Does Money Buy Immigrants' Happiness? A Longitudinal Perspective.

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1. Introduction

Neoclassical micro economic theory suggests that international migration is an individual decision motivated by income maximization. Net of immigration costs, potential immigrants choose to move where they anticipate that can be most productive and obtain the largest economic return (Sjaastad 1962; Todaro 1969). Economic success, however, does not happen overnight. Immigrants need time to obtain returns from the initial investments of learning a new language and adapting to a different culture. In addition, immigrants at arrival usually lack the specific skills needed for an optimal performance in the country of destination's labor market. As time in the host country increases immigrants assimilate into the new job market and invest in the specific skills and talents necessary to increase their income (Becker 1975; Mincer 1974).

According to these theories, immigrants' wellbeing[1] would be determined by how well they fare economically, which should improve with time spent in the destination country. Although numerous studies have shown that immigrants narrow the initial earning gap with natives with time of residence in the host country (e.g. Basilio and Bauer 2010; Constant and Massey 2005); evidence suggests that the relationship between economic gain and subjective wellbeing is not straightforward. Actually, it is well established that although people are happier in wealthier countries, usually countries of destination, than in poorer nations, usually countries of origin; at the individual level the relationship between income and subjective wellbeing is

[1] In this paper we follow the research literature in where life satisfaction and happiness are often understood as

only modest. An explanation for this puzzle is that the effect of income on subjective wellbeing is not absolute and objective, but relative and subjectively moderated by the group ones' uses to compare their own economic success (Easterlin 1974, 2005). Foundational theories of labor migration assumed that the referent group immigrants would use to gauge their economic success in the destination country would change over the life course. Hence, recent arrivals would compare their income with fellow citizens from the home country and would switch the comparison group to the native born population as they spent time in the destination country (Piore 1979; Stark 1991). Immigrants' life satisfaction therefore would diminish with time in the destination country, even if their economic situation improved, as they would not reach income parity with the native born population (Obúcina 2012).

Are then economic migrants mistaken on their pre-migration expectations, or is there a positive association between economic gain and life satisfaction for international migrants in destination countries? The purpose of this study is to examine this question. Using a representative sample of immigrants from the German Socio-Economic Panel (G-SOEP), we investigate whether immigrants obtain more life satisfaction from their income than comparable native-born individuals, even as they spend time in the host country. Recipient countries have segmented labor markets that place immigrants at different positions in the income distribution throughout their working life; and immigrants who enter into the least-advantageous positions of the income distribution may not experience economic assimilation even with additional years in the host country (Piore 1979). In contrast, others more privileged may enter directly to the highest segment of the income distribution and never move, whereas others may experience periods of economic improvement as well as periods of economic drawbacks. Therefore, we also examined whether immigrants obtain more life satisfaction from their income than comparable

native-born individuals as they navigate the German labor market and experience different positions in the income distribution.

2. Relationship between Income and life satisfaction for International Migrants

Although the hypothesis that the relationship between income and life satisfaction is as tenuous for immigrants as it is for non-immigrants challenges a theory that has been traditionally used to explain immigrants' decision-making behavior, empirical evidence on the effect of income on the life satisfaction of international immigrants is rare, very recent, and has not yield consistent results. Employing data from the 1995 wave of the World Values Survey, Bartram (2011) was the first to examine whether in the US immigrants obtained more life satisfaction from their absolute income than comparable native-born individuals. Results revealed that even after adjusting for demographic and socioeconomic characteristics, immigrants' satisfaction with life appeared to be associated with their income to a higher extent than for natives, especially for immigrants moving from nations less economically developed than the U.S. Olgiati and colleagues (2013) replicated Bartram's study in 16 high-income destination countries with data from the Gallup World Poll. Results not only failed to replicate the positive relationship between income and life satisfaction found by Bartram in the U.S., but also revealed that only in a handful of countries immigrants obtained more life satisfaction from their income than comparable native-born individuals. Another study conducted to investigate why despite enjoying higher incomes and lower unemployment rates than Moroccan immigrants, Turkish immigrants were the least happy immigrant group in the Netherlands, discovered that Turkish immigrants made upward economic and social comparisons with native Dutch, which were negatively associated with their life satisfaction and explained the differences in life satisfaction between both immigrant groups (Gokdemir and Dumludag 2012).

