname are more likely to live in same country. Former top students who hold the Dutch citizenship were less likely to return to Suriname.

Although many former top students went to the Netherlands to pursue higher education, the majority did not return after completing education. Suriname risks of losing the highly skilled individuals to a country which is highly developed and offers more perspectives to them. The young high skilled are interested in Suriname, but they do not intend return on the short run. The return decision is mainly driven by social attachments and job related factors. Radical changes (such as technological advancement and positive work attitudes) to create attractive work environments in Suriname is needed, but not feasible in the near future. Government policy should focus on housing, safety and the inclusion of the facilitation of the household members of the highly educated. Policies to attract the high skilled back to Suriname should also focus on diversification. Former top students working in the health sector and academic sector are indifferent to the choice between the two countries, while there is much need for the highly skilled workers in those sectors of Suriname.

Furthermore, as scholarships are a proven to be a success, the government and relevant institutions should focus on providing scholarships to bright students in a more systematic way (see also Dulam & Franses 2014). Moreover the Netherlands could play an important role in providing education in Suriname itself.

Figure 1 Pull factors

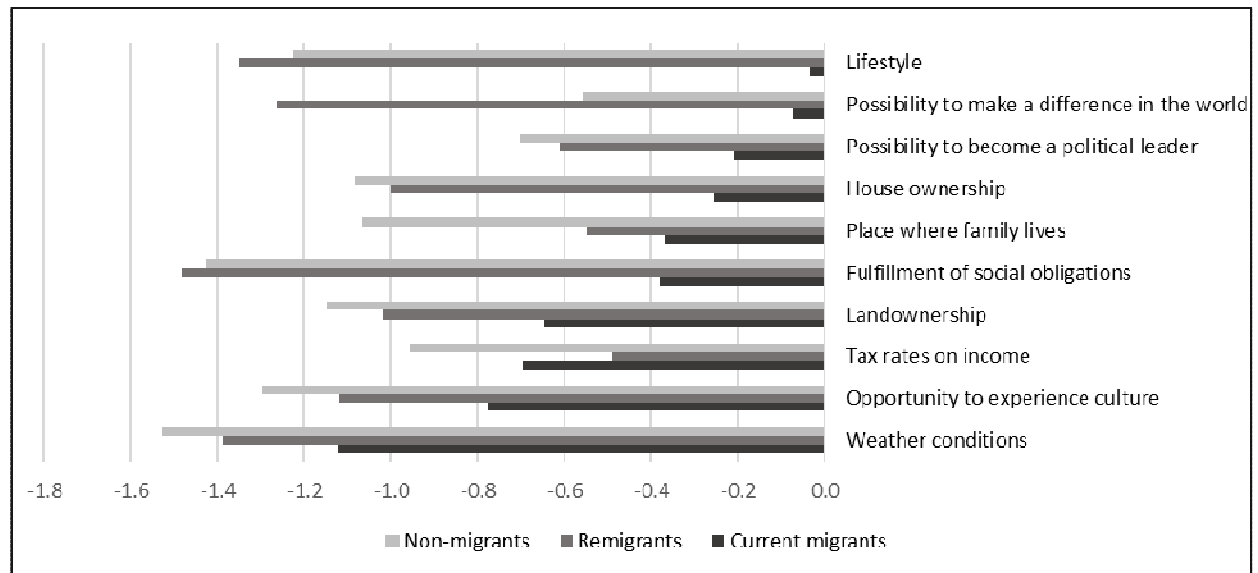


Figure 2 Push factors

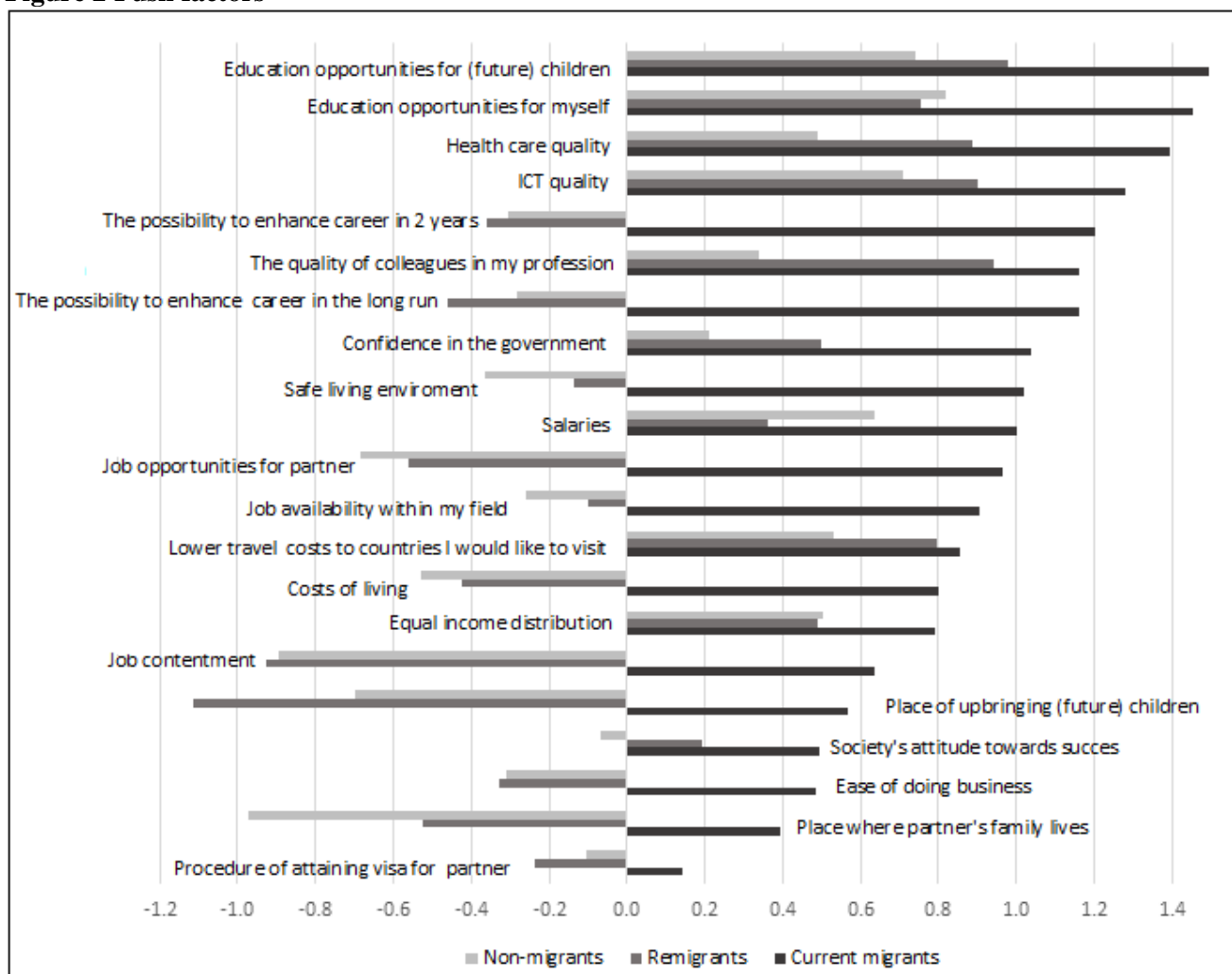
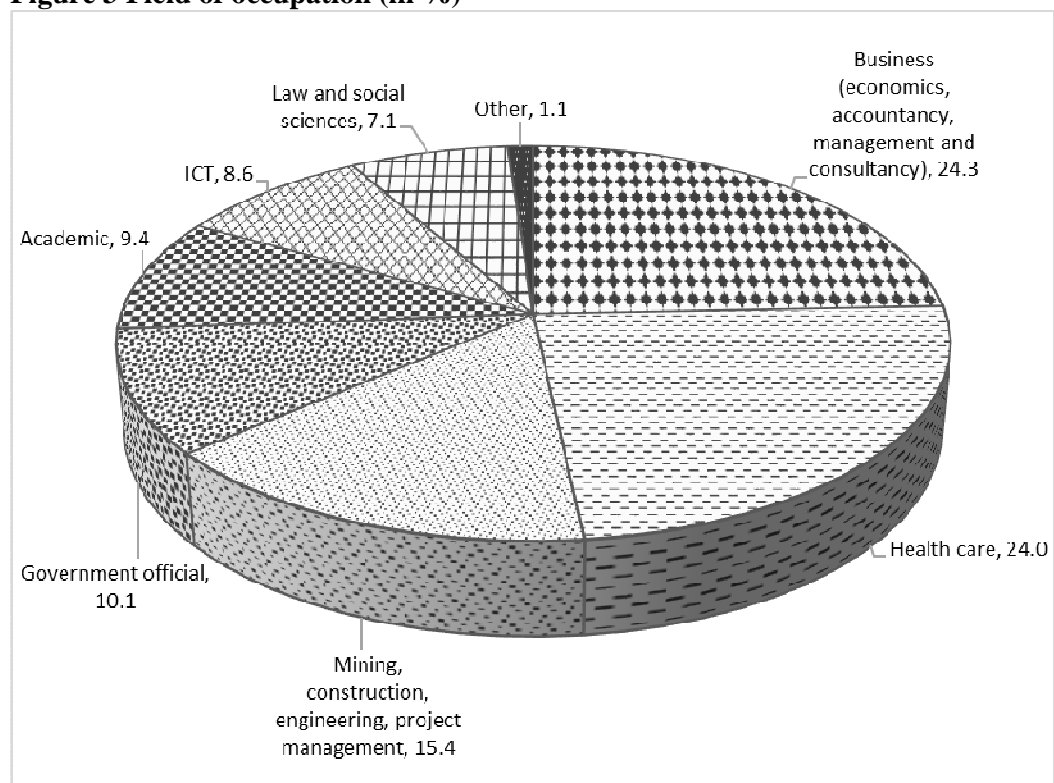


