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Are Migrants Going Up a Blind Alley? Economic Migration and Life Satisfaction around the World: Cross-National Evidence from Europe, North America and Australia

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Abstract Are migrants satisfied with their decision to move to another country? Research shows that the income-wellbeing relationship is weak in wealthy countries, usually countries of destination. Are then economic migrants mistaken? Employing data from the Gallup World Poll, a representative sample of the world population, we investigate whether a general pattern of association exists between income and the cognitive component of subjective wellbeing, and whether this pattern differs by immigration status in 16 high-income countries. In only a handful of countries do we find a distinctive immigrant advantage in translating income into higher life evaluation or life satisfaction: Australia, Belgium, the Netherlands, Portugal and Sweden. For immigrants in most of these countries, income increases cognitive wellbeing even in the fifth income quintile. Depending on the measure used, immigrants in Canada, Denmark, Finland, Italy and the US only have positive income-wellbeing associations at or below the third quintile. We take this as evidence that, among recent arrivals, income is positively associated with wellbeing up to the point in which non-pecuniary factors associated with long-term residence become dominant. We also find a number of "frustrated achievers" among the foreign born in the US, France and Finland. These immigrants report a negative association, in absolute value, between income and life satisfaction or life evaluation.

Keywords Life Satisfaction/Happiness · International migration · Income · Gallup World Poll

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1 Introduction

Are migrants satisfied with their decision to move to another country? The popular believe is that they are. This is especially assumed for economic migrants who are supposed to move voluntarily from poor origins to wealthier destinations seeking better opportunities for themselves and their families.

Evidence suggests that although people in wealthy countries are more satisfied with their lives than counterparts in less fortunate nations, the relationship is weak. Furthermore, income growth is not related to happiness in the long run (Easterlin 1974, 2005). And, at least in the US, there seems to be a satiation point at which more income does not translate into more joy, stress or sadness (Kahneman and Deaton 2010). Are therefore migrants who seek better economic conditions mistaken? Or is there a positive association between economic migration and life satisfaction/life evaluation?

We extend previous work by Bartram (2011), who observed that the association between income and life satisfaction was stronger in the US for immigrants than for natives. Employing representative samples of men and women in Europe, North America and Australia, we use the GALLUP World Poll to investigate whether the association between income and life evaluation/satisfaction is higher for migrants than for comparable natives of these high-income countries. The position in the income distribution is an indicator of the life cycle stage of a working-age individual. Therefore, we also examine the income-wellbeing association for migrants and native-born by income quintile to shed some light on the evolution of the income-wellbeing association as migrants assimilate to the native population.

1.1 Cognitive Subjective Well-Being, Income and Migration

Greater absolute wealth does not bring extra happiness (Easterlin 1974, 2005). Recent evidence from the United States shows that Americans are less happy than their parents despite substantial post-war economic growth in per capita income (Blanchflower and Oswald 2004). Similarly, Chinese people are as satisfied with their lives nowadays as they were before the enormous economic progress experienced in the last few decades (Brockmann et al. 2009). However, relative wealth does indeed contribute to individuals' well-being: better-off people are happier than poor counterparts (Diener and Biswas-Diener 2002; Cramm et al. 2010). Researchers have looked for an answer to this paradox and for the *recipe to happiness* for the last few decades, and although the literature offers a myriad of potential explanations, a satisfactory theory is still lacking.

A popular explanation of this puzzle is that people adapt to income gains and return to a baseline life satisfaction. A classical example is Brickman et al.'s (1978) study on 22 major lottery winners who were not happier than a control group of non-winners. More recent analysis of panel data shows that 65 % of the annual impact of income on happiness is lost over the following 4 years (Di Tella et al. 2007). Evidence suggests that economic growth and subjective well-being are correlated only until a certain point. Once a level of subsistence has been reached other aspects become more relevant to life satisfaction than economic growth. For instance, while long-term rural Thai immigrants were satisfied with the economic gain associated with their post-move employment, they were also dissatisfied with their new urban living environment (De Jong et al. 2002).

A complementary hypothesis is that the impact of economic gains on subjective well-being is mediated by the group one uses as referent to compare one's economic aspirations. Despite substantial income disparity between urban and rural China, rural households are

happier than their more affluent urban counterparts. While rural Chinese may compare their economic situation with that of their neighbors in the village, the happiness of their urban counterparts is mediated by their perception of economic unfairness in the city as well as by their opinion of an unjust national income distribution (Knight and Gunatilaka 2010a). A similar mechanism operates for immigrants who become *frustrated achievers* (Graham and Pettinato 2002) after a mismatch occurs between pre-migration expectations and post-migration experiences and foreign workers experience a decline in life satisfaction despite positive gains in income. For instance, despite higher mean income, rural–urban migrant households in China reported lower happiness than their rural counterparts. Evidence suggested that although rural Chinese immigrants had attained higher incomes working in the city, their reference group, and therefore their earning aspirations, had also changed post-migration and relative to the new surroundings they felt unsatisfied with their improved economic situation (Knight and Gunatilaka 2010b).

Instead of focusing on internal migration, other studies have focused on international migrants, employing natives as the comparison group, to gauge the post-migration happiness associated with economic gain. In Europe, Eastern European immigrants living in 14 different countries of Western Europe reported lower satisfaction with life than comparable natives. In contrast, they were more satisfied with the societal conditions of the recipient society than their native counterparts. As with the rural–urban migration literature described above, this apparent paradox was explained by which group the migrants used as referent to compare their pre-migration expectations. Hence, Eastern European immigrants used natives as the referent group to evaluate their life as a whole, while they used their home country to determine their satisfaction with the societal conditions of the recipient society (Baltatescu 2007).

In the United States, Massey and Akresh (2006) found that, even after adjusting for difficulty of transferring credentials from abroad, educated immigrants were less satisfied with their lives than uneducated immigrant peers. The argument was that well-educated immigrants hold high expectations on their lives in the US and experience post-migration discrimination and isolation which propelled them to look at other destinations where they felt they had better options (Massey and Akresh 2006).

This evidence suggests that migration does not bring extra happiness, even after post-migration economics gains. However, the role of economic gain on immigrants' well-being was not directly tested in the above studies. Bartram (2011) remedies this gap in the literature and employs data from the 1995 wave of the World Values Survey to examine whether the association between absolute income and happiness was stronger for economic migrants than for comparable native-born individuals in the United States.

Results showed that adjusting for a series of demographic and socioeconomic characteristics, life satisfaction for immigrants in the US did stem from their income to a higher degree than for natives. The relationship between income and happiness was stronger for immigrants than for natives, especially for immigrants coming from poorer countries. This suggests that although immigrants gained more satisfaction with life from income than natives, the gain was not enough to overcome additional challenges such as discrimination or being apart from one's family (Bartram 2011).

Economic theory suggests that the decision to migrate is made after assuming that the utility of living in the destination country will be higher than the utility of living in the home country net of migration costs (Sjaastad 1962). In addition, this utility maximization framework predominantly features income as a driver of migration. And, even when the income term is weighted, this weight is frequently large. The idea that the income-well-being association for immigrants is as weak as it is for natives is not consistent with the way we think of the migration decision-making.

The aim of our study is to assess the extent to which the income-wellbeing association differs by nativity status (immigrants versus natives). We extend Bartams' study (2011) to investigate whether immigrants in Europe, North America and Australia evaluate their life in a higher ranking and express higher satisfaction with life than comparable natives as income increases. We also investigate if the differential contribution of income on subjective wellbeing by nativity status varies throughout the income distribution.

2 Data

Data come from the Gallup World Poll (GWP), which began in 2005 and collected data annually from representative samples in 150 countries,—representing 95 % of the world's adult population. The survey has annually sampled around 1,000 individuals from each country, although not all countries were sampled every year. The target population for the Poll was the entire civilian, non-institutionalized population, aged 15 and older. Gallup uses random route procedures to select sampled households. Unless an outright refusal occurs, interviewers make up to three attempts to survey the sampled household. To increase the probability of contact and completion, interviewers make attempts at different times of the day, and when possible, on different days. If the interviewer cannot obtain an interview with the originally sampled household, he or she uses a simple substitution method (Gallup 2012). These intense tracking efforts ensure high quality data and reduce the likelihood that any originally sampled household is missed.