These studies are very informative concerning the effect of income on life satisfaction at a specific point of time in the life of immigrants in the destination country, but cannot address an important aspect of the neoclassical micro-economic theory of immigrants' decision-making behavior, such as whether the relationship between income and life satisfaction is stronger for immigrants than for comparable natives even after years spent in the destination country; or if, in contrast, immigrants are mistaken and the relationship between income and life satisfaction for them is as fragile as for the native population, or if, alternatively, they reach a point of satiation where income does not translate into more life satisfaction. A study conducted with a representative sample of the U.S. population found that North Americans reached a satiation point where higher income did not translate into more joy, stress, or sadness (Kahneman and Deaton 2010).

Additionally, studies based on single-occasion, cross-sectional designs like the ones describe above make it difficult to disentangle how social comparisons influence the association between income and life satisfaction. Research has shown that immigrants that compare their income with native-born individuals obtained less life satisfaction from their economic success in the Netherlands (Gokdemir and Dumludag 2012). A recent study has challenged traditional theories of economic migration revealing that international migrants do not switch their comparison group from peers in the country of origin to natives in the destination country as time in the destination country increases, but that they behave according to transnational perspectives of international migration and compare themselves simultaneous with the natives of the destination country and with peers from their home country, therefore maintaining simultaneous reference groups throughout their migratory experience (Gelatt 2013). Following the same rationale it could be argue that immigrants' life satisfaction would vary according to the group they would

use to compare their economic success with (social comparison). Obúcina (2012) provides evidence that this is indeed the case and concludes that it cannot be argued that immigrants are more or less satisfied than comparable native Germans since immigrants' satisfaction varies by immigrant group. The literature has been silent, however, concerning the role of habituation -or comparison to oneself economic achievements in the past- on immigrants' life satisfaction; both for immigrants who follow linear patterns of economic assimilation and for immigrants who do not because they get trapped in different segments of the labor market in receiving societies or they fluctuate between periods of economic bonanza and economic downsides.

Finally, it is difficult to disentangle issues of directionality with single-occasion, cross-sectional designs. Life events usually do not happen randomly and making money is not exception. Evidence shows that happy people earn more money throughout their life course than people with lower levels of subjective well being (De Neve and Oswald 2012).

In this study we extend previous research and follow foreign-born individuals living in Germany to examine the following research questions: (1) Is the relationship between income and life satisfaction stronger for immigrants than for comparable native-born individuals in Germany? (2) How does the duration of stay in Germany affect the association between income and life satisfaction for the immigrant population? (3) Is the relationship between income and life satisfaction stronger for immigrants than for comparable native-born individuals at different points of the income distribution?

3 Data and Measures

3.1 Data

We use the German Socio-Economic Panel Study (SOEP) as our data source. The SOEP is a longitudinal study of private households conducted by the German Institute for Economic

Research (DIW Berlin) and implemented by the fieldwork organization TNS Infratest Sozialforschung. The SOEP panel was started in 1984 and to date includes 28 annual waves of data, with 2011 being the most recent wave. At the time of German unification the SOEP panel was extended to the Eastern German states. The SOEP includes about 11,000 households with more than 20,000 household members.

Robust assessment on the effect of economic gain on immigrants' life satisfaction requires of long-term, individual-level panel data with detailed economic and immigration-related information. The SOEP data is ideal for this purpose because it has been following oversamples of foreign-born populations in Germany from 1984 to 2011 collecting information about their country of origin, wellbeing, economic trajectories, and socio-demographic characteristics. The time span of this study is from 1994, the year when representative samples of ethnic Germans from the former Soviet Union and other Eastern European countries where added to the survey, until 2011 which is the last wave of data currently available. We focus on the West German sample of the SOEP, because there are quite fundamental differences between Eastern and Western Germany in terms of life satisfaction. We would like to compare the life satisfaction of immigrants to a relatively homogeneous native population and not to the weighted sum of two rather different sub-populations

3.2 Well-Being

Life satisfaction is only a partial representation of subjective well being -a complex concept that lacks universal definition- but which is often understood as a personal assessment of one's life comprised of a long-term cognitive dimension -life satisfaction- and a temporal affective dimension (Diener 1984; Diener et al. 1999; Lucas et al. 1996). Empirical evidence suggests that although both components are related with subjective well-being, the correlation is stronger for

life satisfaction as it involves an evaluative component of one's own well-being that is less susceptible to the impact of external circumstances (McMahan and Estes 2011).

