## Sample Frame Construction, Tracking and Surveying, and Robustness

## Appendix to Gibson and McKenzie (2010, forthcoming)

# "The Microeconomic Determinants of Emigration and Return Migration of the Best and Brightest: Evidence from the Pacific"

### 1. The Sample Frames in Each Country

New Zealand

Our sample frame in New Zealand is comprised of four groups of individuals, each of which is a well-defined group of individuals who excelled academically. The first are members of New Zealand's Mathematical Olympiad team. New Zealand began sending teams to the Mathematical Olympics in 1988, and sends a team of 6 students per year. These students are selected on the basis of a winnowing process which begins with nationwide mathematics competitions. Since some individuals were in the team multiple years (some in their second-to-last or even third-to-last years of secondary school), over the 1988 to 2004 period there were 73 individuals in the team. The second group consists of members of New Zealand's Chemistry Olympiad team. Four students per year were sent to this competition, beginning in 1992, with students again selected through nationwide competitions. The total number of individuals in the team over the 1992-2004 period was 48.

The third group of individuals we consider are students who were top scholars in the University Bursary examinations over the period 1991-2004. These examinations are taken by almost all students in their final year of secondary school, and are the basis for entrance to University. Beginning in 1991, the New Zealand government publicly named and awarded prizes to the top overall male and female scholars, the top Maori and Pacific Island students, and the top students in each academic subject. Students choose 5 (or sometimes 6) subjects to study in their final year, with top subject prizes awarded in around 28 separate subjects each year. These subjects include more academic subjects such as calculus, physics, biology, chemistry, statistics, English, French, German, as well as art and performance oriented subjects such as music, printmaking, design, photography, and painting. Altogether there were 484 individuals who were either a top scholar overall or a top subject scholar over the 1991-2004 period.

These three groups have the advantage of containing individuals selected through nationwide competitive examinations. In order to obtain a sample frame for individuals graduating over the 1976-91 period, we instead follow the strategy that will be used in Papua New Guinea and Tonga, of selecting the top students from a set of top high schools. We identified a list of 16 secondary schools which had good geographic coverage across New Zealand and which had supplied many of the individuals in the first three groups. We then asked each school for a list of the Dux of the school each year going back to 1976. The Dux is the equivalent of the Valedictorian in the United States, and is the student who has highest academic performance in the school. This is typically awarded on the basis of performance in school examinations.

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<sup>&</sup>lt;sup>1</sup> Note the four groups are not mutually exclusive – individuals can enter the sample frame as a result of membership in any one of the four groups, but there are people who are in more than one of the groups listed here.

Altogether there were 271 individuals contained in this group. By way of comparison, 70 percent of chemistry Olympians, 66 percent of maths Olympians, and 51 percent of Bursary top scholars were the Dux or Proxime Accesit (the second best student) at their schools.<sup>2</sup> Altogether these four groups give a sample frame of 851 highly skilled individuals who graduated secondary school in New Zealand over the 1976-2004 period.

#### Tonga

Primary and secondary schooling in Tonga are nearly universal, with a gross secondary school enrolment rate of 99 percent. Education is provided by both Government and Church schools. At the secondary level, there are 10 Government schools and 32 non-Government Church and private schools. Approximately 70 percent of secondary students are in the non-Government schools, with the Government-run schools being viewed as more prestigious, and requiring high grades for entry (World Bank, 2005). Tertiary institutions include an extension center of the University of the South Pacific (USP, which is headquartered in Fiji), the Tonga Institute of Higher Education, the Tonga Institute of Technology, the Queen Salote School of Nursing, theological colleges, Tupou Tertiary Institution, and the Tonga Teachers College. Aside from the USP extension, teaching and nursing schools, the remaining tertiary institutions provide diploma level studies and certificate level courses in technical areas such as accounting and business, computing, general engineering, and hospitality.

Neither Tonga nor Papua New Guinea have participated in the mathematical or chemistry Olympiads, so this definition of a top student can not be used in either country. Many Tongans sit the New Zealand University Bursary examinations, but records are not kept of the top Tongan performances on these examinations. We therefore follow a strategy of selecting top students from selected schools.

We selected as our sample frame the Dux and Proxime Accessit from the top three high schools on the main island of Tongatapu (Tonga High School, Tonga College, and Queen Salote).<sup>3</sup> In addition, we selected the two top schools in the "outer islands",Vava'u High School and Taufa'ahau I Pilolevu College (TPC) in Ha'apai.<sup>4</sup> Queen Salote and TPC are mission schools belonging to the Free Wesleyan Church, while the other three schools are Government-run. For each we take top scholars over the period 1976-2004, except for Vava'u High School, which only opened in 1985. This gives a target sample of 266 individuals, ranging in age from 18 to 50.

