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DISCUSSION PAPER SERIES

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ABSTRACT

Emigration, Remittances and the Subjective Well-Being of Those Staying Behind*

Despite growing academic and policy interest in the subjective well-being consequences of emigration for those left behind, existing studies have focused on single origin countries or specific world regions. Our study is the first to offer a global perspective on the well-being consequences of emigration for those staying behind using several subjective well-being measures (evaluations of best possible life, positive affect, stress, and depression). Drawing upon Gallup World Poll data for 114 countries during 2009-2011, we find that both having family members abroad and receiving remittances are positively associated with evaluative well-being (evaluations of best possible life) and positive affect (measured by an index of variables related to experiencing positive feelings at a particular point in time). Our analysis provides novel results showing that remittances are particularly beneficial for evaluative well-being in less developed and more unequal contexts; in richer countries, only the out-migration of family members is positively associated with life evaluations, while remittances have no additional association. We also find that having household members abroad is linked with increased stress and depression, which are not offset by remittances. The out-migration of family members appears more traumatic in contexts where migration is less common, such as more developed countries, and specific world regions, such as Latin America and Sub-Saharan Africa, as well as among women. Relying on subjective well-being measures, which reflect both material and non-material aspects of life and are broad measures of well-being, allows us to provide additional insights and a more well-rounded picture of the possible consequences of emigration on migrant family members staying behind relative to standard outcomes employed in the literature, such as the left-behind's consumption, income or labor market responses.

JEL Classification: F22, F24, I3, J61, 015

Keywords: migration, remittances, depression, stress, Cantril ladder of life, happiness, Gallup World Poll

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1. Introduction

Owing to high migration costs, strict migration policies and uncertain conditions at the destination, international migrants often leave family members in the countries of origin (Démurger, 2015). The literature shows that migration and remittances can affect various socio-economic outcomes among those left behind, such as poverty and income (Adams, 2011; Gibson et al., 2011), education (Antman, 2012; Cortes, 2015; Kroeger and Anderson, 2014; Yang, 2008) and health (Antman, 2010; Böhme et al., 2015; Gibson et al., 2011; Kroeger and Anderson, 2014). Migrants can also change norms, attitudes and behaviors back home. Examples of such non-monetary, or social (Levitt, 1998), remittances include the effects of emigration on political participation (Chauvet and Mercier, 2014), corruption behavior (Ivlevs and King, 2017), fertility (Beine et al., 2013), and civic engagement (Nikolova et al., 2017). While not all studies point to superior socio-economic, behavioral and health outcomes for those left behind, migration and remittances have been increasingly recognized as important development tools for the origin countries (Skeldon, 2008; UNDP, 2009).

There has recently been increasing academic and policy interest in the subjective well-being consequences of migration for household members staying behind in the origin country. The literature has mainly focused on children, their caregivers and the elderly, with the results varying depending on the nature of migration (internal or international), who is left behind (e.g. children vs. parents), the outcome measure and the analysis country or countries. For example, Dreby (2015) and Wu et al. (2015) document greater feelings of resentment and depression among children of emigrant parents in Mexico and China, while Vanore at al. (2015) find that parental out-migration is unassociated with children's emotional well-being (an index based on information on the feelings of worry, unhappiness, nervousness and fear) as well as conduct problems in Moldova. A study on Ghana, Angola and Nigeria (Mazzucato et al., 2015) reveals that changing caregivers due to the out-migration of family members negatively affects children's psychological well-being (a composite measure of psychological distress derived from the Strength and Difficulties Questionnaire (Goodman, 1997); in

addition, the type of migration (internal or international) and which parent migrates matters in some country contexts but not others. Fathers' migration is associated with children's conduct problems in Thailand and Moldova (E. Graham & Jordan, 2011; Vanore et al., 2015) but not in China, where father-only migration is linked with a lower likelihood of problem behaviors among children (Wen et al., 2015).

Looking at the mental health of migrant children caregivers in South-East Asia, Graham et al. (2015) find that mothers whose partners have migrated are more likely to suffer from poor mental health (measured using an index based on self-reported emotional distress, including nervousness, difficulty in making decisions, suicidal thoughts, tiredness, headaches, and poor appetite) than mothers from non-migrant households. Similarly, Nobles et al. (2015) document increased sadness, crying and difficulty sleeping among the stay-behind mothers in Mexico. The mental health of the elderly parents was found to deteriorate after the migration of children in China and South Africa (Marchetti-Mercer, 2012; Scheffel & Zhang, 2015; Xie et al., 2014). The evidence for Thailand is more mixed, with Adhikari et al. (2011) reporting a negative association and Abas et al. (2009) finding the opposite. Providing causal estimates is a common challenge (Démurger, 2015) and the few studies explicitly addressing causality (Böhme et al., 2015; Gibson et al., 2011; Waidler et al., 2016) find that emigration has no effect on the mental health (captured by various indicators, including an index of feeling happy, peaceful, tense, blue and downhearted, and feeling depressed) of the elderly staying behind in Moldova and Tonga.[1]

An emerging literature has considered the well-being consequences of receiving migrant remittances from abroad (which we define as transfers of money and goods made by migrants to the family members back home; henceforth, remittances).[2] For example, remittance receipt is positively

[1] We discuss causality again in Section 2.3.
[2] While our paper specifically examines international migration and receiving remittances from abroad, there is also an emerging literature on the well-being consequences of migrant remittances of rural-to-urban migrants and on the internal migrants themselves, for example in China (Akay et al., 2012; 2014; 2016).

associated with life satisfaction in Latin America, possibly through increasing financial security (Cárdenas et al., 2009). Borraz et al. (2010) find that migrant and non-migrant households experience similar happiness levels, arguing that remittances compensate migrant households for the pain of separation and the disruption of family life. Gartaula et al. (2012) find that Nepalese women in remittance-receiving households experience improvements in objective well-being (economic situation, access to food and water, child education etc.) but not necessarily subjective well-being (feeling separated from partner, feeling overburdened with work, problems with disciplining children, stricter control from parents-in-law). Investigating rural-migrant migraiton in China, Akay et al. (2016) document that remittance income is positively associated with mental health (as measured by the GHQ-12 questionnaire) among the left behinds of rural-to-urban migrants in China but having one or more migrant workers in the family is negatively associated with mental health.

With some exceptions (Cárdenas et al., 2009; E. Graham & Jordan, 2011; E. Graham et al., 2015; Mazzucato et al., 2015), the existing evidence has focused on data from a single—and predominantly low or lower-middle-income—origin country, leaving the heterogeneity in the relationship between emigration and the well-being of those staying behind unexplored across diverse countries of origin. This paper fills this knowledge gap by studying emigration's well-being consequences in a wide range of origin countries, including high-income countries, and using several subjective well-being dimensions, which has not been previously done in the literature. In particular, the term "subjective well-being" refers to both hedonic (i.e. *affective*) and cognitive (i.e., *evaluative*) dimensions of well-being. Positive hedonic well-being encompasses positive feelings *at a particular point in time* such as joy and happiness. Negative hedonic well-being includes experiences of stress, anger, sadness or worry *at a particular point in time*.[3] In contrast, evaluative well-being is an overall cognitive reflective assessment of the respondent's life as a whole. Evaluative well-being usually

[3] In this paper, we use the terms "affective well-being" and "hedonic well-being" synonymously.

reflects people's capabilities, means and long-term opportunities (C. Graham & Nikolova, 2015). This dimension is typically measured using general life satisfaction questions or the Cantril ladder of life question, whereby respondents rate their current life on an 11-point scale, where 0 represents their worst possible life and 10 corresponds to the best possible life that they can imagine for themselves. [4] Assessing to what extent one's life is the best possible one can imagine for her/himself requires a thorough evaluation of past and present life circumstances. By contrast, hedonic experiences indicate emotions and moods triggered by pleasant and unpleasant daily experiences such as commuting, minor health conditions such as having a cold, spending time with family or friends, or reading a funny book. As explained in Section 2.2., in this paper we utilize four subjective well-being outcome variables. First, our *evaluative well-being* proxy is based on the Cantril ladder of life question (Best Possible Life (BPL)). The rest of our dependent variables capture hedonic well-being dimensions, which reflect short-term positive and negative moods related to daily lives and activities.