Life satisfaction is the wellbeing measure more widely used and previous literature on the relationship between income and life satisfaction for international migrants is no exception. To assure comparability among studies we follow previous literature and employ life satisfaction as the main dependent variable in this study. To measure life satisfaction we used respondents' answer to the question "How satisfied are you with your life, all things considered?" Answers could range from 0 (completely dissatisfied) to 10 (completely satisfied).

3.3 Income and Immigration Status

The main explanatory variables of this study are the monthly per capita income (in logarithm scale) and nativity status. Income is defined as monthly income of the household in the SOEP. We adjust the household income for household size and composition using the standard OECD modified equivalence scale (i.e. we assign a weight of 1 to the household head, of 0.5 to each additional adult member and of 0.3 to each child) to make it per capita income. We excluded the lowest and highest income percentile from the analysis to ensure that our findings are not driven by rather extreme values.

Nativity status is a dummy variable with the value of one if the respondent answered "no" to the question "where you born in this country?" In addition, to account for the ethnic diversity of the immigrant population of Germany we followed Obúcina (2012) and categorized respondents by country of origin as follow: (1) Turkey, (2) Eastern Europe (ethnic Germans born in the former Soviet Union and other Eastern European countries), (3) Southern Europe (immigrants originating from Italy, former Yugoslavia, Spain and Greece who came to Germany mainly through formal bilateral recruitment programs), and (4) a residual heterogeneous group

comprising the remaining foreign-born individuals in the sample.

3.4. Socio-demographic Covariates

The remained variables considered in the models are well established in the literature as determinants of life satisfaction and have been included in previous studies on life satisfaction and income. Age and age squared account for the quadratic relationship between age and life satisfaction (Siedlecki et al. 2008). Gender is a dummy variable that adjusts for women's higher levels of wellbeing as compared to men (Graham and Chattopadhyay 2012). The dummies divorced, widowed and unemployed adjust for the fact that people who undergo divorce, unemployment or widowhood do not entirely recover to their previous levels of life satisfaction (Lucas 2005; Lucas et al. 2004; Lucas et al. 2003). To adjust for the positive correlation between individual's satisfaction with their own health and overall life satisfaction (Veenhoven 2008) we included the answers to the question "How satisfied are you with your health?" Answers could range from 0 (completely dissatisfied) to 10 (completely satisfied). We also adjust for educational attainment and number of children and adults in the household.

4 Empirical Strategy.

Our dependent variable life satisfaction (LS) is measured every year at the individual level and can vary over time. We have two main regression equations to study the association of life satisfaction with migration status and income.

$$(1) \qquad LS_{it} = \alpha + \beta_1 \log(y_{it}) + \beta_2 M_i + \beta_3 \log(y_{it}) * M_i + \beta_0 X_{it} + \delta_t + \varepsilon_{it}$$

$$(2) \qquad LS_{it} = \alpha + \beta_1 log(y_{it}) + \beta_2 D_{it} + \beta_3 log(y_{it}) * D_{it} + \beta_0 X_{it} + \gamma_i + \delta_t + \varepsilon_{it}$$

In (1) equation we include monthly per capita income (y) in natural logarithmic units and the migration status (M) as well as the interaction between the two as main explanatory variables. For migration status we use various measures. The simplest measure of migration status is a dummy variable that indicates whether or not the individual was born in a foreign country. In a next step, we run the regression for immigrants from Turkey, Eastern Europe, Southern Europe and the rest of the World as regions separately comparing each of these immigrant groups to the native population. The foreign-born status and region of origin are constant over time for each individual. Thus, these regressions only exploit temporal variation in the dependent variable and income per capita. We further include year fixed effects as well as a full set of covariates (X) in the regression. Covariates include age (in years), age squared, sex, number of children under the age of 16 in the household, an indicator if the individual currently is in a relationship, indicator variables for divorced and widowed, unemployment status, level of education (indicator variables for secondary education as well as higher education, excluding less than secondary education) and satisfaction with own health.