Websites of the schools provided some initial information on the names of these top students. Each of the schools were then visited, and school teachers and librarians helped to reconstruct the list, using school records and old school magazines. Finally, once some students were contacted, they were used to help verify the names of the other top students in their school at

<sup>&</sup>lt;sup>2</sup> Given this overlap between groups, our results are robust to dropping individuals who were not the Dux or Proxime Accesit at their school. This should assuage concerns about the definition of who is a top student varying across countries. However, to maximize our sample size of top students we work with the broader definition of top student for our analysis here.

<sup>&</sup>lt;sup>3</sup> Tongatapu contains two-thirds of the population and one of the two international airports.

<sup>&</sup>lt;sup>4</sup> The Vava'u and Ha'apai island groups contain most of the remaining one-third of the Tongan population and Vava'u also has the second international airport.

around the same time as them. Using this combination of approaches, we were able to identify the names of 245 of the 266 Duxes and Proxime Accesits.

## Papua New Guinea

In strong contrast to Tonga and New Zealand, PNG is very far from universal education. Net primary school enrolments are less than 60%, and net secondary school enrolments less than 20%. Historically there was a major winnowing of students first at grade 6, and then at grade 10. Grades 11 and 12 were only taught at four National High Schools, where students were given the same funding as tertiary students. As an example of this winnowing process, only 7 percent of the grade 6 cohort in 1995 went on to complete grade 12 in 2001. Education reforms in the mid-1990s introduced a fifth National High School and also allowed many provincial and religious schools to teach Grades 11 and 12. PNG has a reasonably comprehensive tertiary sector with six universities. The University of Papua New Guinea was established in 1965 and offers degree programs, including a medical school and a law school. The PNG Institute of Technology (or Unitech) was established at the same time and offers degree programs in technological and applied sciences. There is also the University of Goroka which was formerly a teacher's college, a University of Natural Resources and the Environment also established in 1965, the Pacific Adventist University established in 1984, and the Divine Word University established in 1980.

School records in PNG were almost non-existent, with no school magazines or boards with the names of the Duxes and Proxime Accesits to provide a record of who the top students were. Records were also not kept in any systematically accessible way by the Ministry of Education. The only formal sampling frame came from the Office of Higher Education (OHE), which allocates slots and scholarships for tertiary study. The OHE provided the names of the 264 students who had achieved a 4.0 GPA in their Grade 12 national examinations during 1995-98 and 2000-2004. On average only 0.7% of Grade 12 exam entrants in these years achieved this perfect GPA. These 264 students had come from 30 different secondary schools, with 32% of them from the National High Schools. We therefore created a sampling frame of these 4.0 GPA students and also any Duxes or Proxime Accesits who were not on the OHE list but who were from the top two-thirds of schools supplying the 4.0 GPA group. This gave a potential sampling frame of 624 if the two groups were mutually exclusive and 376 if all of the 4.0 GPA students were also a Dux or Proxime Accesit.<sup>5</sup>

For 1976-1994 our sample frame consists of the Duxes and Proxime Accesits from the National High Schools. This gives a potential sample frame of 152 individuals over this period. However, due to a lack of school records, we were only able to identify the names of 93 of these individuals by asking former students and teachers at these schools, and through radio and television advertisements.

#### 2 Tracking and Surveying

The second phase consisted of attempting to track down the list of names, and administering the survey to them. We designed a comprehensive survey intended to collect information on many

<sup>5</sup> This is comprised of a potential 360 Duxes and Proxime Accesits from the top 20 schools plus 16 of the 4.0 GPA students who were from the lower third of schools supplying at least one 4.0 GPA student.

topics needed to measure both the determinants and consequences of highly skilled emigration. The survey contained separate modules for current migrants, return migrants, and never migrated individuals, and averaged just over one hour to complete. All of the New Zealand top students answered the survey online. A mixture of online surveys, in person surveys in New Zealand, Tonga, PNG, and phone surveys in Australia, Fiji, and the United States were used to survey the top students from Tonga and PNG. Appendix Table 1 provides descriptive statistics of the key variables to be used in our analysis by country and migrant status.