Relying on Gallup World Poll data and evaluative and hedonic well-being measures, we ask the following questions: What is the relationship between the out-migration of family members and different subjective well-being dimensions of household members staying behind? Do migrant remittances mediate this relationship? Does the relationship between emigration and subjective well-being depend on individual and origin country characteristics?

Finding answers to these questions is important from a policy perspective for the following reasons. First, subjective well-being relates to the notion that how people experience a set of objective circumstances may be just as important as those circumstances themselves and that individuals are the best judges of how their lives are going (OECD, 2011). By reflecting both objective and perceived circumstances, subjective-well-being is an integrated representation of individual welfare.

[4] We use the terms "life evaluations," "evaluative well-being," and "Best Possible Life (BPL)" interchangeably.

Unsurprisingly, governments around the world are increasingly complementing objective welfare metrics with subjective well-being outcomes such as life satisfaction and happiness to assess individual welfare and societal progress and guide policymaking (O'Donnell, 2014; OECD, 2013; Office for National Statistics, 2013). In the context of our study, subjective measures allow us to draw a more rounded picture of the effects of emigration on migrant family members staying behind than by simply looking at the left-behind's consumption, income or labor market responses. Second, subjective well-being is important to policy-makers as it has a number of objective benefits. For example, higher subjective well-being levels are linked to better physical health and longevity, given that happier people live longer, have better cardiovascular and immune systems, recover quicker from illnesses, exercise more, have better eating habits and are less likely to adopt risky health behaviors (De Neve et al., 2013; Diener and Chan, 2011; Howell et al., 2007; Sabatini, 2014). Happier people also have greater social skills and are more productive, creative and motivated in the workplace (De Neve et al., 2013; Oswald et al., 2015). Despite the policy salience of both subjective well-being and migration, relatively little is known about the effects of emigration on the different subjective well-being dimensions of people staying behind.

We argue that the emigration of household members can be linked with multiple—often conflicting—subjective well-being states among those staying behind. For example, the pain of separation from family members could provoke increased stress and depression (i.e. negative hedonic components of subjective well-being). The out-migration of a family member who was helping through market or home production could also lead to family disruptions and thus lower subjective well-being (Borraz et al., 2010). At the same time, knowing that family members have more opportunities and realize their potential though emigration could result in greater life satisfaction and more positive life evaluations (i.e. cognitive components of subjective well-being). In other words, the left behind family member could have altruistic feelings towards the migrant household member, who may be leading a better life abroad. Many migrants send home money, which could compensate

for any negative separation effects through increasing income and opportunities, as well as reducing vulnerabilities, and thus boosting subjective well-being. This conjecture is supported by the New Economics of Labor Migration (NELM) framework, according to which households send migrants abroad with a prospect of receiving remittances that would subsequently be used to invest in new activities or insure against risks (Taylor, 1999). One could thus expect a positive link between remittance receipt and well-being (through increased capabilities and greater security), especially in countries with underperforming credit and insurance markets.

To furnish a global perspective of the relationship between emigration and the subjective well-being of household members staying behind, we use data from the Gallup World Poll (GWP), which includes several subjective well-being questions and information on whether the respondent has household members abroad who left in the past five years. Our analysis sample spans 114 countries, allowing us to uncover both the common trends in a set of varied countries and differences across country groups.

Our study contributes to the scholarly dialogue and the burgeoning literature on the well-being of those staying behind by providing a global perspective, i.e. exploring the subjective well-being consequences of emigration in a wide range of origin countries. In this sense, this study the first to furnish evidence on the well-being benefits and costs of emigration in high-income countries. Second, we contribute to the broader literature exploring the links between migration and subjective well-being (typically measured using life satisfaction and happiness).[5] While existing studies have examined the relationship between immigration and the subjective well-being of migrant-receiving populations (Akay et al., 2017; Akay et al., 2014; Betz and Simpson, 2013; Ivlevs and Veliziotis, 2018; Longhi, 2014), the impact of home-country conditions on migrants' happiness abroad (Akay

[5] See Hendricks (2015, 2018) and Simpson (2013) for excellent summaries of the existing studies on happiness and migration.

et al., 2016), migration's consequences for migrants' subjective well-being (Nikolova and C. Graham, 2015), as well as the effects of subjective well-being on the decision to emigrate (Cai et al 2015; C. Graham and Markowitz, 2011; Ivlevs, 2015; Otrachshenko and Popova, 2014), we add to this literature by looking at the effects of emigration on the well-being of those staying behind in the countries of origin.

2. Method

2.1. Data

The data in this paper are from the GWP, an annual global survey conducted since 2005/6 in about 160 countries worldwide, representing more than 99% of the world's civilian non-institutionalized population aged 15 and older. Polling approximately 1,000 respondents in each country (with one respondent per household), Gallup asks a core set of questions using face-to-face or phone interviews (where telephone coverage is more than 80%). With few exceptions (e.g. when interview staff's safety is compromised), all samples are probability-based and nationally representative of the population aged 15 and older.[6] One key advantage of the GWP for the purposes of our analysis is that the Poll collects subjective well-being data along several dimensions and according to the OECD Guidelines (2013).

[6] While Gallup polls approximately 1,000 respondents in each country, large countries such as China and Russia are oversampled and have at least 2,000 respondents, while Puerto Rico has only 500. All respondents in the same country use the same interview method (either phone or face-to-face). Any bias stemming from the interview method (phone or face-to-face) on providing answers to emotional well-being questions is accounted for by country-fixed effects in the analysis. The phone sample design is based on random-digit dialing. The Kish grid or last birthday method is used to select one respondent within each household. For in-person interviews, Gallup uses a three-stage sampling procedure, whereby 100-135 household clusters per country are selected in the first stage (independent of previous-year samples). The second stage involves random route procedures to select sampled households. In the third stage, respondents are randomly selected within households using the Kish grid method, with only one respondent answering the questionnaire in each household. Gallup researchers re-weigh the data by adult household size to account for the lower probability of being in the sample for respondents in larger households. Gallup researchers also use post-stratification weights by age, gender and—where available—education and socio-economic status to ensure national representativeness. However, it is possible that the samples do not reflect the ethnic composition of the underlying populations, especially in ethnically diverse countries; given that Gallup does not report an ethnicity variable, we cannot check whether the national samples are representative of ethnic diversity.

Since 2009, Gallup has provided household income and employment information, and thus we use 2009 as the starting point for this analysis. Our analysis sample is also based on all available countries and years since 2009 with valid information on whether: (i) the members of the respondent's household have moved abroad permanently or temporarily in the past five years and are still there; and (ii) the respondent's household has received help in the form of money or goods from abroad in the past one year. While the first variable informs whether family members left in the past five years, we do not have information on the exact duration of the migration episode; furthermore, there is no information on the minimum amount of time that an individual should spend abroad to be considered a migrant. Other limitations of the emigration of family members variable—which we acknowledge but cannot correct—include the lack information on whether the migrant is abroad permanently or temporarily (e.g. circular migrant, temporary migrant, studying abroad) and what is the exact familial relationship of the emigrant to the respondent.

Our sample (*N*=144,003) comprises 114 countries and spans the period 2009-2011 (some countries appear in all three years), with the majority (78%) of observations coming from 2009 (countries are listed in Table A2 in the appendix).[7] In Section 3.2., we provide additional specifications for 2009 only, for the Western Balkan countries, which are the only country group appearing in all three years 2009-2011, and offering weighted regressions (using the inverse of the number of years in the regressions as a weight).