Since 2006 the GWP has routinely included a battery of questions on the cognitive components of subjective well-being (SWB), such as global life evaluation and life satisfaction. Thus, we used data for the 2006–2011 (the last year available) period.

Table 1 displays the list of countries in our sample, the number of observations for each, the years for which all variables of interest were included in each country's questionnaire,

Table 1 Country list and number of observations

Country	Years with available data	N. obs	% Immigrants
Australia	2007, 2008, 2010, 2011	3,371	24.0
Austria	2008, 2010, 2011	2,699	7.3
Belgium	2007, 2008, 2010, 2011	1,526	12.1
Canada	2007–2011	3,989	18.0
Denmark	2005, 2007–2011	4,919	4.5
Finland	2008, 2010, 2011	2,582	2.8
France	2005, 2008–2011	3,841	8.9
Greece	2005, 2007, 2008, 2010, 2011	3,696	10.7
Ireland	2008–2011	2,416	15.9
Italy	2005, 2007–2011	2,553	4.9
Netherlands	2007, 2008, 2010, 2011	2,595	6.5
Portugal	2008, 2010, 2011	2,232	6.3
Spain	2007–2011	3,233	11.7
Sweden	2007–2011	3,968	8.0
United Kingdom	2008–2011	4,368	9.5
United States	2006–2011	5,206	5.8

as well the fraction of immigrants surveyed in each country. Although the Gallup World Poll is nationally representative, it has not been specifically designed to capture the immigrant subpopulations of each country. In particular, while for some countries the proportion of immigrants in the GWP is very similar to that officially reported by the World Bank's 2011 Migration and Remittances Factbook (Ratha et al. 2010), for others it is not. The percent differences between the immigration rates from both data sets ranges from 3 % in Australia to 58 % in the US (the official immigration rate being 14 % while Gallup's is 6 %). This lack of representativeness should not affect our results as long as the mechanisms for selection into the sample are not systematically related to the error term in our empirical specification (Heckman 1979). Given the random sampling design of the GWP, we are confident that although the immigrants in the Gallup World Poll were more elusive than natives, they should not be consistently different than those in the countries' populations as a whole.

We follow David Bartram's 2011 study in our empirical specification, by including interaction terms between income and immigration status in a regression where life evaluation and life satisfaction are the respective dependent variables. We depart from his analyses in a number of ways. Most evidently, we use data from the Gallup World Poll

Table 2 Summary statistics by foreign born status

Variable	Natives			Foreign born		
	Average (1)	Min (2)	Max (3)	Average (4)	Min (5)	Max (6)
Mean GLE	7.09 (1.83)	5.36 (2.03)	7.81 (1.50)	6.81 (2.00)	5.51 (2.22)	7.72 (1.48)
Mean LS	7.54 (1.72)	5.68 (2.03)	8.17 (1.38)	7.52 (1.76)	6.64 (1.84)	8.47 (1.31)
Income	42,659 (37,071)	22,342 (15,889)	63,227 (57,945)	40,519 (34,949)	18,433 (11,123)	65,875 (48,410)
Mean age	50.94 (16.85)	47.30 (17.11)	53.53 (17.59)	46.04 (16.35)	37.16 (11.70)	53.80 (14.22)
% Female	56.85 (49.53)	52.64 (49.95)	61.11 (48.76)	56.48 (49.59)	51.02 (50.57)	71.11 (45.84)
% In a union	61.06 (48.76)	52.05 (49.97)	64.98 (47.71)	62.21 (48.50)	54.71 (49.93)	69.39 (46.57)
% Divorced	9.27 (29.00)	4.32 (20.33)	13.81 (34.51)	10.74 (30.97)	2.04 (14.29)	18.95 (39.29)
% Widowed	9.42 (29.21)	6.43 (24.53)	13.07 (33.73)	6.78 (25.15)	2.22 (14.91)	11.29 (31.78)
% Employed	56.02 (49.63)	45.01 (49.77)	65.21 (47.65)	60.07 (48.99)	32.69 (47.37)	87.10 (34.08)
Average household size	2.22 (1.11)	1.85 (0.82)	2.64 (1.16)	2.32 (1.19)	1.90 (0.84)	2.90 (1.24)
% Religious	41.27 (49.23)	15.39 (36.09)	72.68 (44.57)	48.37 (49.98)	24.49 (43.45)	73.97 (43.97)
% Satisfied with their personal health	83.10 (37.48)	75.13 (43.24)	88.15 (32.33)	84.75 (35.96)	73.39 (44.37)	93.67 (24.50)
N. obs	46,232	1,331	4,691	4,772	67	719

Standard errors in parentheses

rather than from the World Values Survey (WVS). The main advantage of using the GWP is that the identifying question on foreign-born status was consistently asked in most of these countries throughout the span of the survey.[1] This substantially increases the sample size through repeated cross sections and gives us enough power to look at a myriad of non-linear interactions that would not be otherwise supported.

Secondly, while Bartram limits his analysis only to the US, we focus on 16 countries of immigration: the original 15 countries that formed the European Union except Luxemburg (not sampled in the GWP) and Germany (which did not include immigration status and life satisfaction simultaneously in the questionnaires), plus the United States, Canada and Australia. One of Bartram's main concerns with this type of analysis is that composition effects may limit the comparability of the results (i.e. immigrants to the US are very different from immigrants in the EU), but it is precisely these differences that we want to investigate. To account for the strong country fixed effects, we run country-specific regressions, taking advantage of the multiple cross-sections available in the GWP.

2.1 Well-Being Measures

Finally, while Bartram's main dependent variable is life satisfaction, we analyze two measures of (cognitive) well-being available from the survey: global life evaluation (GLE) and life satisfaction (LS). The GLE measure asks respondents to evaluate their present life in a ladder scale from 0 to 10, with 0 representing the worst possible life and 10 the best possible life. The GLE question was asked in all rounds of the GWP. The LS measure asks for responses to the question "All things considered, how satisfied are you with your life as a whole these days?" also ranging from 0 to 10. While GLE has a tighter relationship with income than LS and it is therefore preferred as a cognitive measure of subjective well-being, LS is more widely used and provides more comparability among studies (Helliwell et al. 2010). The Gallup World Poll only included LS in the 2007 and 2008 rounds, precisely when unemployment—one of the crucial determinants of well-being—was omitted. In this study, we focus on GLE to take advantage of the repeated cross-sections available in the Gallup Poll data. We also provide results based on the LS measure of well-being for comparability purposes. However, we do not anticipate differences in the results because a recent study with the same data set by Helliwell et al. (2010) showed that both measures show very similar correlations with different factors related to well-being. The item-level response rates for GLE and LS are 99 % both for immigrants and natives, except in the United Kingdom, where immigrants are less likely to report GLE (83 % response rate versus 89 % for natives).

2.2 Income and Immigration Status

The main explanatory variables are annual household income (in logarithm scale) and nativity status. Depending on the country, income is asked as a continuous variable, or as a series of income brackets. In the second case, we converted household income into a continuous variable by taking the midpoint of the bracket. The continuous measure in local currency was then divided by the 2009 US inflation-adjusted PPP using the World Bank's Global Purchasing Power Parities and Real Expenditures 2005 International Comparison Program. This income variable is comparable across all communities, local regions,

[1] The World Values Survey, conversely, included this question in 1995 but discontinued it until 2010, when it was brought back.

countries and global regions. This measure has a Pearson Correlation of 0.94 with the World Bank estimate of per-capita GDP (PPP) (Gallup 2012).