Figure 3 Field of occupation (in %)



N=267

Table 1 Descriptives main variables

Variables	Label	Mean		N
Gender	equals 1 if respondent is female and 0 otherwise	0.553	(0.498)	282
Age_24_30	equals 1 if respondent is between 24 and 30 years and 0 otherwise	0.382	(0.487)	283
Age_31_39	equals 1 if respondent is between 31 and 39 years and 0 otherwise	0.307	(0.462)	283
Age_40_59	equals 1 if respondent is between 40 and 59 years and 0 otherwise	0.311	(0.464)	283
Nation	equals 1 if respondent has Dutch citizenship and 0 if Surinamese	0.434	(0.497)	265
Nation_partnr	equals 1 if respondent's partner has Dutch citizenship and 0 if Surinamese	0.494	(0.501)	178
Migration_ever	equals 1 if respondent has ever migrated to the Netherlands and 0 if not	0.624	(0.485)	274
Remigration	equals 1 if respondent has remigrated from the Netherlands to Suriname and 0 if not.	0.208	(0.407)	274
Parent_nl	equals 1 if at least one of the parents live in the Netherlands and 0 if not	0.182	(0.387)	280
Parent_un	equals 1 if the respondent's parent is no longer alive or if the location is unknown and 0 otherwise	0.193	(0.395)	280
Parenttertiary	equals 1 if at least one of the parents had tertiary education abroad and 0 if not	0.319	(0.467)	270
Business	equas 1 if the parents had/have a business in Suriname and 0 if not	0.388	(0.488)	278
Child_cm	equals 1 if the respondent is a current migrant with children and 0 if not	0.193	(0.396)	274
Child_rm_nm	equals 1 if the respondent is a remigrant or nonmigrant with children and 0 if not	0.234	(0.424)	274
Nochild_cm	equals 1 if the respondent is a current migrant with no children and 0 otherwise	0.223	(0.417)	274
Fund_scholarsh	equals 1 if the tertiary education was funded via a scholarship and 0 otherwise	0.11	(0.314)	245
Fund_parnt	equals 1 if the tertiary education was mainly funded by the parents and 0 otherwise	0.682	(0.467)	245
Fund_self	equals 1 if the tertiary education was funded by the respondent or via a loan and 0 otherwise	0.208	(0.407)	245
Years0_nl	equals 1 if the respondent spent 0 years in the Netherlands and 0 otherwise	0.375	(0.485)	267
Years1_5_nl	equals 1 if the respondent spent between 1 and 5 years in the Netherlands and 0 if not	0.131	(0.338)	267
Years6_10_nl	equals 1 if the respondent spent between 6 and 10 years in the Netherlands and 0 if not	0.161	(0.368)	267
Years11_20_nl	equals 1 if the respondent spent between 11 and 20 years in the Netherlands and 0 if not	0.131	(0.338)	267
Yearseduc_nl	the duration of tertiary education in the Netherlands in years	4.511	(4.231)	266
Educ_partnr	The highest educational level of the life partner where 1 stands for primary school, 2 for secondary school, 3 for high school, 4 a Bachelors degree, 5 a Masters degree and 6 a PhD degree	4.050	(1.048)	178
PhD	equals 1 if the respondent's highest degree is a PhD and 0 otherwise	0.068	(0.252)	266
Msc_tech	equals 1 if the respondent's highest degree is a Msc in technical science and 0 otherwise	0.214	(0.411)	266
Msc_medic	equals 1 if the respondent's highest degree is a Msc in medical science and 0 otherwise	0.199	(0.400)	266
Msc_social	equals 1 if the respondent's highest degree is a Msc in social science and 0 otherwise	0.218	(0.414)	266
Physical_task	equals 1 is the respondent performs physical tasks at work and 0 if not	0.269	(0.444)	249
Shortrep_task	equals 1 is the respondent performs short repetitive tasks at work and 0 if not	0.389	(0.488)	247
Manage_task	equals 1 is the respondent performs management tasks at work and 0 if not	0.703	(0.458)	269
Contact_student	equals 1 if the respondent has at least some contact with students for his work and 0 if not	0.804	(0.398)	240
Contact_patient	equals 1 if the respondent has at least some contact with patients for his work and 0 if not	0.316	(0.466)	234
Contact_client	equals 1 if the respondent has at least some contact with clients for his work and 0 if not	0.884	(0.321)	241
Contact_supplier	equals 1 if the respondent has at least some contact with suppliers for his work and 0 if not	0.740	(0.439)	235
Math_solving	equals 1 if the respondent has to perform mathematical problem solving tasks at work and 0 if not	0.266	(0.443)	244
Intend_1yr	The chance that the respondent thinks to live in Suriname within 1 year	0.546	(0.455)	260
Intend_10yrs	The chance that the respondent thinks to live in Suriname within 10 years	0.574	(0.375)	259
Intend_retire	The chance that the respondent thinks to live in Suriname after retirement	0.685	(0.331)	249

Note: Standard errors are in parentheses. N is the number of observations.