Equation (2) exploits the panel structure of the data. The dependent variable is the same as before and also log income per capita is included as explanatory variable. For migration status we now use years since migration or the duration in Germany (D) as main explanatory variable. Since both the dependent variable and the main explanatory variables vary over time, we can now control for individual fixed effects. We only consider foreign-born individuals with this equation. The rest of the specification is the same as before. We control for year fixed effects and a full set of covariates. We now exclude the covariates that are constant over time, because their effect is already captured in the individual fixed effect.

5 Results

5.1 Summary statistics

About 12 percent of the study participants were foreign born. About half of them came to Germany more than 20 years prior to the survey. Another 43 percent came 5 to 20 years before the survey and the remaining seven percent came within the last five years before the survey. About half of the Turkish immigrants came to Germany more than 20 years ago and another 42 percent came to Germany 5 to 20 years before the survey. Two thirds of the Southern European immigrants came to Germany 5 to 20 years before the survey. About two thirds of the Eastern European immigrants and immigrants from the rest of the world have been in Germany for more than 20 years.

Native-born Germans earn higher incomes than immigrants and are more satisfied with their lives (Table 1). There are also large differences in income and life satisfaction between the various immigrant groups. Turkish immigrants had a monthly per capita income of 831 Euro, Southern European immigrants 1030 Euro, Eastern European immigrants 1082 Euro and immigrants from the rest of the world 1303 Euro.

Concerning socio-demographic characteristics, the native German population is slightly older and has a slightly larger share of females than the foreign born population. In contrast, immigrants live in slightly larger households and have more children. The unemployment rate in the foreign born population is about twice as high as in the native German population. Immigrants are much more likely to be in a relationship than native Germans. In both the foreign born population and the native German population, about one quarter of the sample has more than secondary education. In the native German population one half has secondary education and one quarter has completed primary education. In the foreign born sample 40 percent have completed primary education and only 35 percent have also completed secondary education

5.2 Association of income and life satisfaction

A primary question that we raise in this study is whether the relationship between life satisfaction and income is different for foreign-born than for native-born Germans. The positive and significant interaction term in the first column of Table 2 suggests that life satisfaction of immigrants increases more with increasing income than the life satisfaction of comparable native-born Germans. These results support Bartram's (2011) findings for the United States. However, the absolute differences in life satisfaction between foreign-born and native-born Germans are quite high. Adjusted for covariates, foreign-born have about 0.5 lower life satisfaction than native born. The coefficient of the interaction term is 0.065. It would take an increase of log income of about 7.5 (which is equivalent to an 18-fold income!) to compensate for the level-difference with the additional life satisfaction received from increasing income. Thus, increasing income merely helps foreign born in Germany to catch up to the higher life satisfaction of native-born.

Next we investigate the relationship by immigrants' origin. Both the foreign born dummy and the interaction term of foreign born with log income are insignificant for Eastern and Southern European immigrants. For Turkish immigrants and immigrants from the rest of the world both coefficients are statistically significant. For Turkish immigrants life satisfaction, adjusted for covariates, is 1.4 lower compared to native-born and the interaction term between migration status and log income is 0.165. Thus, Turkish immigrants receive substantial additional life satisfaction from increasing income. However, similarly to the sample of all immigrants, it would take a 30-fold income to compensate for the level difference between Turkish immigrants and native born. The same line of argument holds for immigrants from the rest of the world. Here the level differences to natives, adjusted for covariates, is 0.59 and the

coefficient of the interaction term is 0.079. Also immigrants from the rest of the world receive additional life satisfaction from increasing income, but also for them it would take an 18-fold income to compensate for the level difference with the native-born.

Other results from the analysis, such as the negative association between immigration and life satisfaction confirms previous findings from Europe (Baltatescu 2007; Gokdemir and Dumludag 2012; Safi 2009) and from the US (Baltram 2011). Other variables in the model behaved as expected in relation to life satisfaction and have been reported in previous research.