We had a substantial non-response rate for the income variable (23 % on average). Natives and immigrants were equally represented in the non-responses, with the exception of Belgium, Portugal, Spain and the UK where immigrants were more likely to report their income. We dropped the observations with missing values from the analysis. We performed sensitivity analyses and the results were robust to imputing the missing income observations using a Markov Chain Monte Carlo method for multiple imputation separately for immigrants and natives.

Nativity status is coded as a dummy variable that takes the value of one if the respondent answered "no" to the question "*were you born in this country?*" and zero otherwise. Since we do not have information on year of migration, we will be comparing recent arrivals with individuals who may have become citizens a long time ago. In this sense, we refer to immigrants and foreign-born indistinguishably throughout the text.

2.3 Socioeconomic Covariates

The remaining variables considered in the analyses are the standard determinants of subjective well-being reported in the literature and, most importantly, included in Bartram (2011)'s specification. We control for age and age squared to take into account the quadratic relationship between age and subjective well-being. The dummy gender takes the value one if the respondent is a woman and zero if it is a man. Marital status is coded as a series of binary indicators identifying individuals who are single, in a union (married or domestic partnership), divorced or widowed from responses to the question "*what is your current marital status?*" We follow Bartram in including a dummy for unemployment status instead of distinguishing between students, retirees, unemployed, part-time and full-time employees. Except for the unemployment question in the United Kingdom, where immigrants were less likely to report their immigration status, immigrants and natives are equally represented in the responses for these questions, for an average response rate of almost 100 %.

We must depart from Bartram in the specification of three covariates. While he includes a ten-point rating of the importance of God in the respondents' life, the analogous question in the GWP is "*Is religion an important part of your daily life?*", which we coded as one if the respondent answered "yes" and zero otherwise. While he controls for health status using a five-point rating of the respondent's physical health, the GWP asks "*Are you satisfied or dissatisfied with your personal health?*" which we coded as one if the respondent answered "*satisfied*" and zero if "*dissatisfied*". Finally, Bartram's study included indicators for the number of children in the household, but in the GWP we only have a measure of household size, corresponding to the response to the question: *"Including yourself, how many people who are residents of [country], age 15 or over, currently live in this household?"* Response rates for all three questions average 96 %, with immigrants in the UK less likely to discuss religiosity and health, and immigrants in Greece and Spain more likely to respond to household size inquiries.

Due to data limitations there are a number of variables that have been traditionally used to assess immigrant well-being and that we fail to account for (i.e. dominant language proficiency, time since arrival, or social capital networks) which can affect subjective wellbeing and income-generating mechanisms simultaneously (Amit 2010; Neto 1995). In addition, we were not able to follow individuals over time and we lacked an instrument to assign nativity status randomly in the population. Thus, in the analysis that follows we

do not speak of causality but of positive and negative income-subjective wellbeing associations.

The values of the wellbeing variables as well as the covariates used in the regression analysis are summarized in Table 2. We report the means for the pooled sample along with the minimum and maximum country-specific values. Natives are slightly more satisfied with life, older, wealthier and more likely to be widowed. The foreign born are more likely to be in a union, divorced, more religious, and more likely to report satisfaction with personal health. Furthermore, while the minimum and maximums do not substantially vary by immigration status, columns 2, 3, 5 and 6 show that there are substantial differences in all the variables being considered *across countries*.

It is a sensible question to wonder about the comparability of the variables listed in Table 2 across countries. The survey is designed to maintain international comparability of all questions on socio-economic status. The literature has not found evidence of translation or cultural biases across countries in survey questions about well-being either, even if these might be more prone to linguistic susceptibilities or social conventions (Ouweneel and Veenhoven 1991; Diener et al. 1995; Ball and Chernova 2008).

3 Empirical Strategy

3.1 Linear Associations With Income

For each country, *c,* we estimate the associations between the two dependent variables (Y = {GLE, LS}), income and nativity status using the following specification:

$$Y_{ic} = a + \beta_c Inc_{ic} + \gamma_c FB_{ic} + \delta_c (Inc_{ic} * FB_{ic}) + \theta_c X_{ic} + \varepsilon_{ic}. \quad (1)$$

For each individual *i, Inc* is the natural logarithm of monthly household income, and *FB* takes the value of one if the respondent answered "no" to the question "*were you born in this country?*" and zero otherwise. *X* represents a vector of time effects and covariates that control for age, sex, marital status, religiosity, personal health and employment status.

We use ordinary least-square (OLS) regression analysis to estimate the coefficients in (1), arguing that the 11-item SWB questions offer a good approximation of the latent continuous variable such that the assumptions of OLS are met. Although OLS is not the best fit for ordinal data, it is more appropriate for an 11-item variable than for an ordinal variable with fewer categories. Blanchflower and Oswald (2004) find that the results from an OLS model are similar to those from an ordered logit model for a three-category response variable on happiness. A similar finding is reported in Bartram (2011), where the life satisfaction variable takes on 10 possible values and it is fitted both through OLS and a generalized ordered logit model.

3.2 Income-Wellbeing Associations by Wellbeing Level

Previous research shows that uncertainty in migration decision-making may lead to an overestimation of the returns to migration (Saarela and Rooth 2012). Immigrants with mismatched outcomes and expectations may decide to leave the country of destination. However, due to the cross-sectional nature of the data, we do not have any information on the income-wellbeing association of those foreign born that failed to remain in the country of destination. If the association differed from that of the average individual in the sample, our results could be seriously biased. The literature has been silent in this aspect, and we

cannot a priori speculate on the direction of that bias. But, if immigrants incorporate these information failures into their SWB formation and make the decisions to return- or onward-migrate after their SWB has fallen below a certain threshold, those in the lowest part of the SWB distribution should reflect the behavior of returning migrants just before departure. In turn, this should give us a sense of the magnitude and direction of the bias brought by the selection into staying in the country of destination.

Thus, we extend (1) to study the income-wellbeing association for individuals with different levels of SWB: 0–3, 4–7 and 8–10. We are mostly interested in the associations at the lower end of the spectrum, hoping that this would mimic the behavior of unhappy migrants who 'failed' to assimilate, and return- or onward-migrated as consequence.

3.3 Non-Linear Associations With Income

We also extend (1) to examine the income-wellbeing association for individuals at different parts of the income distribution. For comparability purposes we calculate income quintiles within each country and re-estimate (1) stratified by income quintile.

Because the position in the income distribution is highly positively correlated with years since immigration (Borjas 1994) we take advantage of this exercise to proxy recent arrivals as immigrants in the first and second income quintiles and long-term residents as immigrants in the third, fourth and fifth quintiles. Marked differences in behaviors across these two groups should shed some light on the influence of time in country of destination on the income-subjective well-being association.

4 Results

4.1 Pooled Sample Analysis

Table 3 shows the results when we pool all the countries into a single sample and include country and time fixed effects. Keeping income and country of birth constant, we find that subjective well-being follows a quadratic association with age, and that women, those in a union and those with better health (or reporting so) are more likely to report higher levels of subjective well-being. We also find that those who are divorced or widowed report lower subjective well-being. We find these coefficients both for GLE and LS. Furthermore, when the dependent variable is GLE, we also find that unemployment is strongly negatively associated with subjective well-being. And when we model life satisfaction, we find that those who are more religious are more likely to be satisfied with their lives.

Income is significantly and positively associated with subjective well-being. However, doubling the median annual household income ($33,000) increases GLE by 0.22 points ([ln(66,000) − ln(33,000)]*0.332) and LS by 0.12 points. In other words, the association between subjective well-being and income is very small. This is especially true if we compare the income coefficient to any of the other socio-economic associations. This point estimate ($\beta = 0.185$) is actually very similar to Bartram's (0.198).

Although the point estimates are supportive of our hypothesis, the interaction coefficients (δ) are not significant in any of the regressions. At least in the pooled sample, there is no evidence that "money buys happiness" disproportionately for the foreign born.