2.2. Variables

As subjective well-being is a multidimensional construct (OECD, 2013), we use four individual-level outcome variables, which has not been previously done in the literature. *Evaluative well-being* is based on a question on the Best Possible Life (BPL), whereby respondents are asked to evaluate their

[7] While the Gallup World Poll started in 2005/6, remittance receipt, income and employment status are only available starting in 2009. Moreover, the question on whether the respondent has family members abroad who left in the last 5 years is only available for 2007-2011. Therefore, the sample that contains all information we require for this analysis is: 2009-2011.

current life on a ladder from 0 (worst possible) to 10 (best possible that life they can imagine for themselves). In contrast to this evaluative subjective well-being dimension, the rest of our dependent variables capture hedonic well-being dimensions, which reflect short-term positive and negative moods related to daily lives and activities. Specifically, using Principal Component Analysis, we construct a positive affect index, which is the first principal component of three binary variables capturing the experience of joy, happiness and smiling the day before the interview. To be consistent with the evaluative well-being (BPL) measure, we re-scale the index—which captures positive hedonic well-being—to range from 0 to 10. Next, we include two separate binary variables capturing the experience of stress and depression. Variable definitions are available in Table A1 in the Appendix. We refrain from constructing a negative affect index from these variables because—in contrast to positive ones—negative hedonic well-being dimensions tend to be more differentiated and multidimensional (Stone & Mackie, 2014). In addition, we are particularly interested in how depression experiences, which are a marker of mental health, relate to the emigration of household members. We are confident in performing cross-country analyses of these subjective well-being measures, as psychological and brain-scan research indicates that they are consistent across time and space (see, e.g., C. Graham, 2009) and the effect of cultural biases on answering subjective well-being questions is limited (Exton et al., 2015).

Our control variables comprise standard individual and household socio-demographic characteristics, namely the respondent's age, gender, education, income, marital status, children in the household, urban or rural location, household size, employment status and religiosity (whether religion is important in the respondent's life). All variable definitions are provided in Table A1. We also include three self-reported health variables: experiencing physical pain, health satisfaction and whether the respondent reported a health problem. We do so to separate separate subjective well-being from physical health as much as possible, as health conditions affects may affect subjective

well-being (C. Graham et al., 2011). In addition, health conditions may affect the probability of staying behind, which is why we need to control for them in the regression.[8]

To avoid bias from dropping observations due to missing data, we create an additional category for missing observations for all variables included in the analyses. Regressions using only non-missing observations are consistent with our main findings and are reported in Table A7 in the Appendix.

2.3. Estimation Strategy

In separate regressions, we estimate the association between each of the four subjective well-being outcomes (evaluative well-being measured as the respondent's assessment of the best possible life (BPL)), positive affect, stress, depression) and the out-migration of a household member, using an Ordinary Least Squares (OLS) estimator. While the evaluative well-being (BPL) variable is ordinal and technically we need an ordinal logit or an ordinal probit estimator, Ferrer-i-Carbonell and Frijters (2004) show that the results do not differ when OLS is used with ordinal subjective well-being data. OLS estimations are moreover easier to interpret. For consistency, we also estimated with OLS the models explaining stress and depression, where the dependent variable is binary.

The subjective well-being outcome S of individual i in time period t living in country c is:

$$S_{itc}=\alpha + \beta M_{itc} + X'_{itc}\gamma + \pi_c + \tau_t + u_{itc,} \quad (1)$$

where M is a binary indicator for having a household member abroad who has emigrated in the past five years, X is a vector of individual- and household-level characteristics, π_c are country dummies, τ_t are year dummies and u_{itc} is the stochastic error term. In separate regressions, we also include a

[8] As a robustness check, we excluded health variables from our control set, and the results remained unchanged (See Table A6 in the Appendix).

binary indicator variable for remittance receipt to assess whether remittances mediate the relationship between subjective well-being dimensions and staying behind.[9]

At the outset, we note that our results should be interpreted as *conditional correlations* rather than *causal effects*. The main concern relates to the fact that the emigration does not occur at random. Traits such as openness, risk aversion, motivation and ability could affect both well-being and the selection of individuals into migration both within and across households. The lack of panel data—whereby the same migrants and their household members are observed over time and where appropriate, across international borders—does not allow us to control for such unobserved, time-invariant characteristics that simultaneously influence subjective well-being and emigration.[10] Another source of endogeneity is reverse causality, as it is conceivable that the deteriorating subjective well-being of household members is part of the migration decision. For example, if the subjective well-being of parents is ex ante poor, then the likelihood that their children emigrate is lower (Démurger, 2015). It is also possible that unhappy family members make it more likely that other members choose to move away (Borraz et al., 2010). Nevertheless, additional estimates in Table A8 of the Appendix demonstrate that while some subjective well-being dimensions are determinants of having a migrant family member abroad and, to some extent, receiving remittances, they only predict at most 1 percent of the probability of having a family member or receiving remittances. Depression and stress feelings are not associated with remittances, moreover (Models (6) and (8) in Table A8). Thus, while reverse causality may be possible, it is unlikely that it is driving all of our findings.

[9] Note that we do not have data on the actual monetary value of either cash or in-kind remittances but rather only information on whether the respondent's family receives them or not. We also recognize that respondents may underreport the receipt of remittances (although, arguably, respondents are less likely to underreport the receipt of remittances than the actual value of remittances). If, in addition, the underreporting of remittances receipt is related to country-level characteristics, such as inequality, caution should be applied when interpreting the country-group results (section 3.2).
[10] Nevertheless, even if such a panel dataset existed, it may have suffered from high attrition rates, thus making panel estimations unreliable.

Correcting reverse causality and selection bias is usually achieved using instrumental variables (Böhme et al., 2015; Waidler et al. 2016), natural experiments (Gibson et al., 2011) or selection-correction procedures and matching (Borraz et al., 2010). Nonetheless, finding convincing instruments that are only correlated with the migration decision but not subjective well-being is challenging. Böhme et al. (2015) study the consequences of children's out-migration on the health of elderly left behind parents in Moldova. The authors demonstrate that selection biases simple OLS results downwards, implying that when the selection of individuals from poor households with *a priori* sickly parents is taken into account using instrumental variables approach, the true positive consequences of emigration for the health of the elderly left behind are even stronger. Waidler et al. (2016) reach the opposite conclusion, again using a similar sample for Moldovan elderly parents and an instrumental variable estimation. Finally, as noted, using an experiment involving a migration lottery allowing Tongans to emigrate to New Zealand, Gibson et al. (2011) do not find much evidence that self-selection at the individual level biases the results. Additionally, while we also provide evidence using entropy balancing weights, matching methods such as those used in Borraz et al. (2010) assume that the selection into migration is based on observables, which is also methodologically problematic. It is thus difficult to know whether or not selection may be plaguing our results. Based on the experimental evidence of Gibson et al. (2011) and our own estimates using regressions applied after entropy balancing, selection should not be the main driver of our findings. Yet, we do not have experimental findings against which we can benchmark our estimates. While we acknowledge possible endogeniety issues and do our best to mitigate them, our goal is to offer the first global assessments of the patterns in the relationship between emigration and the well-being of those left behind, while leaving causal explorations to further research. With these caveats in mind, we apply additional caution when interpreting our results. Nevertheless, we show that our results survive several sensitivity tests, which suggests that while selection may be a problem, it is not the primary driver behind our results.