5.3 Association of income and life satisfaction by time in the country

In the cross sectional regression, we already looked at the association income-life satisfaction association for immigrants as compared to natives by time in the country. As a next step we study how the association between income of immigrations and their life satisfaction changes with time in the country. For all immigrants, except for Southern European immigrants, we find that life satisfaction increases with income (Table 3). However, we find little to no support for the hypothesis that the association of income with life satisfaction changes with the time in the country. The interaction term of income with years since migration is statistically insignificant for all samples except for Turkish immigrants. For Turkish immigrants the interaction term is negative and statistically significant. This would imply that the positive effect of income on life satisfaction decreases with time in the country. However, the coefficient of years since migration is statistically insignificant and it is therefore not very meaningful to interpret the interaction effect.

5.4 Association between income and life-satisfaction by income groups

In the previous two sections we implicitly assumed that the relationship of income and life satisfaction was linear. Now we relax this rather rigid assumption and study the association

between income and life satisfaction by income groups. That means, we allow for the association to differ between income groups, in theory it could be negative for the poorest group, positive for the richest group and null for the middle class – or any other combination. To this end, we split the sample in four income quartiles. We assign individuals to the income quartile to which they belonged in the first year we observe them as they spend time in Germany. We include indicator variables for the income quartile membership of the last observed year as control variable. Movements along the income distribution potentially have strong effects (both up and down) on life-satisfaction and that's why it is important to control for that.

In Table 4 we replicate the cross-sectional analysis by income quartile and in Table 5 we replicate the panel analysis by income quartile. In Table 4 we find that for the first, third and forth quartile, foreign born have a substantially lower life satisfaction than native born. We find no significant differences for the second quartile. Interestingly, the difference in life satisfaction between foreign born and native born is most pronounced for the richest quartile (2.1 difference compared to a 1.0 difference in the poorest quartile). For the first, third and forth quartile also the interaction term of foreign born and income is statistically significant. The magnitude is so small though that similarly high increases in income would be need to compensate for the level difference with native born (7-fold for the poorest quartile, 18-fold for the third quartile and 30-fold for the richest quartile).

In Table 5 we find that the interaction term of income and years since migration is statistically significant for the first and third quartile. In both cases, the sign is negative which would imply that the effect of income on life satisfaction decreases with time in the country. However, in both cases either the coefficient of years since migration or income is statistically

insignificant at the 5-percent level and thus does not allow a meaningful interpretation of the interaction term.

6. Discussion

Policy decisions concerning the incorporation of immigrants in destination countries are heavily influenced by economic outcomes. Although economic indicators are crucial in the early stages of the incorporation process, where the fulfillment of basic needs usually is newcomers' priority, they are misleading as immigrants spend time in the country of adoption and differences in happiness do not longer stem from economic inequalities. Actually, evidence shows that money does very little for individuals' happiness in the long run (Easterlin 1974; Luhman *et al.* 2011).

In this paper we assessed the effect on income on immigrants' happiness in Germany. Results suggest that immigrants obtained more happiness from their income than comparable natives. However, the amount of life satisfaction that immigrants obtained from their income was not enough to close the life satisfaction gap with native-born individuals. The positive relationship between income and happiness was especially significant for the Turkish immigrants, although time in Germany decreased the effect of income on the happiness of Turkish immigrants. Finally, we tested whether the income had a different effect on immigrants' happiness as they navigated the German labor market. We found that immigrants were consistently unhappier than native-born Germans across the income distribution. However, the differences were more substantial among individuals with the highest income. This suggested that even though immigrants "*made it*" economically, their life satisfaction was the lowest as compared to native-born individuals.

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Table 1: Descriptive statistics