Table 3 OLS regression results for determinants of global life evaluation and life satisfaction, pooled sample

	GLE (1)	LS (2)
Ln(income)	0.332***	0.185***
	(0.022)	(0.026)
=1 if foreign born	−0.458	−1.257
	(0.547)	(0.794)
Ln(income) × (indicator foreign born)	0.016	0.119
	(0.052)	(0.075)
Age	−0.041***	−0.036***
	(0.004)	(0.006)
Age^2	0.0004***	0.0004***
	(0)	(0)
=1 if female	0.215***	0.164***
	(0.025)	(0.035)
=1 if in a union	0.065*	0.282***
	(0.036)	(0.052)
=1 if divorced	−0.216***	−0.176**
	(0.06)	(0.084)
=1 if widowed	−0.407***	−0.237**
	(0.068)	(0.095)
Household size	0.003	−0.005
	(0.013)	(0.018)
=1 if unemployed	−0.776***	
	(0.064)	
=if religious	0.023	0.212***
	(0.028)	(0.04)
=if satisfied with personal health	1.219***	1.067***
	(0.038)	(0.056)
Constant	3.327***	5.056***
	(0.238)	(0.297)
N. observations	51,004	13,447

*** p value < 0.001; ** $p < 0.05$; * $p < 0.1$. Robust standard errors in parenthesis

The regressions control for a full set of country and time fixed effects (not shown)

4.2 Country-Specific Analyses

To shed more light on this issue we turn to the country-specific analysis. Instead of showing regression outputs for each country, we show the coefficients corresponding to Ln(income) (representing the association for natives, with solid bars) and the interaction term (representing the additional advantage of foreign born over that of natives, with shallow bars) together with their 95 % confidence intervals in Figs. 1 and 2.

Figure 1 presents the estimates when the dependent variable is GLE. All countries show positive and significant associations with income at the 10 % confidence level. The associations range from 0.09 (Denmark) to 0.80 (Spain). Consistent with the results for the pooled sample, however, only three out of the 17 countries show positive and significant interactions between logged income and foreign born status: Belgium ($\delta = 0.46$), Netherlands ($\delta = 0.47$) and Portugal ($\delta = 0.84$). In all cases, they more than double the

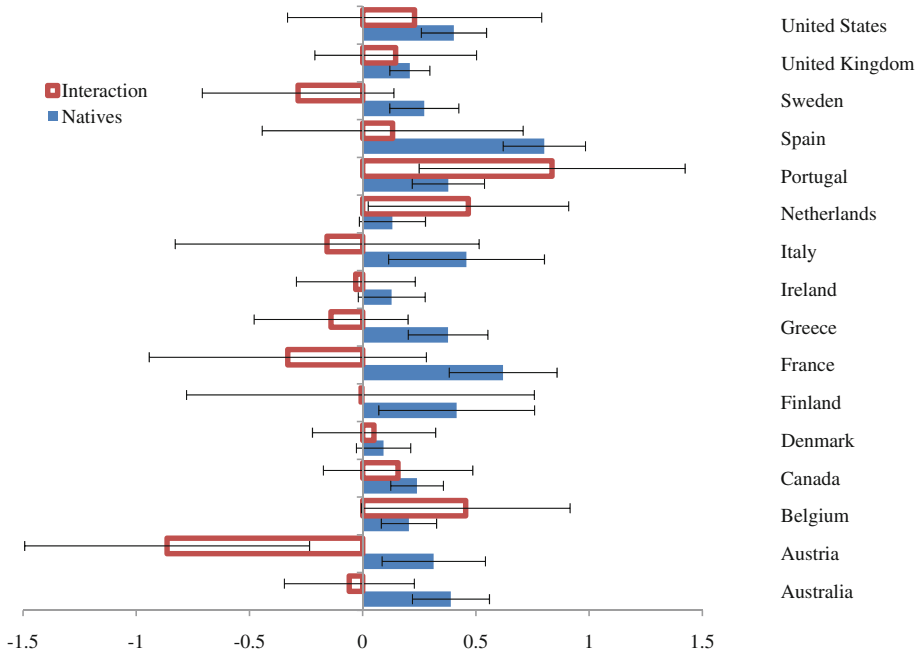

Fig. 1 Income-GLE association by immigration status

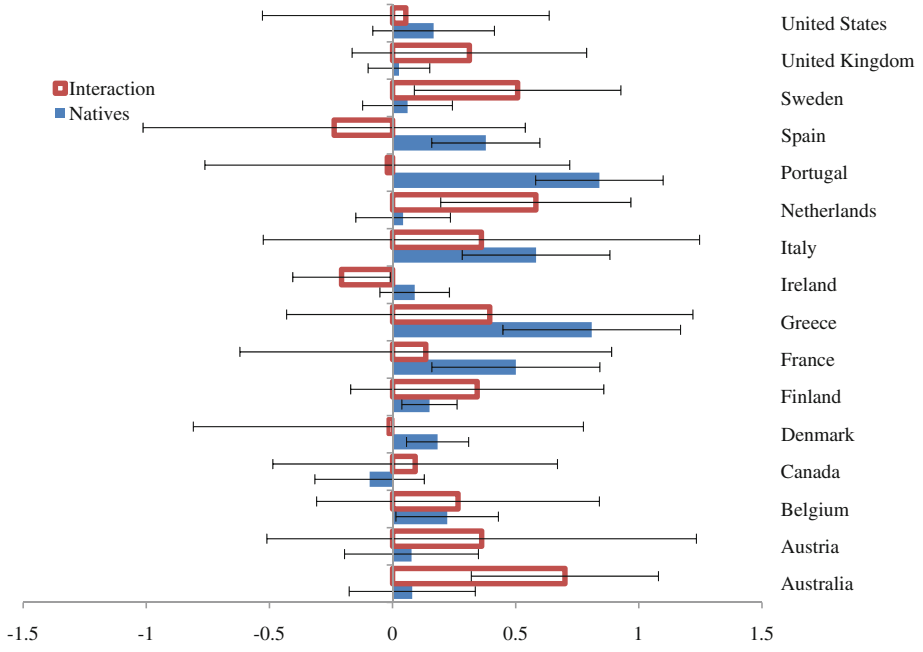

Fig. 2 Income-LS association by immigration status

association for natives. Interestingly, Austria shows a large negative interaction coefficient ($\delta = -0.86$) (more than twice as large as that of the natives ($\beta = 0.31$)). Therefore, doubling the median Austrian income among the foreign-born (US$28,000) actually reduces global life evaluation by 0.4 points in the GLE scale (0.31*[ln(56,000) − ln(28,000)] + (−0.86)* [ln(56,000) − ln(28,000)]).

The results are very similar when we look at the results for LS, displayed in Fig. 2. Again all countries (except Canada) exhibit positive associations between income and LS, although only half of them are significant at the 90 % confidence level. The fact that LS is not as strongly correlated with income as GLE is has been extensively discussed elsewhere (Helliwell et al. 2010). In terms of comparability with Bartram's results for the US, it is important to notice that, although not statistically significant, we find the US logged income coefficient to be 0.167, very similar to Bartram's 0.198.

If we focus on the interaction term for the LS models, again, only three out of the 17 countries have significant and positive interactions with income: Sweden ($\delta = 0.51$), the Netherlands ($\delta = 0.58$) and Australia ($\delta = 0.7$). The foreign-born in Ireland have a negative income-LS association, with an interaction term that is twice as large in absolute value as that of the natives ($\delta = 0.2$; $\beta = 0.1$), although only statistically significant at the 90 %.

These analyses suggest that Bartram's result of a stronger income-LS association for migrants in the US might be quite unique. Not only do we not find that migrants are better able than natives to translate income into life evaluation/satisfaction globally, we do not find this pattern to hold for the US sample of the Gallup World Poll either.