3. Results

3.1. Full Sample

Table 1 reports the results of the variables of interest for the full sample; complete results are available in Table A4 in the Appendix. *Ceteris paribus*, having a migrant in the household is associated with a 0.116-point higher evaluative well-being (BPL), measured on a scale of 0 to 10, where 10 is the best possible life one can imagine and 0 is the worst possible life; the coefficient estimate is statistically significant at the 1% level (Model (1)). Evaluated at the sample mean of 5.495 (see Table A3 in the Appendix for summary statistics), this is linked with a 2% increase in life evaluations (BPL), which is substantively small. Nevertheless, this result could reflect the subjective well-being derived from aspiration fulfillment at the household level. Put differently, if emigration of household members is a household decision, then families left behind at the origin may derive satisfaction from the fact that migrants realize their potential abroad. Having a migrant abroad could also increase the opportunity for the respondent to move abroad in the future, hence raising the evaluation of one's best possible life (BPL). Adding remittances as an additional control in Model (2) does not diminish the significance of the coefficient estimate of the *Relatives Abroad* variable, although it reduces its magnitude to 0.085 points on a 0-10 scale. When remittances are added, both regressors of interest are positive and highly significant, suggesting that the receipt of remittances has a positive and significant association with BPL beyond the influence of *Relatives Abroad*. Specifically, conditional upon being in a migrant household, remittance receipt is linked with an additional 0.112-point increase in life evaluations (BPL), which, evaluated at the sample mean, corresponds to a 2% increase. This result is likely due to the increase in material living standards, or a "signaling effect" (Akay et al., 2016), which could also allow for the expanded capabilities and means that remittances bring. The signaling effect could reflect the different social status migrant-receiving families could have in the community.

Similarly, Models (3) and (4) suggest that the emigration of household members is associated with higher levels of positive affect among those staying behind: evaluated at the sample mean (7.205), the estimated coefficient in Model (3) is associated with a 1.8% increase in the average positive affect score. When we condition upon remittance receipt in (4), the coefficient estimate for *Relatives Abroad* is again about 30% lower compared to Model (3), with an additional positive affect premium from remittances of about 0.09 points (on a 0-10 scale).

Despite being positively linked with evaluative and hedonic well-being, the emigration of household members is also associated with stress: the coefficient estimate on *Relatives Abroad* is positive and significant in both Models (5) and (6). The conditional difference in the average stress scores between migrant and non-migrant households (0.009) represents 3.5% of the average sample stress level (0.259). Importantly, when remittance receipt is included in Model (6), its coefficient estimate is negative but statistically insignificant, suggesting that remittances do not offset or amplify stress associated with the emigration of household members, likely because the higher status associated with receiving remittances does not improve stress in daily lives.

Finally, the emigration of household members is positively associated with a higher likelihood of experiencing depression (Models (7)-(8)). Having a household member abroad is linked with a 0.009 percentage point increase in the probability of reporting depression, which represents an increase of 7.3% relative to the average incidence of depression (0.124). As in the case of stress, remittances are statistically insignificant (Model (8)), although the coefficient estimate for *Relatives Abroad* remains generally unchanged in terms of size and magnitude.

[INSERT TABLE 1 ABOUT HERE]

We also briefly comment on the estimated coefficients of the control variables in Table 1, most of which corroborate previous findings in the literature. People in the middle of the age distribution (ages 36-60) report lower BPL levels (on a scale of 0-10) as well as higher levels of depression

compared to the young, whereas the elderly report the lowest levels of positive affect and the lowest levels of stress among all age groups. Women have on average higher life evaluation (BPL) and positive hedonic scores than men, suggesting, colloquially, that "women are happier than men," although they are also more likely to report higher levels of stress and depression. Married respondents have higher levels of BPL, positive affect and lower levels of depression, while having children is associated lower levels of all types of well-being. The statistically significant coefficients of the household size variable and its square imply a quadratic relationship between household size and evaluative and positive hedonic well-being, whereby a greater household size is associated with higher evaluative well-being (BPL) and positive affect, peaking when the household size reaches 14-16 and decreasing thereafter. Household size is negatively associated with depression experiences, although the relationship becomes positive after household size reaches 12. Income is positively associated with both evaluative and hedonic well-being and is negatively linked to depression, although it is not associated with stress. Holding constant the other covariates included, more educated people report higher evaluative well-being (BPL) and positive affect levels, higher stress levels and lower depression levels. Relative to employed respondents, the unemployed report lower—and those out of labor force higher—levels of BPL and positive affect. Moreover, the unemployed are also more likely to experience depression and those out of labor force are less likely to report stress. As expected, inferior health (physical pain, health dissatisfaction, and health problems) is strongly associated with lower levels of evaluative and hedonic well-being, as well as increased stress and depression. Respondents for whom religion is important have better subjective well-being outcomes in all dimensions except depression, where the coefficient estimate is insignificant. Finally, respondents living in large cities (as opposed to small towns and villages) have higher levels of evaluative well-being (measured of evaluations of best possible life (BPL)) and positive affect, as well as stress, and depression.

3.2. Heterogeneity Analyses

Given the context-specific nature of the results reported in the literature, we checked whether our findings also differ according to the broad country group context and individual characteristics of those left behind. Table 2 shows the results for the four country groups based on the World Bank's per capita country income classification (see Table A2 in the Appendix for classifications). Across the board, the emigration of a household member is associated with higher life evaluations (BPL) and the coefficient estimates are similar in magnitude (0.091-0.138) and significant at the 1% level (Panel A). Adding *Remittances* paints a more nuanced picture: as country income per capita decreases, the magnitude of the association between receiving remittances and evaluative well-being becomes stronger and peaks for lower-middle-income countries. Adding remittances renders the coefficient of *Relatives Abroad* statistically insignificant for the low-income group, suggesting that the BPL premium for this group is entirely driven by remittances. This is a novel finding, which is previously undocumented in the literature and implies that remittances play a *greater* role in enhancing evaluative well-being in *poorer* rather than *richer* countries, reflecting a result that was previously undocumented in the literature. A possible explanation—consistent with the NELM predictions—is that remittances expand the means and capabilities of the recipients and add to the feeling of financial security in poorer countries, where poverty is widespread, social welfare systems weak, and credit and insurance typically dysfunctional. As the marginal utility of income is higher and material means are more important for life evaluations in poorer rather than richer countries, remittances are associated with higher well-being in the former.

Panel B of Table 2 reports the country income group results for positive affect. Both migration-related variables are positive and statistically significant in lower-middle-income countries. The *Relatives Abroad* variable is also positive and marginally significant (at the 10% level) in the upper-middle-income countries.

Next, in lower-middle-income and high-income countries, the emigration of household members is associated with above-average stress levels (Panel C), albeit being only marginally statistically significant. The magnitude of the coefficient estimate is somewhat higher in high-income countries, possibly because the pain of separation hits respondents harder in high- rather than low-income countries. This could be explained by the relatively strong informal networks, extended family structures and norms related to raising children by non-biological parents in poorer countries (Mazzucato et al., 2015; Murphy, 2008), which may make it easier to deal with the negative emotions associated with being left behind.

In addition, remittance-receiving households in high-income countries report more depression experiences than their non-remittance receiving counterparts (Panel D), possibly because receiving remittances in prosperous countries with relatively generous welfare systems is a marker of destitution or disadvantage and—as such—is accompanied by depression.

[INSERT TABLE 2 ABOUT HERE]

To further examine the role that various country group contexts play for our findings, we conducted additional analyses by the Human Development Index (HDI) group, income inequality group, world region and net migration rate. The results by HDI group—reported in Table 3 —are very similar to those by income group, especially for the evaluative well-being (BPL) estimations. The parallel is unsurprising given that per capita income is a major component of the HDI. However, we observe a negative association between receiving remittances and positive emotions among the very high HDI nations. Again, remittance receipt in such societies may be less of a norm and as such may be a marker of unusual circumstances or destitution. The latter conjecture is supported by the finding that depression is positively associated with remittances in very high HDI countries. Having relatives abroad is positively associated with stress in very high HDI countries, while receiving remittances is negatively associated with stress in low HDI countries, possibly because they ease

financial constraints in such contexts. Having relatives abroad is positively associated with depression in low HDI countries. This highlights the pain of separation explanation, as migration from these countries is more likely to be illegal and migrants are less likely to return back home to visit.[11] Interestingly, while *relatives abroad* is positively linked with depression in high HDI nations, remittances provide a partial compensation for the absence of loved ones.