The most difficult part of the fieldwork was tracking down the current location of these top students. A wide variety of methods were used to do so. For the New Zealand top students, the initial points of contact included contact information provided by the organizers of the Mathematical and Chemistry Olympiad teams, the mailing address at the time of graduating high school for top bursary scholars provided under a research agreement with the New Zealand Ministry of Education, and information from the secondary schools used for the sample of Duxes. This was followed up by an intensive internet search, using Google, social networking sites such as Facebook and LinkedIn, alumni networking websites, and other web searches. Finally, this was complemented by social networking among the top scholars, and by telephone book searches in the New Zealand telephone directory.

In PNG and Tonga the first point of contact was their school and local community, with family members and former classmates often providing information on which country migrants were in, and some contact information. The interviews in Tonga were carried out by a former school teacher, with good contacts in schools and churches in Tonga, while those in PNG were carried out by a local survey firm. Migrants were tracked through community networks abroad and through searches of telephone directories in New Zealand, Australia and the United States. Newspaper and radio advertisements in both source and destination countries were also used to try and reach target subjects. Finally internet searches in Google and in ex-students reunion websites helped to track down a few more.

A number of methods were used in order to try and maximize response rates. First, for each of the three countries we used natives of these countries to contact participants. The survey was marketed to participants as a survey of their country's "top students", and the potential policy uses of the survey explained. Secondly, the use of web-based surveying allowed busy respondents to fill out the survey at a time of their convenience, while in-person surveys of Tongans and Papua New Guineans allowed those without easy access to the internet to participate. Participants received token compensation in the form of either a small monetary payment, a draw for Amazon.com vouchers, and in PNG a draw by the Minister of Education with US\$1000 in prize money. Finally, we will disseminate a short summary of the results, and used the fact that these top students would be curious about the lives and experiences of other top students as another incentive for participation.

### 3. Tracking and Response Rates

Table 1 summarizes the tracking rates and survey response rates, we discuss in the next section possible biases due to non-response. Tracking and response rates were remarkably high for the Tongan top students – we were able to establish either directly or through verified proxy reporting the current country of residence for all 245 top students whose names had been

identified, or 92 percent of the complete sample frame. Of these 245 individuals, 193 individuals answered the survey, a survey response rate of 73 percent of the sample frame and 79 percent of those whose names were known. There was only one or two refusals, the rest were individuals whose country of residence was reported by multiple other sources, but who we were not able to establish contact with.

Tracking and response rates were even higher for the mathematics and chemistry Olympiad team members from New Zealand, with survey response rates of 89-90 percent for both these groups. This reflects the close cooperation of the team organizers, the fact that team members have some connections between each other, the relatively young age of the individuals, and that many of the members ended up in occupations such as computer science or academia where they had established an internet presence. The tracking and response rates were 54 percent and 47 percent respectively for the top scholars in Bursary, and only 35 percent and 25 percent respectively for the pre-1992 Duxes. This reflects both the older age of these individuals, the lack of any existing contact information about them, and that in some cases only their surname and initials were kept in school records. Combining all the groups together, the total tracking and response rates were 55 percent and 44 percent respectively.

Papua New Guinea was the most challenging, due to the non-existent school records, larger population size, poor infrastructure in PNG, and the fact that a vibrant mining sector offers jobs in multiple remote locations within PNG. For the group of 1995-1998 and 2000-2004 top students, where the sampling frame was comprised of those who either had a 4.0 GPA or were a Dux or Proxime Accesit from the top 20 schools providing the group of 4.0 GPA students, the tracking and response rates were 39 percent and 29 percent respectively. For the period prior to 1995, where the sampling frame was the Duxes or Proxime Accesits at the four National High Schools, the response rate was 84 percent of those whose names were known and 51 percent of the complete sample frame for those years. Combining all the groups together, and also including nine respondents from 1999 who were located directly from schools who had been top suppliers of 4.0 GPA students in previous years, the total tracking and response rates were 43 percent and 34 percent respectively.

#### 4. Accounting for Individuals Not Surveyed.

Despite what we consider to be high tracking and response rates given the nature of study, an obvious concern is whether these migration incidence rates are biased due to non-response. We employ three methods to examine how robust our estimates are to such concerns.

The first method we use is to simply calculate bounds on the range of possible migration incidences in our data. We use the observed numbers in the sample, and the information known about the locations of individuals not surveyed. For example, let  $C_s$  and  $C_k$  be the number of current migrants in the sample and known among non-respondents respectively,  $N_s$  and  $N_k$  be the

<sup>6</sup>In the achieved sample for these years, 44 percent of the 4.0 GPA students were also a Dux or Proxime Accesit from the top 20 schools so we estimate that the combined sample had 509 students, of whom 196 were located and 149 were surveyed.