4.3 US-Specific Analyses

One possible explanation for these conflicting results might be different sampling populations across the surveys. Table 4 reproduces Bartram's table of descriptive statistics together with the descriptive statistics for the US sample in the Gallup World Poll 2006–2011. The samples look remarkably similar. The proportion of foreign born sampled was 7.8 % in the WVS and 5.4 % in the GWP; not different enough to generate substantially different standard errors. One of the main differences rests in the annual household income: while the WVS average is $39,416, in the GWP this is $61,428. When we compare these numbers with those from the US Census Bureau, we get that the mean annual household income in current dollars in 1998 was $51,855, while it was $67,645 for the period 2006–2010 (US Census Bureau 2012). It seems that the GWP sample has a more accurate approximation to household income than Bartram's, implying that the 0.56 immigrant advantage he finds is likely biased downwards due to measurement error. In essence, this does not explain the large standard errors we find in our specification.

Our next step is to look for a trend in the coefficient on the interaction term. Bartram uses data from the year 1995, which was before the 1996 Illegal Immigration Reform and Immigrant Responsibility Act. It would not be unreasonable to think that immigrants would find it harder to gain increases in happiness through income as regulations became tougher. If this were the case, we should observe either a declining trend in the immigrants' advantage to associate money with wellbeing or, at least, a consistent set of insignificant coefficients. Bartram studies the association between income and LS, but as we already mentioned this variable was only asked in the GWP US sample in 2007. We maintain our US life satisfaction interaction term's point estimate and 95 % confidence interval (95 % CI) as reference values ($\delta = 0.05$; 95 % CI: −0.53–0.64) but we focus instead on the Global Life Evaluation question, which is a similar construct and is available over time.

Table 4 Descriptive statistics for US samples in WVS and WGP

	World Values Survey 1995[a]		World Gallup Poll 2006–2011	
	Natives	Immigrants	Natives	Immigrants
Mean global life evaluation			7.34	6.99
Mean life satisfaction	7.68	7.46	7.85	7.74
Mean income	39,158	42,459	61,302	64,152
% single	14.9	15.8	21.9	23.77
% married/cohabitating	64.8	71.7	57.9	59.23
% divorced/separated	10.2	5.8	11.5	11.9
% widowed	10.0	6.7	8.7	5.1
% no children	21.7	30.0		
% one child	13.1	13.3		
% two or more children	65.2	56.7		
Household size			2.08	2.24
Mean age	48.9	41.2	52.0	46.3
% unemployed	5.9	10.0	5.7	7.6
Mean importance of god/religiosity	8.2	8.0	66.2	56.3
Mean health score/satisfaction with personal health	1.9	1.8	81.7	83.7
N. observations	1,414	120	5,850	336

[a] Extracted from Bartam (2011), p. 64

Figure 3 shows the interaction's point estimates and confidence intervals for the year-specific analyses of models for GLE. Our hypothesis of a trend is not supported by the data. If anything, it seems to display a zigzag pattern, with a negative interaction coefficient followed by a positive one. Furthermore, out of the six estimates, three are marginally significant (at the 10 % level), with two negative (years 2006 and 2008) and one positive (year 2010).

We take this analysis as evidence that at least for the data from the GWP, a survey highly consistent in terms of questionnaire and sampling frame over the years, we cannot argue for an immigrant advantage in the income-wellbeing relationship in the US simply based on a random cross-section. Pooling the data from multiple cross-sections may smooth out some of the noise, allowing for a more precise estimate of the association. Unfortunately, the question enabling the comparison between immigrants and natives has

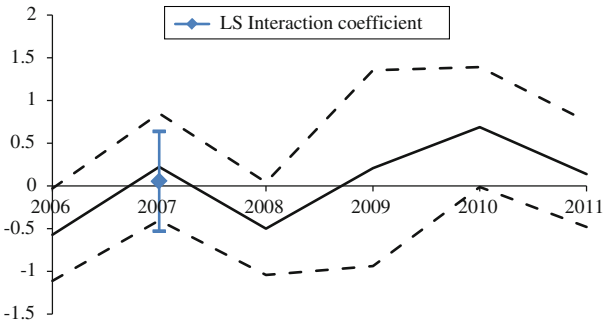

Fig. 3 Interaction coefficients for Global Life Evaluation, United States 2006–2011

not been consistently included in the WVS and estimates over time of the interaction coefficients are not possible. We fail to replicate Bartram's findings with our data.

4.4 Associations by Wellbeing Level

A serious concern for the validity of our estimates is the fact that the GWP sample is composed of migrants *selected* into staying in the country. We present here the results disaggregated by GLE and LS level, and we argue that the behavior of those in the lower end of the SWB distribution reflects that of the foreign-born who out-migrated. This assumption is particularly sensible, in light of the large literature linking poor labor market outcomes and economic wellbeing to return migration (Saarela and Rooth 2012) and to poor subjective wellbeing (Hayo and Seifert 2003; Helliwell et al. 2010).

Figure 4 shows the country-specific significant interaction coefficients (as in the third line of Table 3) for three groups: Unhappy (0–3 SWB), happy (4–7 SWB) and very happy (8–10). Happy and very happy individuals tend to have coefficients centered on zero. It does not look like positive selection of out-migrants is affecting our results. Conversely, unhappy individuals tend to have *negative* income-wellbeing associations. Maybe the inability to fit the standard definition of an "economic migrant" makes them more prone to leave.

If anything, the estimates from the preceding section might be biased upwards. We did not find negative selection effects for Portugal (GLE), Belgium (GLE) and Australia (LS), three of the countries for which there is an immigrant advantage. On the other hand, the insignificant interaction coefficients, which constitute the bulk of our findings, may mask negative income-wellbeing associations, much like those for Austria and Ireland.

4.5 Non-linear Associations With Income

As the findings in the previous section suggest, immigrants do not seem to be better able to turn income into well-being than natives, except in a handful of countries. Furthermore, immigrants in Austria and Ireland derive not only less well-being from income than the native born but, in fact, less well-being from income in absolute terms. This last result, in particular, seems to contradict standard findings in the migration literature: migrants should be positively selected in terms of a wide range of characteristics, from health, to education, to willingness to work (Constant and Massey 2003; Palloni and Arias 2004). It is only natural that they are also better able to use their income for well-being gains.

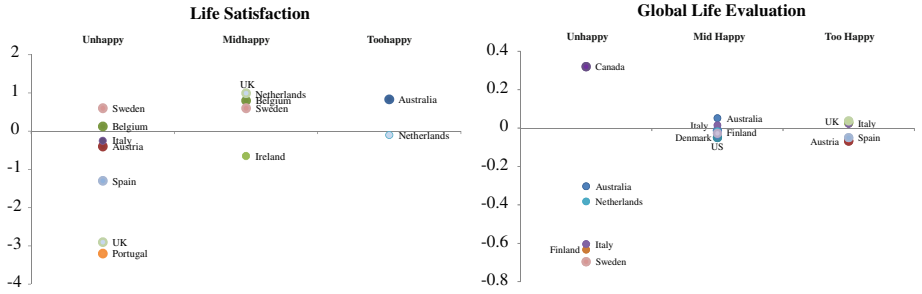

Fig. 4 Foreign-born interactions in the income-wellbeing association by wellbeing level

One possible explanation for the limited number of countries in which we find an SWB-income immigrant advantage is the heterogeneity of the immigrant category in the GWP. While we can only distinguish immigrants by whether their country of birth was the surveyed country or not, immigrants compose a much more diverse group than that captured by this dichotomization. For example, Bartram (2011) shows that, in the US, only immigrants from Latin America, Asia and Africa have a larger income-wellbeing association than natives, while those from wealthier regions do not. This is expected, as immigrants from poorer countries fit better the idea of the "economic migrant", benefitting more from higher income. If the GWP sampled immigrants from wealthy countries disproportionately, we may find our results biased downward because of this composition effect.

There are other ways of grouping the immigrant population that would also give rise to opposite directions in the income-wellbeing association, such that oversampling of the groups with null or negative associations would produce our lack of positive interaction coefficients. Non-labor migrants or individuals displaced by wars, natural disasters or crises, for instance, may not be particularly skilled at turning income into happiness.