[INSERT TABLE 3 ABOUT HERE]

Next, we checked whether the relationship between emigration of household members and the subjective well-being of the left behind depends on how unequal a society is. The results by income inequality group, reported in Table 4, show that remittances are associated with evaluative well-being (measured as evaluations of the best possible life (BPL)) in more unequal countries, which could reflect the capabilities-enhancing role of remittances where social redistribution systems are weak. Furthermore, the analysis suggests that the emigration of family members is associated with higher levels of depression in more unequal countries. It is possible that in such contexts, where social cohesion and public support systems are weaker than in more equal societies, migrants find it particularly difficult to cope with the pain of separation.

[INSERT TABLE 4 ABOUT HERE]

Next, Table 5 reports results by geographical region. Having a family member abroad is associated with higher BPL in all world regions except North America and Western Europe. The positive association is entirely driven by remittances in the world's poorest regions, namely South Asia and Africa. In East Asia/Pacific and Latin America, remittances amplify the positive association between having relatives abroad and evaluative well-being. Meanwhile, in Middle East and North

[11] Note that the Gallup organization does not collect information on the respondent's legal status in the country of interview. This is our interpretation.

Africa, remittances have no value added for BPL above and beyond the influence of having family abroad. In Western Europe, neither of the migration variables are linked with evaluations of the best possible life (BPL), while in North America both regressors have a negative relationship with BPL. Americans and Canadians with family and friends abroad also experience less positive affect (Panel B). Having migrants and receiving remittances in predominantly migrant-receiving/remittance-sending countries such as the USA and Canada appears to be charged with negative experiences.

An interesting pattern appears when we consider the transition economies, in which having family abroad is simultaneously linked with higher positive and negative affect. These migrants are often circular, going to Russia and nearby Western European countries and frequently returning back home (Weinar, 2014). Positive affect associated with having family abroad is likely to be linked with the frequent visits and communication with the family abroad. At the same time, such traveling back and forth may add to the daily uncertainty and stress among those staying behind.

Finally, Table 5's Panel D highlights that depression experiences mainly occur among those left behind in Latin American and Sub-Saharan Africa, likely because migrants from these countries are more likely to be illegal and therefore less likely to return home. Thus, that the pain of separation in such contexts is likely to be more pronounced. This finding corroborates Nobles et al. (2015) and Marchetti-Mercer (2012), who find a negative relationship between the emigration of household members and the mental well-being of those left behind in Mexico and South Africa, and echoes our previous finding that emigration of family members is associated with higher levels of depression in more unequal countries (the world's most unequal countries are found in Sub-Saharan Africa and Latin America). Nevertheless, given the low availability of legal migration options in these contexts, it may be that respondents from relatively depressed families emigrate to begin with. Note that the migration variables are also insignificantly associated with depression and stress for Asian countries, which to a certain extent contradicts the previous literature on Asia (Abas et al., 2009; Adhikari et al., 2011; E. Graham et al., 2015; Scheffel & Zhang, 2015; Xie et al., 2014). Possible reasons for this

discrepancy include an emphasis of this literature on specific groups left behind groups (caregivers and the elderly) and internal rather than international migration contexts.

[INSERT TABLE 5 ABOUT HERE]

Next, Table 6 presents the results according to the country net migration rate, based on the UN data for 2005-10. Panel A documents that having relatives abroad is positively associated with life evaluations across all migration rate quartiles. Adding remittances reveals that having family abroad is no longer positively associated with evaluative well-being (BPL) in high-emigration countries (Quartile 1), suggesting that the positive BPL influence of having family abroad is only through the monetary remittance channel. In countries with relatively low emigration rates, where out-migration is less of a norm, remittances are even negatively associated with BPL (Quartile 3)[12] or not associated with BPL (Quartile 4). These results support our earlier findings that remittances are particularly important for evaluative well-being in lower-income income countries, where out-migration rates tend to be high. We also find that migrant relatives are more likely to experience stress and depression in countries with relatively low emigration rates (Quartiles 2-4), while the coefficients are insignificant in high-emigration countries (Quartile 1). A possible explanation is that people in high-emigration countries have developed mechanisms to deal with the negative consequences of emigration. By contrast, where emigration is less common, people have less knowledge of how to cope when someone leaves.

[INSERT TABLE 6 ABOUT HERE]

[12] This negative association could be due to the fact that the third quartile of the net migration rate indeed encompasses a range of very different countries - rich and poor, with positive and negative net immigration (from France, Germany and Greece to Ecuador, Chad and India) and it is possible that the negative remittance coefficient reflects the fact that additional income from remittances affects BPL differently in these very different contexts.

Given our finding that remittances benefit people in less developed and more unequal countries, we further checked whether people from more deprived circumstances disproportionately benefit from remittances. Using education as a proxy for socio-economic status, we found that people with lower levels of education benefit most from remittances (Table 7). This corroborates our finding that remittances are associated with higher evaluative well-being in more deprived contexts.[13]

[INSERT TABLE 7 ABOUT HERE]

Next, given a particular emphasis within the existing literature on age and gender, we investigated whether differences along these lines also emerge on a global scale. The results for relatively young (15-36 years), mid-aged (36-60 years), and elderly (older than 60 years) people—reported in Table 8 —reveal a positive relationship between the emigration of household members and evaluative well-being (BPL) and positive affect across the three groups (Panels A and B). Remittance receipt tends to be more important for the elderly, which could suggest that migrant remittances may act as an old-age safety net. Remittances further offset the increased stress among young people whose household members have recently gone abroad (Panel C). The emigration of family members is associated with a higher likelihood of feeling depressed among young and especially mid-age people. Importantly, we do not observe any statistically significant relationship between emigration of family members and negative affect (stress or depression) among the elderly (Panel D). This finding contradicts the negative association between out-migration and mental health of the elderly left behind typically found in the existing country studies (Adhikari et al., 2011;

[13] Another useful exercise, which we leave for future research, would be to check if less well-off people in poorer countries benefit from remittances more than their counterparts in richer countries – this could be because less well-off people in richer countries enjoy a better provision of public services and access to amenities.

Marchetti-Mercer, 2012; Scheffel & Zhang, 2015; Xie et al., 2014) but is consistent with the studies showing causal effects (Böhme et al., 2015; Gibson et al., 2011; Waidler et al., 2016).

[INSERT TABLE 8 ABOUT HERE]

Finally, the estimates by gender (Table 9) suggest that the emigration of family members is linked with higher life evaluations (BPL) and positive affect for both women and men (Panels A and B); however, remittances drive the association with positive affect for men, but are insignificant for women (Panel B). The most pronounced gender differences concern the stress specifications (Panel C): the emigration of family members is associated with more stress among women but not men, which could be related to the increase in work time among women but not men, after members migrate (Chang et al., 2011). Finally, both women and men are more likely to report depression when a household member is abroad, although the coefficient estimate for women is greater in terms of magnitude and statistical significance.

[INSERT TABLE 9 ABOUT HERE]

Overall, the results suggest that the emigration of family members triggers more negative emotions among women rather than men. This could be due to the fact that in places where gender rights are compromised, women may be unprotected in the absence of the emigrated family members, often husbands, and may have little control over the remittances. Studies from Bangladesh and Angola suggest that male relatives may threaten women left behind and completely take over the remittances, thus leaving women in distress (Lopez-Ekra et al., 2011). Evidence from Nepal suggests that remittances may not be associated with higher subjective well-being for the left-behind wives living with their in-laws (Gartaula et al., 2012). This result warrants further exploration, especially in

light of the extant literature, which shows that adaptation to positive and negative life events is similar across gender (Frey et al., 2014).

3.3. Robustness Checks

We performed several robustness checks. First, we wanted to understand to what extent the main findings are influenced by the sample composition of countries across the years and whether the availability of some countries in more than one year biases the findings. Specifically, since we limit the sample to when both the *Relatives Abroad* and the *Remittances* variables are non-missing, our main estimation sample spans the years 2009-2012. In addition, while our 2009 sample comprises 112 countries, only 26 countries (located in Latin America and the Western Balkans) and 7 countries (located in the Western Balkans) could be included in the 2010 and 2011 analyses, respectively (See Table A2 in the Appendix). While we are limited by data availability, we offer a series of robustness checks that demonstrate that sample composition is not the driver of our main findings and conclusions.