Table 2 Chance to live in Suriname in the future

	Categories	Current migrants	Remigrants	Non migrants	Total
Chance	0%	71.8%	0.0%	2.0%	31.2%
(intention) to	5-50%	26.4%	3.8%	10.2%	15.8%
live in	55-95%	0.9%	17.3%	22.4%	12.3%
Suriname	100%	0.9%	78.8%	65.3%	40.8%
within 1 year	N	110	52	98	260
Chance to live	0%	25.7%	1.9%	2.1%	12.0%
in Suriname	5-50%	56.9%	9.4%	27.8%	36.3%
within 10	55-95%	14.7%	37.7%	43.3%	30.1%
years	100%	2.8%	50.9%	26.8%	21.6%
	N	109	53	97	259
Chance to live	0%	8.7%	0.0%	0.0%	3.6%
in Suriname	5-50%	57.3%	16.7%	8.7%	30.5%
after	55-95%	28.2%	44.4%	44.6%	37.8%
retirement	100%	5.8%	38.9%	46.7%	28.1%
	N	103	54	92	249

Table 3 Determinants of the binary variable return migration

Variable	(1) Coefficient	(2) Coefficient	(3) Coefficient	(4) Coefficient	(5) Coefficient
Gender	1.462** (0.710)	0.630 (0.655)	0.655 (0.429)	0.778* (0.429)	0.909 (0.683)
Age_24_30	-3.298*** (1.353)	-5.023*** (1.328)	-1.502** (0.713)	-1.388** (0.626)	-3.185*** (1.173)
Age_31_39	0.329 (0.717)	-1.078 (0.990)	0.511 (0.510)	0.458 (0.514)	-0.199 (0.804)
Parenttertiary	-0.007 (0.713)	2.331*** (0.841)	0.870** (0.441)	0.919** (0.424)	1.207* (0.699)
Nation	-2.684** (1.145)		-2.080*** (0.517)	-2.156*** (0.520)	-2.803*** (0.833)
Educ_partnr	-0.819** (0.369)				
Nation_partnr	-2.926*** (0.926)				
YearsinNL		-0.466*** (0.088)			
Fund_scholarsh		2.059* (1.190)			
Fund_parent		-0.464 (0.750)			
GDPdiff			-0.047 (0.052)		
Business	0.710 (0.666)		0.792* (0.449)		
Yearseduc_nl			-0.158** (0.072)		
PhD				0.767 (0.875)	
Msc_tech				0.248 (0.684)	
Msc_medic				0.197 (0.720)	
Msc_social				-0.707 (0.753)	
Safety					-1.173*** (0.401)
Social_obligations					-0.953*** (0.343)
Jobcontentment					-1.248*** (0.343)
Intercept	6.703*** (2.316)	5.490*** (1.582)	0.741 (0.736)	0.238 (0.805)	10.422*** (2.293)
Chi-square	54.819***	122.662***	51.168***	47.301***	109.980***
Nagekerke R ²	0.605	0.786	0.400	0.367	0.753
N	94	148	151	155	142

Notes: ***, **, * imply that the coefficient is significant respectively at 1%, 5% and 10% significance level. Standard errors are in parentheses. N is the number of observations. *Age_40_59* (age between 40 and 59 years) is the reference group for the age dummies. *Gender* equals 1 if the respondent is a female and 0 if male. *Fund_scholarsh* and *Fund_parent* are with respect to *Fund_self*, which indicates that the education was mainly funded by the respondent or by studyloan. The odds ratios are obtained by exponentiating the coefficients.