<sup>&</sup>lt;sup>7</sup> For Sogeri National High School, which is the oldest and historically most prestigious school in PNG (e.g. 2 of the 6 PNG Prime Ministers were educated at Sogeri), 76 percent of the sample frame responded, while in the other National High Schools the response rate was only 36 percent.

number of individuals who are non-migrants in the sample and among non-respondents respectively, and T denote the total population. Then a bound for the proportion of current migrants in the population is:

$$[(C_s + C_k)/T, ((C_s + C_k + T - N_s - N_k)/T]$$
 (1)

Bounds for the incidence of ever migrating and for being a return migrant are calculated in a similar fashion.

These bounds are narrowest for current migrants, since in the case of non-responders, we at most know their current location, but are unable to distinguish return migrants from non-migrants among those living in the home country. We obtain very narrow bounds in the case of Tonga, and among maths and chemistry Olympians in New Zealand. We can then, for example, bound the rate of ever migrating at between 66 percent and 73 percent for the New Zealand Olympian group, and at between 76 percent and 88 percent for the Tongan top students. The sample proportions are within these bounds in all but one case: that of current migrants among Tongan top students, where in the sample we have 50.8 percent as current migrants, compared to population bounds of between 52 percent and 65 percent. Thus it appears that the Tongan sample slightly undersamples current migrants, although the magnitude of undersampling is not large.

Since the bounds are wider for the New Zealand sample, we carry out a second approach with this group. As one would expect, our success rates for tracking individuals decline with age. For example, among the pre-1992 Dux population, we surveyed 32 percent of those aged under 40, compared to 22 percent of those aged over 40. Success rates are also slightly lower for females than males (23% for females vs 28% for males in the case of the pre-1992 Dux sample), perhaps due to name changes after marriage making it more difficult to find females on the basis of their name in secondary school. We therefore assume that, conditional on age and sex, response is at random, and use the observed migration status of the sample to impute the migration status of those not sampled. We predict whether an individual has ever migrated using the predicted probabilities from a probit regression of ever migrating on dummies for five-year age groups and a dummy for being female. Similar probits are carried out for being a current migrant and for being a return migrant. We then combine the imputed migration status for non-respondents with the actual status for survey respondents to arrive at the numbers listed as population estimates in Table 2.

We see that correcting for differential response rates by age and sex in this manner yields estimates of migration incidence which are extremely close to the sample estimates. Thus under the assumption that response is at random conditional on age and sex, the sample estimates are close to unbiased.

Finally, we can examine the reasonableness of this assumption in the case of the pre-1992 Duxes, the New Zealand sample with the worst response rates. Data collection for this group was carried out as follows. A research assistant in New Zealand made a first attempt at searching for these individuals in late 2007 and early 2008, resulting in 39 individuals from this group being surveyed. A second research assistant based in the United States then carried out a more intensive effort to try and track more of these individuals down during the summer of 2008, yielding a further 28 individuals in the survey. The rate of ever migrating among the first group

was 77 percent, compared to 79 percent in the second wave (p=0.88). The fact that those who more effort was required to track down have similar migration status to those who less effort was required for suggests that it is not unreasonable to assume that migration status among non-respondents is similar to those in the sample, conditional on age and sex.

A separate concern is whether the characteristics of the surveyed and non-surveyed individuals differ according to migrant status, thereby affecting inference about the determinants of migration. At the extensive margin we note that survey response rates are very high for Tonga, making this less of a concern there. For the New Zealand sample we test whether the key characteristics summarized in Appendix Table 1 and used for our later analysis vary for those who were initially surveyed compared to those individuals who required more extensive efforts to reach. We can not reject that the individuals who were harder to track have the same mean levels of most of our main variables of interest (risk aversion, patience, parental background, subjects studied in high school, family wealth, and expected change in income from migrating). The only variable which differs is being born outside New Zealand, where those interviewed in the second round of tracking were less likely to be born outside of New Zealand. This suggests relatively little bias is likely from these two samples from not tracking individuals. In PNG much of the non-tracking comes from schools missing records on the names of who are the top students. To the extent that there is bias from locating individuals, we expect that we are more likely to be able to locate the relatively more successful individuals, who have made a name for themselves both in their communities and online. Thus we believe despite non-response issues, we still capture the main population of interest.