[INSERT TABLE 10 ABOUT HERE]

First, we furnish specifications using data for 2009 only, which are not substantively different from the full sample (2009-2011) results (Table 10). Second, we have also separately estimated the models for the seven Western Balkans countries, the only country group that appears in all three years. The results shown in Table 11 demonstrate that the coefficient estimates on the key variables are mostly statistically insignificant or sufficiently different from those in the full sample (Table 1), meaning that the inclusion of the Western Balkan countries in three years does not drive the main estimates. This is true regardless of whether we estimate these regressions with country and year

dummies or with country×year fixed effects (Table 11 Panel A vs. Panel B). Finally, we also conducted weighted regressions, whereby observations from countries that appear in the regressions just once are given a weight of 1, observations from countries that appear in the regressions twice receive a weight of 0.5, and observations from countries that appear in the regressions three times, receive a weight of 0.33. The results, presented in Table 12, do not differ substantively from the main findings reported in Table 1. In summary, the series of checks presented in Tables 10-12 provide evidence that our results are not biased because of the greater availability of some countries compared to others.

[INSERT TABLE 11 ABOUT HERE]

[INSERT TABLE 12 ABOUT HERE]

A second concern related to our analysis is that the results we should could be driven by the selection of individuals into migration. First, there is selection into migration across households within the same country, and second, there is selection within the household members regarding which family member emigrates (Gibson et al., 2011). Using information on family members who were selected to emigrate from Tonga to New Zealand using a migration lottery, Gibson et al. (2011) compare experimental and non-experimental findings to assess to what extent selection is a problem. They conclude that while selection is an issue when comparing outcomes at the household level, selection is not a problem when examining individual-level outcomes, which is the case in our paper.

We are limited in our ability to tackle endogeneity issues directly, as explained in section 3.4. Nevertheless, we provide some suggestive evidence on whether selection issues could be entirely driving our results. Specifically, we rely on a method that involves: (i) a pre-processing step to create comparable groups of respondents with and without family members abroad using entropy balancing (Hainmueller, 2012)[14]; and (ii) estimating a weighted regression using the entropy balancing weights

[14] We rely on the user-written command *ebalance* in Stata (Hainmueller & Xu, 2013).

generated in the pre-processing step whereby we regress having a family member abroad on subjective well-being and the other controls. Entropy balancing is similar to traditional statistical matching techniques but is arguably superior to them (Hainmueller, 2012) while allowing us to also to mitigate issues related to selection into migration across households.[15] The regressions using the entropy balancing weights are presented in Table 13. These findings deviate very little from the main findings presented in Table 1, suggesting that selection is not the primary driver behind these results. Admittedly, we cannot say much on selection on unobservables using the entropy balancing method, but the findings in Table 13 provide some reassurance that selection is not the main mechanism behind the patterns we describe. [16]

[INSERT TABLE 13 ABOUT HERE]

Our final robustness check, reported in Table 14, involves using a different independent variable, namely having relatives and friends abroad (rather than having a relative abroad who left in the last 5 years as in the main specifications). Specifically, the variable is based on a question asking respondents: "Do you have relatives or friends who are living in another country whom you can count on to help you when you need them, or not?" (Gallup, Inc., 2005-2016). This variable is a closer measure of networks of friends and family members abroad rather than of left behind status (the correlation coefficient between the relatives abroad variable used in our main analyses and this

[15] More precisely, entropy balancing is more efficient and reduces covariate imbalance compared with techniques such as Propensity Score Matching (PSM). Unlike more traditional matching techniques such as PSM, which is usually implemented using an iterative trial and error process and requires researcher judgment regarding the tolerance level and the included covariates, entropy balancing achieves covariate balance by weighting the sample units. Entropy balancing also allows to balance on other moments of the covariate distribution such as the variance and kurtosis. In this paper, we balance on the mean and covariance of the covariates (see Table A4 for the balancing tests). Finally, unlike with PSM, in which some observations are dropped due to matching, the entropy balancing weights deviate as little as possible from base weights to prevent loss of information and maintain efficiency (Hainmueller, 2012).

[16] Results showing the determinants of having relatives abroad and remittance receipt are available in Table A8 in the Appendix.

variable concerning networks abroad is 0.36). The results presented in Table 14 are similar to the ones in the main specification using the relatives abroad variable (Table 1).[17]

[INSERT TABLE 14 ABOUT HERE]

3.4. Limitations

While we view this work as a step towards understanding the linkages between emigration and the different subjective well-being dimensions (evaluative well-being, positive hedonic well-being, stress, and depression) of those left behind in a wide range of origin countries, our results cannot be interpreted as causal. Panel data tracing migrants and those left behind over time or a credible instrument for the out-migration of family members could help to address some sources of endogeneity (specifically, time-invariant respondent heterogeneity) and represent directions for future research. However, this line of inquiry would involve a trade-off between the panel dimension and geographical breadth, as multi-country longitudinal surveys require large financial resources and hence are rare.

Another limitation that we acknowledge is that we lack information on: (i) the relationship between the emigrated household member and the survey respondent (i.e. we do not know whether the emigrants are partners, children, parents or siblings); (ii) what characteristics migrants have (age, gender, education, etc.); (iii) when exactly in the past five years the migrant left and whether they are abroad permanently or temporarily; and (iv) the exact type of migrant remittances (monetary or in-kind) and the monetary amount of the remittances. The fact that we have relatively "recent"

[17] A notable difference includes the results presented in Model (8) whereby having a network of family and friends abroad on whom to rely on in times of need is negatively associated with depression reports but receiving remittances is positively associated with depression. We leave the investigation of why it might be so for future research.

migrants—rather than those who have been living abroad for more than five years—suggests that we are capturing the short- to medium-run well-being consequences of emigration for the relatives left behind. Yet, the associations we document are small in magnitude. We expect that our results would be less significant or even smaller in magnitude if households with migrants who left a long time ago were considered, given that these households would have had sufficient time to adjust to and cope with being left behind.

While the Gallup World Poll is remarkably detailed, it has not been specifically designed to study migration and is not a household-level survey. If possible, future research should consider migrant characteristics, given that they may have a differential impact on the well-being of those staying behind. Practically, the level of detail available in a survey would again need to be weighed against its geographical breadth.

Finally, given that our analysis samples cover only the adult population in each country, we do not have information on young children under age 15 who are left behind. Nonetheless, the literature highlights that the issue of left-behind children should be devoted particular attention especially given the increasing number of female labor migrants.

4. Conclusion

This paper examined the broad subjective well-being consequences of migration for migrant relatives staying behind, as reflected in life evaluations, positive and negative emotions, and depressions experiences. Using 2009-2011 Gallup World Poll data for 114 countries, we are the first to explore the association between emigration and the subjective well-being of those staying behind across a wide range of sending countries. We find that people with family members abroad have higher levels of evaluative well-being (BPL) and positive affect than people from non-migrant households. At the same time, those staying behind are also more likely to experience stress and depression. Migrant remittances appear to amplify the positive associations related to evaluative well-being and positive

emotions but do not contribute to reducing stress and depression. As a whole, these findings suggest that the emigration of family members triggers a range of subjective well-being responses among those staying behind.

We find that the broad country group context is important for understanding the relationship between migration-related variables and the well-being of those staying behind. One of the most distinct results of this study is that remittances are particularly beneficial for life evaluations in poorer and more unequal countries, probably because they increase the opportunities and capabilities of respondents in such circumstances. At the same time, migrant relatives in Latin America and Africa, as well as countries with relatively low out-migration rates, are particularly likely to report depression, while migrant relatives in transition economies are more likely to experience stress. Higher depression and stress levels are also reported among migrant relatives and remittance recipients in developed countries, which is a previously-undocumented result. Among richer countries, meanwhile, only the emigration of family members is positively associated with life evaluations, while remittances have no additional association.