Table 4 Close relatives

	(1)	(2)	(3)	(4)	(5)	(6)
	in 1 year	in 10 years	after retiring	in 1 year	in 10 years	after retiring
Variable	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
Gender	0.006 (0.055)	-0.037 (0.042)	0.041 (0.035)	0.003 (0.070)	-0.042 (0.054)	-0.008 (0.041)
Nation	-0.062 (0.078)	-0.125** (0.059)	-0.134*** (0.051)	-0.043 (0.104)	-0.072 (0.078)	-0.104* (0.061)
Age_24_30	-0.063 (0.087)	-0.096 (0.067)	0.016 (0.055)	-0.072 (0.106)	-0.143* (0.082)	0.001 (0.063)
Age_31_39	0.080 (0.078)	0.028 (0.060)	-0.011 (0.052)	0.082 (0.096)	0.035 (0.073)	-0.001 (0.056)
Child_cm	-1.053*** (0.118)	-0.475*** (0.087)	-0.241*** (0.075)	-1.055*** (0.149)	-0.378*** (0.113)	-0.273*** (0.096)
Nochild_cm	-0.928*** (0.081)	-0.291*** (0.066)	-0.229*** (0.061)	-1.042*** (0.143)	-0.199* (0.103)	-0.233*** (0.085)
Child_rmnm	0.150* (0.079)	0.126** (0.059)	0.097* (0.049)	0.099 (0.096)	0.087 (0.075)	-0.019 (0.061)
Parent_nl	-0.098 (0.081)	-0.103* (0.060)	-0.185*** (0.054)	-0.001 (0.096)	-0.085 (0.073)	-0.166*** (0.059)
Parent_un	0.001 (0.077)	-0.101* (0.059)	-0.039 (0.050)	0.082 (0.095)	-0.066 (0.073)	-0.006 (0.055)
Nation_partnr				-0.061 (0.115)	-0.223*** (0.084)	-0.113* (0.065)
# observations	245	244	233	162	162	160
# uncensored	68	162	164	42	106	113

Notes: ***, **, * imply that the coefficient is significant respectively at 1%, 5% and 10% significance level. Standard errors are in parentheses. *Age_40_59* (age between 40 and 59 years) is the reference group for the age dummies. The dummies indicating the migration status and whether or not the respondent has children are with respect to being a remigrant or nonmigrant with no children. *Parent_nl* and *Parent_un* are with respect to *Parent_sme*, indicating that the parents live in Suriname.

Table 5 Migration duration and education funding

	(1) in 1 year	(2) in 10 years	(3) after retiring	(4) in 1 year	(5) in 10 years	(6) after retiring
	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
Gender	0.058 (0.059)	0.024 (0.046)	0.056 (0.039)	0.065 (0.059)	0.017 (0.043)	0.058 (0.037)
Nation				-0.152 (0.094)	-0.202*** (0.072)	-0.124* (0.064)
Migration_ever	-0.483*** (0.077)	-0.155*** (0.054)	-0.277*** (0.060)			
Age_24_30	0.041 (0.079)	0.118* (0.060)	0.129*** (0.049)			
Age_31_39	0.243*** (0.078)	0.243*** (0.060)	0.165*** (0.048)			
Age				0.023 (0.103)	0.015 (0.061)	0.009 (0.077)
Years0_NL				1.039*** (0.104)	0.519*** (0.078)	0.553*** (0.053)
Years1_5_NL				0.969*** (0.123)	0.724*** (0.089)	0.466*** (0.069)
Years6_10_NL				0.603*** (0.104)	0.473*** (0.079)	0.379*** (0.060)
Years11_20_NL				0.218** (0.108)	0.195** (0.076)	0.235*** (0.059)
Fund_scholarsh	0.327*** (0.110)	0.257*** (0.085)	0.200*** (0.071)			
Fund_parent	0.160 (0.075)	0.178*** (0.059)	0.052 (0.049)			
# observations	237	236	227	246	245	231
# uncensored	65	155	152	69	163	161

Notes: ***, **, * imply that the coefficient is significant respectively at 1%, 5% and 10% significance level. Standard errors are in parentheses. Age_40_59 (age between 40 and 59 years) is the reference group for the age dummies. *Fund_scholarsh* and *Fund_parent* are with respect to *Fund_self*, which indicates that the education was mainly funded by the respondent or by studyloan. Migration duration of longer than 21 years (*Years21_nl*) is the referencegroup for the dummies measuring the migration duration (*Years0_nl*, *Years1_5_nl*, etc.).