	Native		Foreign born		Turkey		Southern Europe		Eastern Europe		Other immigrants	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Years since migration	-	-	20.52	11.44	20.43	11.83	24.58	11.31	18.84	11.40	20.87	12.55
Life satisfaction	7.10	1.87	6.86	1.94	7.08	1.87	6.93	1.97	6.89	1.91	7.01	1.92
Household per capita income	1272.10	700.86	1054.19	593.73	1257.19	695.46	1030.29	511.81	1082.18	589.54	1302.97	778.59
Age	48.25	18.76	45.40	15.77	48.11	18.52	46.60	14.42	47.49	16.86	44.78	14.40
% Female	0.53	0.50	0.50	0.50	0.52	0.50	0.42	0.49	0.54	0.50	0.49	0.50
Number of adults in household	2.08	0.88	2.29	0.95	2.10	0.89	2.35	1.01	2.21	0.88	2.14	0.79
Number of children in household	0.47	0.84	0.81	1.11	0.49	0.86	0.74	0.99	0.60	0.99	0.82	1.15
% Unemployed	0.06	0.24	0.12	0.33	0.07	0.25	0.12	0.32	0.12	0.32	0.09	0.29
% Single	0.25	0.43	0.15	0.35	0.24	0.43	0.13	0.34	0.16	0.37	0.17	0.37
% In a relationship	0.57	0.49	0.73	0.45	0.58	0.49	0.74	0.44	0.69	0.46	0.72	0.45
% Divorced	0.07	0.25	0.07	0.25	0.07	0.25	0.07	0.26	0.07	0.26	0.08	0.27
% Widowed	0.11	0.31	0.06	0.23	0.11	0.31	0.06	0.23	0.08	0.27	0.03	0.18
Health satisfaction	6.57	2.36	6.57	2.39	6.57	2.36	6.62	2.42	6.48	2.39	6.82	2.30
% With primary education	0.26	0.44	0.39	0.49	0.26	0.44	0.55	0.50	0.32	0.47	0.17	0.38
% With secondary education	0.49	0.50	0.35	0.48	0.48	0.50	0.29	0.45	0.39	0.49	0.41	0.49
% With higher education	0.25	0.43	0.26	0.44	0.25	0.43	0.16	0.37	0.28	0.45	0.42	0.49
Number of observations	322,728		61,799		16,950		16,355		23,641		4,853	
Population share	83.93		16.07		4.41		4.25		6.15		1.26	

Table 2: Cross-sectional regression

	(1)	(2)	(3)	(4)	(5)
	Total sample	Turkey	Southern Europe	Eastern Europe	Other immigrants
lnypc	0.474***	0.466***	0.466***	0.472***	0.464***
	(0.00733)	(0.00746)	(0.00747)	(0.00741)	(0.00748)
foreign_born	-0.493***	-1.385***	-0.0360	0.359**	-0.589**
	(0.125)	(0.277)	(0.283)	(0.183)	(0.286)
lnypcXforeign_born	0.0654***	0.168***	-0.00265	-0.0451*	0.0793**
	(0.0179)	(0.0410)	(0.0408)	(0.0262)	(0.0402)
age	-0.0181***	-0.0165***	-0.0163***	-0.0183***	-0.0168***
	(0.00112)	(0.00118)	(0.00119)	(0.00116)	(0.00119)
age2	0.000304***	0.000287***	0.000284***	0.000304***	0.000290***
	(1.09e-05)	(1.14e-05)	(1.14e-05)	(1.12e-05)	(1.15e-05)
female	0.0933***	0.0913***	0.0894***	0.0890***	0.0908***
	(0.00594)	(0.00627)	(0.00629)	(0.00615)	(0.00632)
children	0.0151***	0.00904**	0.00643	0.0110***	0.00209
	(0.00366)	(0.00398)	(0.00406)	(0.00388)	(0.00406)
adults	0.0230***	0.0242***	0.0243***	0.0294***	0.0255***
	(0.00349)	(0.00370)	(0.00374)	(0.00365)	(0.00377)
in_a_relationship	0.184***	0.192***	0.193***	0.198***	0.193***
	(0.0101)	(0.0106)	(0.0106)	(0.0104)	(0.0107)
divorced	-0.206***	-0.192***	-0.189***	-0.191***	-0.188***
	(0.0152)	(0.0159)	(0.0159)	(0.0156)	(0.0159)
widowed	-0.103***	-0.0818***	-0.0878***	-0.0744***	-0.0793***
	(0.0164)	(0.0172)	(0.0172)	(0.0168)	(0.0172)
unemployed	-0.520***	-0.532***	-0.531***	-0.522***	-0.529***
	(0.0117)	(0.0128)	(0.0129)	(0.0124)	(0.0131)
satisfaction_health	0.402***	0.403***	0.403***	0.401***	0.402***
	(0.00136)	(0.00144)	(0.00144)	(0.00141)	(0.00145)
secondary	0.0212***	0.0102	0.0120	0.0129*	0.0148*
	(0.00740)	(0.00789)	(0.00792)	(0.00776)	(0.00801)
higher	0.00428	-0.00230	-0.00102	-0.00338	-0.00155
	(0.00873)	(0.00940)	(0.00943)	(0.00917)	(0.00950)
Constant	1.477***	1.490***	1.487***	1.490***	1.516***
	(0.0550)	(0.0562)	(0.0564)	(0.0558)	(0.0565)
Observations	277771	247914	246470	258000	244247
R-squared	0.285	0.287	0.285	0.282	0.283
Year FE	YES	YES	YES	YES	YES