The second form of non-response is item non-response. This occurs due to individuals skipping questions or only partially completing the online survey, as well as from the fact that approximately 40 Tongans were given a shorter version of the questionnaire over the telephone when attempts to get them to fill out the survey online were unsuccessful. We can reject that this item non-response varies with age, sex, education, or migrant status, suggesting that it is unlikely to be having a large effect on our results.

## 5. Are these top students a group that countries would care about for brain drain?

Our sampling approach targets individuals who were the top in terms of academic performance at the end of secondary school. A natural question is whether these individuals end up in a broad range of occupations that traditional concerns about brain drain would include, or whether these top students end up in a narrow range of restricted academic occupations. The latter would still be of some interest, but would mean that our study is really restricted to the brain drain of academics.

The New Zealand top scholars are the most likely to end up as academics, but even in this case, only one-third of working current migrants and less than 10 percent of working return and non-migrants are in academia. In the New Zealand sample, the main occupations of current migrants are academic or researcher (35%), management consultant, investment banker, or businessperson (21%), software developer or other information technology professional (12%), medical doctor

<sup>&</sup>lt;sup>8</sup> The difference is also small (less than 0.02) and statistically insignificant after controlling for differences in age and sex among the two subsamples.

(6%) and lawyer (5%). There are also a range of other professions, including an architect, magazine editor, musician, designer, and a professional triathlete. Employers include prestigious universities such as Harvard, Stanford, MIT, Cambridge and Oxford, top global consulting firms such as McKinsey, Morgan Stanley, JP Morgan, top law and accounting firms such as Booz Allen Hamilton and PriceWaterhouse Coopers, and leading IT companies such as Microsoft and Intel.

The occupations amongst those in New Zealand (non-migrants and return migrants) are more diverse, and include medical doctors (17%), IT professionals (12%), academics (9%), bankers, management consultants and other related business people (8%), lawyers (7%) and engineers (5%). The wide range of other occupations includes artists, a director of television commercials, designers, a pastor, several bureaucrats, and secondary school teachers.

Among the working current migrants from Tonga, the main occupations are medical doctors and nurses (19%), school teachers (10%), and bankers and accountants (10%). Other occupations include an Ambassador, several working in IT, engineers, academics, and a couple of individuals in the U.S. Armed Forces. The main occupations among those working in Tonga are school teachers (28%), medical doctors and nurses (20%), public servants such as Secretary and Assistant Secretaries, Deputy Directors, and other such positions in Government departments (13%), high-level business positions such as company director or chief financial officer (6%), and accountants and bankers (6%). Other occupations include a preacher, engineers, lawyers, IT, an aviation consultant, and an academic.

Among the top students from PNG that are working in PNG, the main occupations are in information technology (21%), engineers (11%), accounting and finance (7%), lawyers (7%), and academics (5%). A wide range of other occupations includes pilots, geophysicists, a veterinarian, project managers, a malaria statistician, and medical officers. The handful of top students from PNG that are working overseas are in similar occupations: IT, accounting, law, academia, engineering, and nursing.

Thus it appears that the top students are not just academics, and that they engage in a wide range of occupations which incorporate many of the skilled occupations that one might think have positive externalities for development. Thus the migration and return migration of these individuals should be of importance for considerations of brain drain and brain gain.