Table 6 Education selectivity

	(1) in 1 year Coefficient	(2) in 10 years Coefficient	(3) after retiring Coefficient	(4) in 1 year Coefficient	(5) in 10 years Coefficient	(6) after retiring Coefficient
Gender	0.127** (0.062)	0.022 (0.047)	0.066 (0.040)	0.169** (0.065)	0.051 (0.048)	0.101** (0.040)
Nation	-0.613*** (0.080)	-0.438*** (0.060)	-0.343*** (0.066)	-0.605*** (0.089)	-0.421*** (0.064)	-0.328*** (0.062)
Age	0.009 (0.036)	0.004 (0.018)	0.002 (0.023)	0.004 (0.017)	0.005 (0.016)	0.000 (0.002)
PhD	-0.101 (0.137)	0.011 (0.102)	-0.184** (0.086)			
Msc_tech	0.007 (0.084)	0.067 (0.063)	-0.099* (0.058)			
Msc_medic	-0.045 (0.091)	0.089 (0.067)	-0.018 (0.059)			
Msc_social	-0.134 (0.088)	-0.009 (0.068)	-0.136** (0.063)			
Physical_task				0.114 (0.089)	0.120* (0.065)	0.063 (0.053)
Shortrep_task				0.054 (0.075)	0.080 (0.055)	0.042 (0.045)
Manage_task				0.140* (0.078)	0.121** (0.058)	0.114** (0.049)
Contact_student				0.053 (0.089)	0.070 (0.064)	0.030 (0.054)
Contact_patient				-0.049 (0.075)	-0.058 (0.057)	-0.033 (0.048)
Contact_client				0.187* (0.107)	0.163** (0.078)	0.141** (0.167)
Contact_supplier				0.021 (0.803)	-0.115* (0.063)	-0.058 (0.052)
Math_solving				-0.027 (0.077)	-0.002 (0.057)	0.011 (0.048)
# observations	238	237	226	207	207	211
# uncensored	66	156	160	59	135	147

Notes: ***, **, * imply that the coefficient is significant respectively at 1%, 5% and 10% significance level. Standard errors are in parentheses. The academic degrees are with respect to *Bsc_HBO_Other*, indicating respondents who have a Bachelor, or vocational degree or another kind of tertiary education instead of a Msc university or PhD degree.

Table 7 Country attractiveness

	(1)	(2)	(3)	(4)	(5)	(6)
	in 1 year	in 10 years	after retiring	in 1 year	in 10 years	after retiring
Variable	Coefficient t	Coefficient	Coefficient	Coefficient	Coefficient	Coefficient
Gender	0.091 (0.066)	0.017 (0.045)	0.044 (0.036)	0.126* (0.071)	-0.005 (0.049)	0.048 (0.039)
Nation	-0.450*** (0.087)	-0.250*** (0.057)	-0.155*** (0.051)	-0.437*** (0.106)	-0.246*** (0.067)	-0.200*** (0.063)
Age	0.007 (0.024)	0.003 (0.011)	0.001 (0.006)	0.008 (0.041)	0.005 (0.018)	-0.002 (0.012)
Salaries	-0.041 (0.033)	-0.055** (0.022)	0.005 (0.022)			
Safety	-0.061* (0.036)	-0.015 (0.023)	-0.051* (0.028)			
Jobcontentment	-0.091** (0.036)	-0.043* (0.023)	-0.075** (0.034)			
Place_children	-0.082** (0.039)	-0.119*** (0.035)	-0.062* (0.034)			
Education_children				-0.039 (0.036)	-0.057** (0.026)	-0.036 (0.029)
Work_opportun_partner				-0.159** (0.072)	-0.126*** (0.039)	-0.063 (0.042)
Place_family_partner				-0.050 (0.036)	-0.061** (0.026)	-0.073* (0.043)
# observations	203	203	197	169	171	169
# uncensored	64	138	143	45	112	114

Notes: ***, **, * imply that the coefficient is significant respectively at 1%, 5% and 10% significance level. Standard errors are in parentheses.