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 3: Panel regression

	(1) All migrants	(2) Turkey	(3) Southern Europe	(4) Eastern Europe	(5) Other immigrants
years_since_migration	-0.0248*	0.124	-0.125*	-0.242***	0.00942
	(0.0149)	(0.0846)	(0.0736)	(0.0708)	(0.0894)
lnypc	0.494***	0.984***	0.259	0.455***	0.324**
	(0.0521)	(0.150)	(0.190)	(0.0678)	(0.134)
yearsXincome	-0.00324	-0.0201***	0.00301	-0.000972	0.00291
	(0.00205)	(0.00584)	(0.00616)	(0.00304)	(0.00505)
children	0.0166	0.0230	0.0658*	0.0149	-0.000533
	(0.0128)	(0.0246)	(0.0366)	(0.0193)	(0.0384)
adults	0.00222	-0.0646***	0.0299	0.0318*	0.0339
	(0.0126)	(0.0238)	(0.0329)	(0.0188)	(0.0410)
in_a_relationship	0.146***	0.0396	0.0944	0.223***	0.113
	(0.0558)	(0.136)	(0.165)	(0.0787)	(0.156)
divorced	-0.0664	-0.469**	-0.395*	0.113	0.262
	(0.0813)	(0.214)	(0.237)	(0.109)	(0.219)
widowed	-0.294***	-0.837***	-0.832***	0.0488	-0.888***
	(0.100)	(0.260)	(0.273)	(0.130)	(0.298)
unemployed	-0.343***	-0.324***	-0.291***	-0.422***	-0.0392
	(0.0281)	(0.0586)	(0.0689)	(0.0394)	(0.0937)
satisfaction_health	0.255***	0.297***	0.270***	0.237***	0.224***
	(0.00475)	(0.0105)	(0.0114)	(0.00669)	(0.0136)
secondary	-0.112***	-0.128	-0.111	-0.113**	0.144
	(0.0380)	(0.0806)	(0.1000)	(0.0534)	(0.138)
higher	-0.0724	-0.139	0.159	-0.0624	0.0170
	(0.0458)	(0.0939)	(0.119)	(0.0652)	(0.161)
Constant	2.857***	0.599	6.677***	-3.605*	6.356***
	(0.373)	(2.415)	(2.181)	(2.098)	(2.220)
Observations	36067	7937	6328	17572	4229
R-squared	0.131	0.149	0.167	0.128	0.119
Number of pid	5752	1297	1390	2428	637
Individal FE	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 4: Cross-sectional regression by quartile