A particular example of heterogeneity within the immigrant group was pointed early on by Piore (1979), who discusses how the reference group immigrants use to base their income achievements change over the life course. Recent arrivals compare themselves with those left behind, while long-term immigrants tend to measure themselves against the income increases of the native population. In lieu of looking at the income-wellbeing association by time since arrival—a variable we do not have—, we make use of the well-known fact that income monotonously increases over an individual's life course up until retirement age (Attanasio and Browning 1995; Hugget 1996; Browning and Crossley 2001). Borjas (1994) has shown that this is the case for immigrants as well.

In what follows, we replicate the above analysis by income quintiles. We hypothesize that immigrants at the bottom of the income distribution are more likely to be recent arrivals, likely to compare their income gains to those of the countries of origin and thus, with higher well-being improvements from income than wealthier migrants and natives.

Table 5 displays the coefficients of interest from estimating Eq. (1) stratified by income quintile in the pooled sample of countries. There is no income-SWB association neither for natives nor immigrants in the lowest end of the income distribution. This goes against the idea that well-being returns to income only exist for those below a subsistence level (Clark et al. 2008). In effect, for the pooled sample and when the well-being measure is GLE we do not find a satiation point: while there seem to be diminishing GLE returns to income in the upper tail, these are still highly positive and significant. In fact, for those in the fourth quintile, doubling their income almost increases GLE by one point. We do find that income does not buy improvements in life satisfaction further than the second quintile, locating the global satiation point for LS around $27,000 international dollars (the minimum income for those in the third quintile). In this global sample we do not find differential income-SWB behaviors for the foreign-born.

Figures 5 (GLE) and 6 (LS) present the quintile-specific analyses disaggregated by country. Due to the large number of parameters, we only present the income-wellbeing associations that were significant at the 90 % confidence interval. Instead of showing the coefficients, we actually show the association, represented by the income coefficient for the natives and by the sum of the income and the interaction coefficients for the immigrants. If the interaction coefficient is insignificant the association for immigrants is displayed next to that of the natives as a bar of the same height (i.e. Canada in Fig. 5). Because we are interested in points at which income no longer increases happiness, for each country we

Table 5 OLS regression results for income and immigration status by income quintile global life evaluation and life satisfaction, pooled sample

	GLE	LS
1st quintile		
Ln(income)	0.06	−0.016
	(0.059)	(0.086)
Ln(income) × (indicator foreign born)	0.177	0.305
	(0.206)	(0.29)
=1 if foreign born	−1.826	−3.057
	(1.906)	(2.659)
2nd quintile		
Ln(income)	0.466**	0.754***
	(0.227)	(0.287)
Ln(income) × (Indicator Foreign Born)	0.021	−0.314
	(0.781)	(0.876)
=1 if foreign born	−0.557	3.302
	(7.761)	(8.693)
3rd quintile		
Ln(income)	0.282	0.262
	(0.221)	(0.302)
Ln(income) × (indicator foreign born)	0.699	2.376
	(0.804)	(1.662)
=1 if foreign born	−7.532	−25.04
	(8.354)	(17.412)
4th quintile		
Ln(income)	0.795***	−0.022
	(0.186)	(0.262)
Ln(income) × (indicator foreign born)	−0.711	0.444
	(0.582)	(1.037)
=1 if foreign born	7.441	−4.8
	(6.305)	(11.196)
5th quintile		
Ln(income)	0.407***	0.076
	(0.075)	(0.12)
Ln(income) × (indicator foreign born)	0.086	0.322
	(0.259)	(0.302)
=1 if foreign born	−1.269	−3.416
	(2.961)	(3.464)

Weighted regressions. Robust standard errors in parenthesis. *** p value < 0.001; ** $p < 0.05$; * $p < 0.1$

Both regressions include controls for age, age squared, indicators for sex, marital status, religiosity, household size, reported satisfaction with personal health as well as time and country fixed effects

show the largest quintile for which the association is significant. We start with the first quintile to the left of the figures and progress towards the fifth quintile to the right. For instance, the GLE regression for the US only yielded significant coefficient for natives in the fourth and fifth quintile and so we present only the fifth quintile estimates both for natives (solid bars) and immigrants (same height, clear bars).

Except for Australia, Denmark, Greece and Sweden, all countries present a positive native income-GLE association in at least one income quintile. Since we are running each

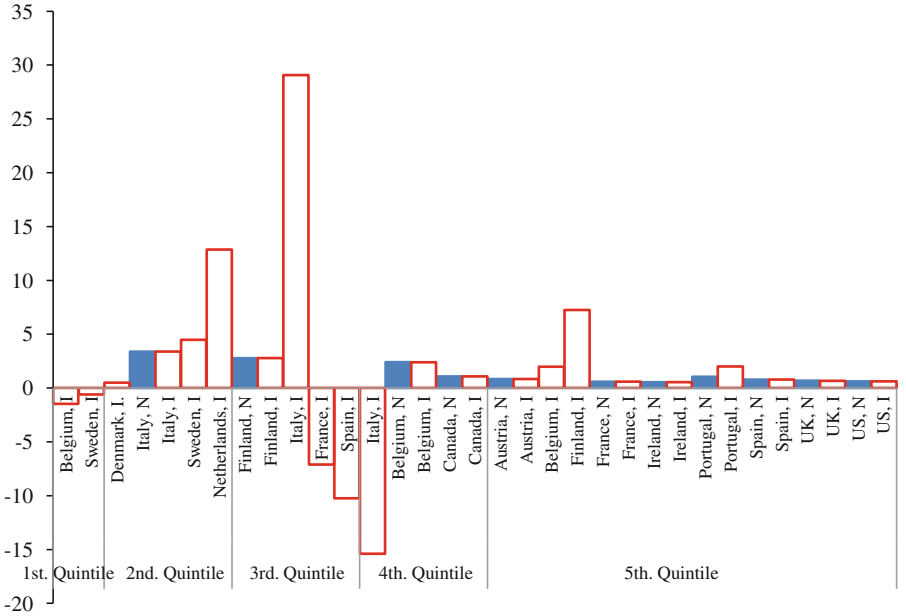

Fig. 5 OLS regression results by income quintile, Global Life Evaluation. *Notes*: *Solid bars* correspond to natives. *Clear bars* correspond to immigrants

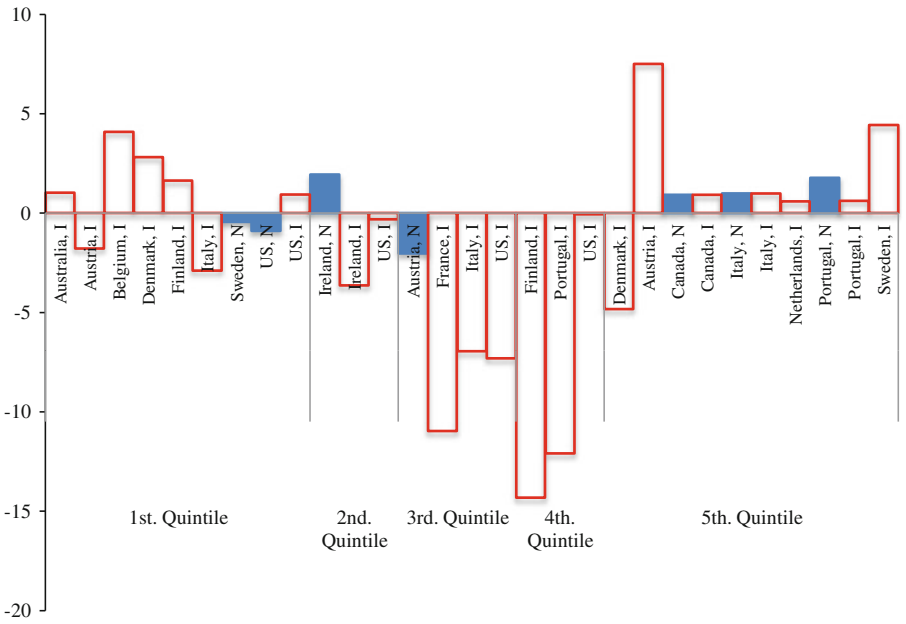

Fig. 6 OLS regression results by income quintile, Life Satisfaction. *Notes*: *Solid bars* correspond to natives. *Clear bars* correspond to immigrants

country-quintile analysis separately, we may not have enough power to find associations that are too small. These four countries have some of the lowest income coefficients in the quintile-pooled samples: from 0.09 in Denmark to 0.38 in Greece.