References

- Ambrosini, W., Mayr, K., Peri, G., Dragos, R. (2011). *The selection of migrants and returnees: Evidence from Romania and implications*. Cambridge: NBER Working paper 16912.
- Autor, D., Handel, M. (2009). *Putting tasks to the test: Human capital, job tasks and wages*. Cambridge: NBER working paper series.
- Borjas, G. (1987). Self-selection and the earnings of immigrants. *American Economic Review*, 77, 531-553.
- Borjas, G., Bratsberg, B. (1996). Who leaves? The outmigration of the foreign-born. *The Review of Economics and Statistics*, 78 (1): 165-176.
- Bovenkerk, F. (1981). Why returnees generally do not turn out to be: "agents of change": The case of Suriname. *New West Indian Guide*, 55 (3): 154-173.
- Constant, A., Massey, D. (2003). Self-selection, earnings, and out-migration: A longitudinal study of immigrants to Germany. *Journal of Population Economics*, 16 (4), 631-653.
- de Jong, G. (2000). Expectations, gender, and norms in migration decision-making. *Population Studies: a Journal of Demography*, 54 (3): 307-319.
- Dulam, T., Franses, P. (2011). *Emigration, wage differentials and brain drain: The case of Suriname*. Rotterdam : Erasmus School of Economics: Econometric Institute Report 2011-33.
- Dulam, T., Franses, P. (2014). *Microeconomic determinants of skilled migration: The case of Suriname*. Rotterdam: Erasmus School of Economics: Econometric Institute Report 2014-21.
- Dustmann, C, Fadlon I, Weis Y. (2011). Return migration, human capital accumulation and the brain drain. *Journal of Development Economics*, 95, 58-67.
- Dustmann, C. (2003). Children and return migration. *Journal of Population Economics*, 16: 815–830.
- Field, A. (2009). *Discovering Statistics Using SPSS*. SAGE Publications Ltd, Third Edition.
- GBS. (2013). *Resultaten 8ste volkstelling in Suriname (volume 1): Demografische en sociale karakteristieken en migratie*. Paramaribo: Algemeen Bureau voor de Statistiek Suriname (GBS).
- Gibson J., McKenzie D. (2011). The microeconomic determinants of emigration and return migration of the best and brightest: Evidence from the Pacific. *Journal of Development Economics* , 95, 18-29.
- Greene, W. (2002). *Econometric analysis*. New Jersey: Prentice Hall.
- Gundel, S., Peters, H. (2008). *What determines the duration of stay of immigrants in Germany? Evidence from longitudinal duration analysis*. Berlin: DIW, SOEPpapers on Multidisciplinary Panel Data Research.
- Güngör, N. D., Tansel, A. (2002). Brain drain from Turkey: survey evidence of student non-return. *Social Science Research Network Electronic Paper Collection*.
- Güngör, N. D., Tansel, A. (2006). *Brain drain from Turkey: an investigation of students' return intentions*. Bonn: IZA Discussion Papers No. 2287.
- Klaver, J., Stouten, J., van der Welle, I. (2010). *Emigratie uit Nederland: Een verkennende studie naar de emigratiemotieven van hoger opgeleiden*. Amsterdam: Regioplan Beleidsonderzoek.
- Lu, Y., Zhong L., Schissel, B. (2009). To stay or return: migration intentions of students from People's Republic of China in Saskatchewan, China. *International Migration & Integration*, 10, 283-310.
- Roy, A. (1951). Some thoughts on the distribution of earnings. *Oxford Economic Papers*, 3, 135-146.
- Vezzoli, S. (2014). *The evolution of Surinamese emigration across and beyond independence: The role of origin and destination states*. University of Oxford: DEMIG project paper 28.

Wang, W., Fan, C. (2006). *Success or failure: Selectivity and reasons of return migration in Sichuan and Anhui, China*. California Center for Population Research.