	(1) Quartile 1	(2) Quartile 2	(3) Quartile 3	(4) Quartile 4
foreign_born	-0.989***	0.481	-0.708**	-2.074***
	(0.238)	(0.310)	(0.333)	(0.302)
lnypcXforeign_born	0.152***	-0.0692	0.0962**	0.261***
	(0.0352)	(0.0447)	(0.0472)	(0.0410)
exit_1		-0.0583***	-0.0954***	-0.154***
		(0.0166)	(0.0186)	(0.0225)
exit_2	0.0670***		-0.0377**	0.0310*
	(0.0170)		(0.0151)	(0.0178)
exit_3	0.0578***	0.00754		-0.0172
	(0.0197)	(0.0164)		(0.0132)
exit_4	0.0902***	0.0426**	-0.0149	
	(0.0243)	(0.0200)	(0.0156)	
age	-0.0263***	-0.0157***	-0.0141***	-0.0130***
	(0.00239)	(0.00237)	(0.00219)	(0.00215)
age2	0.000391***	0.000279***	0.000262***	0.000261***
	(2.36e-05)	(2.30e-05)	(2.10e-05)	(2.06e-05)
female	0.0945***	0.0770***	0.127***	0.0827***
	(0.0134)	(0.0125)	(0.0116)	(0.0104)
children	0.0302***	0.00967	0.00903	0.00361
	(0.00687)	(0.00757)	(0.00801)	(0.00738)
adults	0.0325***	0.0280***	0.00150	0.0231***
	(0.00701)	(0.00704)	(0.00687)	(0.00725)
in_a_relationship	0.105***	0.154***	0.241***	0.209***
	(0.0216)	(0.0222)	(0.0201)	(0.0177)
divorced	-0.249***	-0.209***	-0.174***	-0.169***
	(0.0324)	(0.0335)	(0.0304)	(0.0265)
widowed	-0.117***	-0.139***	-0.0773**	-0.0869***
	(0.0366)	(0.0352)	(0.0315)	(0.0297)
unemployed	-0.589***	-0.486***	-0.411***	-0.460***
	(0.0204)	(0.0242)	(0.0251)	(0.0272)
satisfaction_health	0.405***	0.407***	0.404***	0.388***
	(0.00294)	(0.00282)	(0.00270)	(0.00248)
secondary	0.0650***	0.0161	-0.0188	-0.0361**
	(0.0150)	(0.0147)	(0.0146)	(0.0159)
higher	0.0336*	-0.0217	-0.0291*	-0.0415**
	(0.0198)	(0.0188)	(0.0172)	(0.0168)
Constant	1.663***	2.218***	1.943***	2.196***
	(0.127)	(0.151)	(0.148)	(0.130)
Observations	65866	64465	68709	78731
R-squared	0.279	0.278	0.277	0.275
Year FE	YES	YES	YES	YES

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Table 5: Panel regression by Quartile

	(1) Quartile 1	(2) Quartile 2	(3) Quartile 3	(4) Quartile 4
years_since_migration	-0.0155	-0.104***	0.0644*	-0.0472
	(0.0267)	(0.0309)	(0.0355)	(0.0424)
yearsXincome	-0.00744**	0.00733*	-0.0162***	0.00500
	(0.00367)	(0.00444)	(0.00499)	(0.00571)
current quartile	-0.0167	-0.0139	0.0402	0.110**
	(0.0300)	(0.0337)	(0.0420)	(0.0479)
lnypc	0.675***	0.215	0.721***	0.0388
	(0.0922)	(0.146)	(0.180)	(0.186)
children	0.00610	-0.0450*	0.0454	0.185***
	(0.0193)	(0.0244)	(0.0323)	(0.0460)
adults	-0.0131	0.0188	-0.00408	0.0648
	(0.0200)	(0.0225)	(0.0295)	(0.0406)
in_a_relationship	0.00877	0.417***	0.157	0.0186
	(0.0922)	(0.100)	(0.132)	(0.158)
divorced	-0.140	0.287*	-0.0354	-0.356*
	(0.132)	(0.166)	(0.182)	(0.200)
widowed	-0.326**	-0.267	-0.232	-0.185
	(0.158)	(0.187)	(0.240)	(0.282)
unemployed	-0.389***	-0.212***	-0.297***	-0.479***
	(0.0425)	(0.0533)	(0.0663)	(0.0905)
satisfaction_health	0.249***	0.256***	0.257***	0.267***
	(0.00775)	(0.00877)	(0.0108)	(0.0125)
secondary	-0.140**	-0.118*	-0.144	0.0831
	(0.0566)	(0.0714)	(0.1000)	(0.125)
higher	-0.0501	-0.160*	0.112	-0.187
	(0.0690)	(0.0861)	(0.120)	(0.141)
Constant	2.146***	4.751***	1.430	4.812***
	(0.626)	(0.944)	(1.169)	(1.281)
Observations	14638	9831	6927	4671
R-squared	0.119	0.152	0.142	0.157
Number of pid	2439	1438	1102	773
Year FE	YES	YES	YES	YES

Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1