We find seven out of the 16 countries with positive and significant associations between income and GLE for natives well into the fifth quintile: US ($\delta = 0.61$), UK ($\delta = 0.67$), Spain ($\delta = 0.77$), Portugal ($\delta = 1.04$), Ireland ($\delta = 0.53$), France ($\delta = 0.58$) and Austria ($\delta = 0.82$). It could be argued that these estimates are some of the lowest (among those significant), but it does look like even the very rich evaluate their life higher with income gains. The other five countries show that natives keep deriving GLE from income up until somewhere between the second and the fourth quintiles. Interestingly, the "subsistence level hypothesis" arguing that income can only increase happiness among individuals below a substantially low income level (Lane 2000; Frey and Stutzer 2002; McMahon 2006) is not borne out of our data.

The story for immigrants is different. We had originally found positive associations between GLE and income for Portugal, the Netherlands and Belgium. As expected, these three countries have at least one quintile in which the interaction term is positive and significant. Furthermore, Belgium and Portugal present these larger immigrant associations even in the fifth quintile, exhibiting no satiation in the income-GLE association.

Out of the 13 other countries without an immigrant advantage in the pooled sample, we still fail to find a significant interaction coefficient for the US, the UK, Spain, Ireland, France, Canada and Austria. Four out of the remaining six countries present higher subjective well-being gains from income increases in at least one income quintile. While immigrants in Finland derive GLE from income well into the fifth quintile, the foreign-born in Sweden, Italy and Denmark all sate at or below the third quintile. This is also the case for the Netherlands. While we did not find any evidence of subsistence level effects for natives, these findings suggest that they do exist for immigrants. The foreign-born at the lower part of the income distribution are more likely to be recent arrivals, and in this sense, more likely to be wellbeing-seeking migrants.

On the other hand, there are five countries that present negative interaction terms: Sweden (Q1), Spain (Q3), Italy (Q4), France (Q3) and Belgium (Q1). In all five cases these terms are in absolute value larger than the coefficient for the natives. This means that there are some parts of these countries' foreign-born income distributions in which the immigrants are "frustrated achievers" (Graham and Pettinato 2002; Becchetti and Rossetti 2009): increases in income does reduce their absolute level of life evaluation. These are likely not the wellbeing-seeking recent arrivals, but the well-established, long-term resident, high middle-income immigrants. As long as these increases in income do not buy them out of their given quintile, perhaps the additional money only reminds them of what they have failed to obtain. Because in all four countries either there is an immigrant advantage in some other quintile (Belgium: Q5; Italy: Q3; Sweden: Q2) or a native positive income-GLE association not significantly different than the immigrant's, the negative associations disappear when all quintiles are pooled together.

Finally, Fig. 6 replicates this exercise with the life satisfaction measure. First, we do not find significant quintile-specific income-LS associations for natives in four of the six countries that reported this association in the pooled samples (the only exceptions are Italy and Portugal, both with positive associations in the fifth quintile). Small quintile-specific samples might be to blame here. Most countries only have this measure for one survey round, rendering the quintile-specific sample as small as 80 observations. We may not have enough power to find weak associations. We do find previously hidden native income-LS

associations for Canada (Q5) and Ireland (Q2). As with GLE, most positive associations for natives extend to the fifth quintile.

When studied within quintiles, life satisfaction appears much more responsive to income among the foreign-born than global life evaluation and that among the natives. This supports the hypothesis of low income-LS correlations among natives (Helliwell et al. 2010), but offers a novel view from the immigrant's perspective. In particular, we find a disproportionate number of negative interactions, registered at all parts of the income distribution. Most of these are larger in absolute value than the corresponding estimates for natives.

We find that Austria, the Netherlands and Sweden present positive LS-income associations for immigrants within the fifth quintile, over and above that of natives. In addition, there are five countries for which all LS improvements are registered *only* in the first quintile. As with GLE, the subsistence-level hypothesis seems to be more predominant among the foreign-born.

5 Discussion

Using the Gallup World Poll for sixteen high-income countries of immigration, we find that individuals do not seem to be particularly selected into migration based on a disproportionate ability to derive subjective well-being from income gains. In only a handful of countries we find distinctive immigrant advantages either on global life evaluation or life satisfaction: Australia, Belgium, the Netherlands, Portugal and Sweden. With the exception of Australia, we find that, for immigrants, income increases well-being even in the fifth quintile. There are four countries for which income increases happiness only up to a certain point: Denmark, Finland, Italy and the US. In all four cases these are at or below the third quintile. A plausible explanation is that there is a subsistence effect among recent arrivals, with income improving well-being up to the point in which non pecuniary factors associated with long-term residence become dominant. We also find a disproportionate number of "frustrated achievers" among the foreign born. Most specifically, immigrants in the second through fourth quintiles in Spain, Ireland and France respectively show negative associations between subjective well-being and income in absolute value. Finally, immigrants in the UK, Greece and Canada are completely assimilated into the wellbeing-seeking behaviors of the natives, as we fail to find any significant interactions.

We reconcile the U-shaped association between income and life evaluation/satisfaction described above by linking it with the life cycle of a migrant. When a migrant arrives, s/he is in the lower tail of the income distribution but the initial reference group remains that of the country of origin, therefore low purchasing power parity allows the immigrant to feel comparatively richer—and thus—happier. As the immigrant settles into the receiving society s/he assimilates and the reference group switches to natives. The mismatch between expectations and actual income increases—especially if these do not improve the position in the income distribution—lead to frustration and to a decline in happiness. Towards the end of the life course, as the assimilation process continues, the migrant has achieved economic success and finds himself at the top of the income distribution where income-wellbeing association becomes positive once again. This argument is hardly a new argument. Piore (1979, ch.3) already observed in *Birds of Passage. Migrant Labor and Industrial Societies* that economic migrants are happy to accept low-income jobs when they arrive to the new society. As time passes, however, immigrants become assimilated to natives' perceptions on social status and economic gain and the original satisfaction

associated to the income gain transforms into frustration stemming from their relative deprived position as compared to natives.

Our findings supporting the "frustrated achievers" hypothesis should be even more robust in light of the potential negative selection caused by the foreign-born return migrating or moving onward. While the literature has been silent on this issue, our data supports the idea that those in the lower end of the well-being distribution are, in fact, more likely to have negative income-wellbeing associations. These, in turn, are likely to mirror the experience of migrants who failed to assimilate into the receiving society just before leaving, if the out-migrants translate those failures in a poor ranking of their SWB. If our estimates are upwardly biased, our insignificant coefficients, which comprise the bulk of our findings, may actually mask global negative income-wellbeing associations. In other words, a large fraction of international immigrants around the world may not be deriving happiness from their income increases, as migration theory assumes. Group support, discrimination and cultural elements may be more important for immigrants' well-being than economic gain (Herrero et al. 2011).

This study does not come without limitations. As already mentioned, the GWP has not been specifically designed to capture the immigrant populations and thus, it may fail to capture the full extent of this population in many countries. While we do not think that certain groups have been systematically missed, we cannot disregard the possibility that it is the undocumented or immigrants in the fringes of society that are under-represented. However, our quintile-specific results are encouraging in this regard. The marginal immigrant groups are more likely to be at the bottom of the income distribution and thus, to behave more similarly to those in the first and second quintiles, where we find the bulk and the largest immigrant advantages. The potential inclusion of undocumented and marginal immigrants in the analysis will most likely reinforce our findings.