Appendix 1: Descriptive Statistics for Main Variables Used

Appendix 1: Descriptive Statistics for Main Var	# non-missing	Current Migrants		Return Migrants		Non-Migrants	
	observations	Mean	S.D.	Mean	S.D.	Mean	S.D.
Panel A: New Zealand Data			<u> </u>				<u> </u>
Age	371	29.91	5.87	32.57	7.12	27.13	6.37
Female	371	0.37	0.49	0.43	0.50	0.41	0.49
Mother has secondary school or less	365	0.27	0.45	0.27	0.44	0.26	0.44
Born abroad	368	0.38	0.49	0.20	0.40	0.29	0.46
Risk seeking score	346	6.11	2.13	6.04	1.99	5.24	1.99
Dummy for being patient	330	0.38	0.49	0.30	0.46	0.32	0.47
Studied a foreign language	360	0.33	0.47	0.42	0.50	0.27	0.44
Studied all three science subjects	360	0.31	0.46	0.23	0.42	0.17	0.38
Real exchange rate when of prime migrant age	345	120.62	10.52	120.11	9.63	124.28	11.35
Two or more trips abroad while in school	366	0.25	0.44	0.38	0.49	0.32	0.47
Above average wealth in high school	366	0.38	0.49	0.46	0.50	0.37	0.48
Below average wealth in high school	366	0.09	0.29	0.05	0.22	0.12	0.32
Change in log income expected from migration	154	0.36	0.80	0.53	0.64	n.a	n.a
Has a parent alive in their home country	364	0.90	0.30	0.97	0.16	0.97	0.17
Has a spouse who is a citizen of another country	371	0.25	0.44	0.12	0.33	0.01	0.09
Extent to which salaries draw them abroad	345	1.29	0.76	0.96	0.78	0.91	0.91
Extent to which lifestyle draws them abroad	344	-0.86	1.21	-1.32	0.83	-1.17	1.05
Extent to which career draws them abroad	343	1.46	0.86	0.26	1.19	0.39	1.07
Panel B: Tonga Data							
Age	193	31.76	9.02	35.14	7.27	27.81	8.05
Female	193	0.51	0.50	0.52	0.50	0.56	0.50
Mother has secondary school or less	139	0.73	0.45	0.74	0.44	0.81	0.40
Born abroad	193	0.13	0.34	0.03	0.18	0.00	0.00
Risk seeking score	119	6.97	2.26	7.47	2.35	7.76	2.44
Dummy for being patient	101	0.38	0.49	0.32	0.47	0.33	0.49
Studied a foreign language	193	0.01	0.10	0.02	0.13	0.00	0.00
Studied all three science subjects	138	0.44	0.50	0.45	0.13	0.13	0.34
Real exchange rate when of prime migrant age	167	96.77	4.72	96.09	4.93	96.98	4.63
Two or more trips abroad while in school	143	0.20	0.40	0.25	0.44	0.17	0.39
Above average wealth in high school	141	0.25	0.40	0.09	0.29	0.00	0.00
Below average wealth in high school	141	0.32	0.47	0.28	0.45	0.65	0.49
Change in log income expected from migration	42	1.59	1.48	0.91	1.53	n.a	n.a
Has a parent alive in their home country	134	0.75	0.43	0.88	0.33	1.00	0.00
Has a spouse who is a citizen of another country	193	0.73	0.43	0.06	0.35	0.00	0.00
Extent to which salaries draw them abroad	115	1.09	1.13	0.72	1.26	0.83	1.47
Extent to which lifestyle draws them abroad	116	0.00	1.50	-0.92	1.26	-0.42	1.47
Extent to which career draws them abroad	115	1.12	1.27	0.62	1.34	0.79	1.36
Extent to which career draws them abroad	115	1.12	1.27	0.62	1.34	0.79	1.36
Panel C: PNG Data							
Age	238	37.27	6.87	36.98	8.28	28.39	6.15
Female	238	0.32	0.87	0.32	0.47	0.34	0.13
Mother has secondary school or less	201	0.52	0.46	0.32	0.47	0.54	0.40
Born abroad	237	0.00	0.00	0.02	0.49	0.03	0.30
Risk seeking score	200	7.24	2.51	6.43	2.14	6.76	2.21
•	171	0.38	0.50	0.43	0.43	0.76	0.43
Dummy for being patient	213	0.05	0.30	0.24	0.43	0.23	0.43
Studied a foreign language							0.40
Studied all three science subjects	213	0.43	0.51	0.46	0.50	0.20	
Real exchange rate when of prime migrant age	188	112.75	16.97	112.99	16.86	101.84	11.24
Two or more trips abroad while in school	205	0.19	0.40	0.28	0.45	0.24	0.43
Above average wealth in high school	206	0.05	0.22	0.15	0.36	0.06	0.24
Below average wealth in high school	206	0.38	0.50	0.36	0.48	0.28	0.45
Change in log income expected from migration	57	1.00	1.29	0.82	1.04	n.a.	n.a.
Has a parent alive in their home country	207	0.81	0.40	0.87	0.34	0.92	0.27
Has a spouse who is a citizen of another country	238	0.27	0.46	0.03	0.18	0.02	0.14
Extent to which salaries draw them abroad	197	1.52	1.03	1.04	1.11	1.34	0.95
Extent to which lifestyle draws them abroad	199	0.48	1.63	0.35	1.55	0.38	1.30
Extent to which career draws them abroad	197	1.14	1.20	0.56	1.30	1.06	1.11

Note: n.a. denotes not available. Expectations of income abroad were not asked of non-migrants.