In addition to the result that remittances are most beneficial in poorer countries, we show that remittances most strongly benefit people with lower levels of education. We do not find that the elderly suffer more than other age groups when family members emigrate; indeed, if anything, the elderly may be the main beneficiaries of migration in terms of terms of evaluative well-being, while the middle-aged are the most likely to report depression when family members migrate. Finally, the emigration of household members tends to be associated with more stress and depression among women compared with men.

With a billion internal and international migrants worldwide, the well-being of those left behind is a policy-pertinent topic (Démurger, 2015). Despite not being causal, our results suggest that decision-makers in specific sending countries could design policies to mitigate the negative

experiences of stress and depression for vulnerable groups of household members staying behind, such as women. Some societies and communities in which migration is common already have informal groups in place that help with information sharing or preparing for migration (Cattaneo, 2015; Gallego & Mendola, 2013). Facilitating such formal or informal support groups and stress and depression prevention programs for those with household members abroad could be socially beneficial.

Finally, our findings also demonstrate the role of emigration and remittances for subjective well-being of those staying behind in poorer countries. However, while the out-migration of family members and remittances could improve well-being through easing budget constraints and providing financial security, it is a complement rather than a substitute for economic and institutional development.

Conflict of Interest: The authors declare that they have no conflict of interest.

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Table 1
Emigration of family members, remittances and subjective well-being of those staying behind, full sample, Ordinary Least Squares results, 2009-2011

	Best Possible Life (0/10)		Positive Affect (0/10)		Stress (0/1)		Depressed (0/1)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Relatives Abroad	0.116***	0.085***	0.133***	0.108***	0.009**	0.010***	0.009***	0.008***
	(0.015)	(0.016)	(0.027)	(0.029)	(0.004)	(0.004)	(0.003)	(0.003)
Remittances	-	0.112***	-	0.090**	-	-0.004	-	0.001
	-	(0.020)	-	(0.037)	-	(0.005)	-	(0.004)
Ages 36-60	-0.232***	-0.232***	-0.471***	-0.471***	-0.006*	-0.006*	0.015***	0.015***
	(0.012)	(0.012)	(0.022)	(0.022)	(0.003)	(0.003)	(0.002)	(0.002)
Over 60	-0.193***	-0.194***	-0.617***	-0.617***	-0.098***	-0.098***	-0.013***	-0.013***
	(0.019)	(0.019)	(0.033)	(0.033)	(0.004)	(0.004)	(0.003)	(0.003)
Age Missing	-0.223***	-0.223***	-0.429***	-0.429***	0.049**	0.049**	0.016	0.016
	(0.083)	(0.083)	(0.141)	(0.141)	(0.020)	(0.020)	(0.014)	(0.014)
Female	0.107***	0.106***	0.095***	0.095***	0.021***	0.021***	0.007***	0.007***
	(0.010)	(0.010)	(0.019)	(0.019)	(0.002)	(0.002)	(0.002)	(0.002)
Married/Living with Partner	0.036***	0.038***	0.150***	0.151***	0.000	0.000	-0.015***	-0.015***
	(0.011)	(0.011)	(0.021)	(0.021)	(0.003)	(0.003)	(0.002)	(0.002)
Marital Status Missing	-0.056	-0.055	0.101	0.102	0.006	0.006	-0.008	-0.008
	(0.080)	(0.080)	(0.159)	(0.159)	(0.019)	(0.019)	(0.015)	(0.015)
Children in Household	-0.097***	-0.098***	-0.050**	-0.050**	0.018***	0.018***	0.007***	0.007***
	(0.014)	(0.014)	(0.025)	(0.025)	(0.003)	(0.003)	(0.002)	(0.002)
Children Information Missing	-0.028	-0.030	0.220**	0.218**	-0.003	-0.003	0.020**	0.020**
	(0.051)	(0.051)	(0.092)	(0.092)	(0.012)	(0.012)	(0.009)	(0.009)
Household Size	0.130***	0.130***	0.137***	0.137***	-0.002	-0.002	-0.007***	-0.007***
	(0.006)	(0.006)	(0.010)	(0.010)	(0.001)	(0.001)	(0.001)	(0.001)
Household Size^2	-0.004***	-0.004***	-0.005***	-0.005***	0.000	0.000	0.000***	0.000***
	(0.000)	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
2nd Income Quintile	0.397***	0.393***	0.317***	0.313***	-0.016***	-0.016***	-0.022***	-0.022***
	(0.018)	(0.018)	(0.032)	(0.032)	(0.004)	(0.004)	(0.003)	(0.003)
3rd Income Quintile	0.681***	0.674***	0.488***	0.483***	-0.024***	-0.024***	-0.038***	-0.038***
	(0.020)	(0.020)	(0.035)	(0.035)	(0.004)	(0.004)	(0.004)	(0.004)
4th Income Quintile	1.014***	1.007***	0.750***	0.744***	-0.036***	-0.036***	-0.048***	-0.048***
	(0.023)	(0.023)	(0.039)	(0.039)	(0.005)	(0.005)	(0.004)	(0.004)
Richest 20 Percent	1.434***	1.427***	1.097***	1.092***	-0.053***	-0.052***	-0.067***	-0.067***
	(0.027)	(0.027)	(0.047)	(0.047)	(0.006)	(0.006)	(0.004)	(0.005)
Income Missing	0.028	-0.003	0.570	0.547	0.100	0.101	-0.040	-0.041
	(0.707)	(0.707)	(1.089)	(1.088)	(0.120)	(0.120)	(0.095)	(0.095)

Secondary Education	0.314***	0.314***	0.213***	0.213***	0.010***	0.010***	-0.016***	-0.016***
	(0.013)	(0.013)	(0.024)	(0.024)	(0.003)	(0.003)	(0.002)	(0.002)
Tertiary Education	0.579***	0.579***	0.369***	0.369***	0.028***	0.028***	-0.027***	-0.027***
	(0.019)	(0.019)	(0.034)	(0.034)	(0.004)	(0.004)	(0.003)	(0.003)
Education Missing	0.288***	0.288***	0.014	0.013	-0.004	-0.004	-0.028**	-0.028**
	(0.065)	(0.065)	(0.103)	(0.103)	(0.015)	(0.015)	(0.011)	(0.011)
Unemployed	-0.505***	-0.505***	-0.363***	-0.363***	0.006	0.006	0.050***	0.050***
	(0.028)	(0.028)	(0.048)	(0.048)	(0.006)	(0.006)	(0.005)	(0.005)
Out of the Labor Force	0.079***	0.079***	0.137***	0.137***	-0.060***	-0.060***	-0.000	-0.000
	(0.012)	(0.012)	(0.022)	(0.022)	(0.003)	(0.003)	(0.002)	(0.002)
Employment Status Missing	0.075	0.075	-0.129	-0.129	0.012	0.013	-0.014	-0.014
	(0.060)	(0.060)	(0.112)	(0.112)	(0.014)	(0.014)	(0.011)	(0.011)
Pain Yesterday	-0.242***	-0.242***	-1.373***	-1.373***	0.187***	0.187***	0.142***	0.142***
	(0.013)	(0.013)	(0.025)	(0.025)	(0.003)	(0.003)	(0.003)	(0.003)
Pain Information Missing	0.005	0.003	-0.837***	-0.840***	0.085***	0.085***	0.066***	0.066***
	(0.060)	(0.060)	(0.179)	(0.179)	(0.021)	(0.021)	(0.017)	(0.017)
Dissatisfied with Health	-0.772***	-0.771***	-1.339***	-1.339***	0.080***	0.080***	0.080***	0.080***
	(0.015)	(0.015)	(0.030)	(0.030)	(0.004)	(0.004)	(0.003)	(0.003)
Health Satisfaction Missing	-0.311***	-0.314***	-0.959***	-0.960***	0.062***	0.062***	0.030**	0.030**
	(0.060)	(0.060)	(0.135)	(0.135)	(0.015)	(0.015)	(0.012)	(0.012)
Has a Health Problem	-0.138***	-0.139***	-0.184***	-0.185***	0.023***	0.023***	0.039***	0.039***
	(0.014)	(0.014)	(0.026)	(0.026)	(0.003)	(0.003)	(0.003)	(0.003)
Health Problem Missing	-0.111*	-0.111*	-0.163	-0.162	0.013	0.013	0.028**	0.028**
	(0.067)	(0.067)	(0.148)	(0.148)	(0.016)	(0.016)	(0.014)	(0.014)
Religion Important	0.073***	0.073***	0.396***	0.396***	-0.010***	-0.010***	0.001	0.001
	(0.014)	(0.014)	(0.026)	(0.026)	(0.003)	(0.003)	(0.002)	(0.002)
Religiosity Missing	-0.018	-0.019	0.039	0.038	0.016*	0.016*	0.012	0.012
	(0.042)	(0.042)	(0.089)	(0.089)	(0.010)	(0.010)	(0.008)	(0.008)
Large City	0.121***	0.121***	0.043**	0.043**	0.025***	0.025***	0.013***	0.013***
	(0.012)	(0.012)	(0.021)	(0.021)	(0.003)	(0.003)	(0.002)	(0.002)
Location Missing	0.154***	0.153***	0.125*	0.125*	0.013	0.013	0.001	0.001
	(0.046)	(0.046)	(0.064)	(0.064)	(0.010)	(0.010)	(0.007)	(0.007)
Country and Survey Wave Dummies	Y	Y	Y	Y	Y	Y	Y	Y
Observations	142,468	142,468	121,607	121,607	126,803	126,803	126,680	126,680
Adjusted R^2	0.282	0.282	0.198	0.198	0.109	0.109	0.104	0.104