In addition, the nature of the data prevented us from adjusting and disaggregating the information by time since arrival. This would allow us to assess changes in the income-wellbeing association as the assumed reference group changes from the population at origin to the population at destination. For this, a longitudinal data set with repeated information on income and well-being, as well as complete immigration histories would be needed. To the best of our knowledge that type of detailed panel data does not exist for a comparative set of countries, like the Gallup World Poll. Future research should take this study as a starting point and proceed in more detail with country-specific analyses.

With respect to previous evidence, which showed a distinctive immigrant advantage in the US, we fail to replicate this pattern, although we show that the estimate is highly volatile over time and that evidence from a single cross-section might not depict the whole picture.

Our findings suggest that the US is not a country where the experience of immigration is different from other places in the world. It is Australia, Belgium, the Netherlands, Portugal and Sweden where economic migrants seem to get it right: they migrate to a place where income translates easily into well-being, and it does not stop even after they have been settled for a while. Immigrants to other countries, in contrast, do not enjoy this possibility and, furthermore, in some places they seem to become unhappier the richer they get, even in absolute terms. This contraposition is puzzling. Further research is needed to disentangle compositional effects from environmental factors affecting immigrants' income-wellbeing associations in destination countries.

References

Amit, K. (2010). Determinants of life satisfaction among immigrants from western countries and from the FSU in Israel. *Social Indicators Research, 96,* 515–534.

Attanasio, O., & Browning, M. (1995). Consumption over the life cycle and over the business cycle. *The American Economic Review, 85*(5), 1118–1137.

Ball, R., & Chernova, K. (2008). Absolute income, relative income, and happiness. *Social Indicators Research, 88*(3), 497–529.

Baltatescu, S. (2007). Central and eastern Europeans migrants' subjective quality of life. A comparative study. *Journal of Identity and Migration Studies, 1*, 67–81.

Bartram, D. (2011). Economic Migration and Happiness: Comparing Immigrants' and Natives' Happiness Gains From Income. *Social Indicators Research, 103*, 57–76.

Becchetti, L., & Rossetti, F. (2009). When money does not buy happiness: The case of "frustrated achievers". *The Journal of Socio-Economics, 38*, 159–167.

Blanchflower, D., & Oswald, A. (2004). Well-being over time in Britain and the USA. *Journal of Public Economics, 88*, 1359–1386.

Borjas, G. (1994). The economics of immigration. *Journal of Economic Literature, 32*(4), 1667–1717.

Brickman, P., Coates, D., & Janoff-Bulman, R. (1978). Lottery winners and accident victims: is happiness relative? *Journal of Personality and Social Psychology, 36*(8), 917–927.

Brockmann, H., Delhey, J., Welzel, C., & Hao, Y. (2009). The China puzzle: Falling happiness in a rising economy. *Journal of Happiness Studies, 10*, 387–405.

Browning, M., & Crossley, T. (2001). The life-cycle model of consumption and saving. *The Journal of Economic Perspectives, 15*(3), 3–22.

Clark, A. E., Frijters, P., & Shields, M. A. (2008). Relative income, happiness, and utility: an explanation for the easterlin paradox and other puzzles. *Journal of Economic Literature, 46*, 95–144.

Constant, A., & Massey, D. (2003). Self-selection, earnings, and out-migration: a longitudinal study of immigrants to Germany. *Journal of Population Economics, 16*, 631–653.

Cramm, J. M., Møller, V., & Nieboer, A. P. (2010). Improving subjective well-being of the poor in the Eastern Cape. *Journal of Health Psychology, 15*(7), 1012–1019.

De Jong, G., Chamratrithirong, A., & Tran, Q. (2002). For better, for worse: Life satisfaction consequences of migration. *International Migration Review, 36,* 838–863.

Di Tella, R., Haisken-De New, J., MacCulloch, R. (2007). *Happiness adaptation to income and to status in an individual panel*. NBER Working Paper No. W13159.

Diener, E., & Biswas-Diener, R. (2002). Will moneyincrease subjective well-being? A literature review and guide to needed research. *Social Indicators Research, 57*, 119–169.

Diener, Ed., Suh, E. M., Smith, H. L., & Shao, L. (1995). National differences in reported subjective wellbeing: Why do they occur? *Social Indicators Research, 34*, 7–32.

Easterlin, R. A. (1974). Does economic growth improve the human lot? In P. A. David & M. W. Rede (Eds.), *Nations and households in economic growth: Essays in honor of Moses Abramowitz* (pp. 89–125). New York: Academic Press.

Easterlin, R. A. (2005). Diminishing marginal utility of income? Caveat emptor. *Social Indicators Research, 70*(3), 243–255.

Frey, B., & Stutzer, A. (2002). What can economists learn from happiness research? *Journal of Economic Literature, 40*(2), 402–435.

Gallup. (2012). *Worldwide research methodology and codebook*. Gallup: Gallup Inc.

Graham, C., & Pettinato, S. (2002). Frustrated achievers: Winners, losers, and subjective well-being in new market economies. *Journal of Development Studies, 384*(April), 100–140.

Hayo, B., & Seifert, W. (2003). Subjective economic well-being in Eastern Europe. *Journal of Economic Psychology, 24*, 329–348.

Heckman, J. (1979). Sample selection bias as a specification error. *Econometrica, 47*(1), 153–161.

Helliwell, J., Barrington-Leigh, C., Harris, A., et al. (2010). International evidence on the social context of well-being. In E. Diener, J. Helliwell, & D. Kahneman (Eds.), *International Differences in Well-Being*. New York: Oxford University Press.

Herrero, Juan., Fuente, Asur., & Gracia, Enrique. (2011). Covariates of subjective wellbeing among Latin American immigrants in Spain: The role of social integration in the community. *Journal of Community Psychology, 39*(7), 761–775.

Hugget, M. (1996). Wealth distribution in life-cycle economies. *Journal of Monetary Economics, 38*(3), 469–494.

Kahneman, D., & Deaton, A. (2010). High income improves evaluation of life but not emotional well-being. *Proceedings of the National Academy of Science, 107*(38), 16489–16493.

Knight, J., & Gunatilaka, R. (2010a). The rural-urban divide in China: Income but not happiness? *Journal of Development Studies, 46*(3), 506–534.
Knight, J., & Gunatilaka, R. (2010b). The Subjective Well-being of Rural–Urban Migrants in China. *World Development, 38*(1), 113–124.
Lane, R. (2000). The loss of happiness in market democracies. New Haven: Yale University Press.
Massey, D., & Akresh, I. (2006). Immigrant intentions and mobility in a global economy: The attitudes and behavior of recently arrived U.S. immigrants. *Social Science Quarterly, 87*, 954–971.
McMahon (2006) Happiness: A history. New York: Grove Press.
Neto, F. (1995). Predictors of satisfaction with life among second generation migrants. *Social Indicators Research, 35*(1), 93–116.
Ouweneel, P., & Veenhoven, R. (1991). Cross-national differences in happiness: Cultural bias or societal quality. In N. Bleichrodt & P. J. D. Drenth (Eds.), *Contemporary issues in cross-cultural psychology*. Amsterdam: Swets and Zeitlinger.
Palloni, A., & Arias, E. (2004). Paradox lost: Explaining the Hispanic adult mortality advantage. *Demography, 41*(3), 385–415.
Piore, M. J. (1979). *Birds of Passage*. Migrant Labor and Industrial Societies: Cambridge University Press.
Ratha, D., Mohapatra, S., & Ani, Silwal. (2010). *Migration and Remittances Factbook 2011* (2nd ed.). Washington DC: World Bank.
Saarela, J., & Rooth, D.-O. (2012). Uncertainty and international return migration: some evidence from linked register data. *Applied Economic Letters, 19*, 1893–1897.
Sjaastad, L. A. (1962). The costs and returns to human migration. *Journal of Political Economy, 70*, 80–93.
U.S. Census Bureau. (2012). Statistical Abstract of the United States: 2012.