Source: Authors' estimation based on Gallup World Poll data

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The omitted categories are: ages 15-35; completed primary education; married or living with partner; poorest 20%; no children in the household; small city/village; employed (full- or part-time, or self-employed); religion unimportant; no pain yesterday; satisfied with personal health; no health problem. Dummy variables for missing observations for each variable included but not reported. See Tables A1 and A2 in the Appendix for variable definitions and the list of countries included in each survey wave.

Table 2
Emigration, remittances and subjective well-being of those staying behind, by country income group, 2009-2011.

	A: Best Possible Life (0/10)							
	High-income countries		Upper-middle income countries		Lower-middle income countries		Low-income countries	
Relatives Abroad	0.091**	0.097***	0.138***	0.120***	0.118***	0.063**	0.102***	0.052
	(0.037)	(0.038)	(0.029)	(0.031)	(0.025)	(0.027)	(0.032)	(0.036)
Remittances		-0.096		0.071*		0.184***		0.127***
		(0.075)		(0.038)		(0.033)		(0.039)
Observations	28,458	28,458	46,325	46,325	46,733	46,733	20,952	20,952
Adjusted R^2	0.253	0.253	0.259	0.259	0.191	0.192	0.155	0.155
	B: Positive Affect Index (0/10)							
	High-income countries		Upper-middle income countries		Lower-middle income countries		Low-income countries	
Relatives Abroad	0.067	0.063	0.090*	0.095*	0.198***	0.151***	0.110	0.061
	(0.078)	(0.078)	(0.048)	(0.051)	(0.043)	(0.047)	(0.068)	(0.075)
Remittances		0.069		-0.019		0.148***		0.127
		(0.170)		(0.065)		(0.056)		(0.085)
Observations	23,727	23,727	42,976	42,976	36,220	36,220	18,684	18,684
Adjusted R^2	0.162	0.161	0.226	0.226	0.198	0.199	0.209	0.209
	C: Stress Yesterday (0/1)							
	High-income countries		Upper-middle income countries		Lower-middle income countries		Low-income countries	
Relatives Abroad	0.020*	0.018*	0.005	0.007	0.012**	0.011*	-0.000	0.004
	(0.010)	(0.011)	(0.006)	(0.007)	(0.006)	(0.006)	(0.007)	(0.008)
Remittances		0.020		-0.007		0.001		-0.012
		(0.022)		(0.008)		(0.008)		(0.009)
Observations	24,828	24,828	45,143	45,143	37,887	37,887	18,945	18,945
Adjusted R^2	0.086	0.086	0.092	0.092	0.131	0.131	0.121	0.121
	D: Depressed Yesterday (0/1)							
	High-income countries		Upper-middle income countries		Lower-middle income countries		Low-income countries	
Relatives Abroad	0.004	0.001	0.005	0.007	0.013***	0.014***	0.007	0.003
	(0.007)	(0.007)	(0.005)	(0.005)	(0.005)	(0.005)	(0.007)	(0.008)
Remittances		0.045***		-0.006		-0.003		0.010
		(0.017)		(0.006)		(0.006)		(0.008)
Observations	24,805	24,805	45,121	45,121	37,822	37,822	18,932	18,932
Adjusted R^2	0.096	0.097	0.094	0.094	0.114	0.114	0.117	0.117

Source: Authors' estimation based on Gallup World Poll data
Notes. Robust standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1. Country- and year-fixed effects and individual controls are included in all regressions. Full econometric output is available upon request. See Table A2 of the Appendix for country group lists.

Table 3
Emigration, remittances and subjective well-being of those staying behind, by Human Development Index (HDI) classification, 2009-2011

	Panel A: Best Possible Life (0/10)							
	Very High HDI		High HDI		Medium HDI		Low HDI	
Relatives Abroad (1=Yes)	0.095***	0.101***	0.126***	0.102***	0.113***	0.059*	0.107***	0.046
	(0.034)	(0.034)	(0.025)	(0.027)	(0.031)	(0.033)	(0.032)	(0.036)
Remittances (1=Yes)		-0.062		0.086**		0.179***		0.160***
		(0.059)		(0.034)		(0.041)		(0.038)
Observations	35,724	35,724	54,079	54,079	30,063	30,063	22,602	22,602
Adjusted R^2	0.242	0.242	0.277	0.278	0.177	0.177	0.153	0.154
	Panel B: Positive Affect Index (0/10)							
	Very High HDI		High HDI		Medium HDI		Low HDI	
Relatives Abroad (1=Yes)	0.023	0.051	0.173***	0.136***	0.212***	0.171***	-0.007	-0.065
	(0.066)	(0.067)	(0.044)	(0.047)	(0.050)	(0.054)	(0.071)	(0.079)
Remittances (1=Yes)		-0.287**		0.128**		0.128**		0.146*
		(0.123)		(0.058)		(0.065)		(0.088)
Observations	30,608	30,608	48,151	48,151	25,249	25,249	17,599	17,599
Adjusted R^2	0.171	0.171	0.236	0.236	0.171	0.171	0.182	0.182
	Panel C: Stress Yesterday (0/1)							
	Very High HDI		High HDI		Medium HDI		Low HDI	
Relatives Abroad (1=Yes)	0.017*	0.017*	0.009	0.009	0.006	0.006	0.003	0.012
	(0.009)	(0.009)	(0.006)	(0.006)	(0.006)	(0.007)	(0.008)	(0.009)
Remittances (1=Yes)		0.007		-0.002		0.000		-0.022**
		(0.015)		(0.008)		(0.009)		(0.010)
Observations	32,044	32,044	50,887	50,887	26,112	26,112	17,760	17,760
Adjusted R^2	0.085	0.085	0.103	0.103	0.140	0.140	0.114	0.114
	Panel D: Depressed Yesterday (0/1)							
	Very High HDI		High HDI		Medium HDI		Low HDI	
Relatives Abroad (1=Yes)	0.008	0.006	0.006	0.009*	0.002	0.001	0.026***	0.023***
	(0.006)	(0.006)	(0.004)	(0.005)	(0.006)	(0.006)	(0.007)	(0.008)
Remittances (1=Yes)		0.022*		-0.010*		0.004		0.008
		(0.011)		(0.006)		(0.007)		(0.009)
Observations	32,022	32,022	50,826	50,826	26,087	26,087	17,745	17,745
Adjusted R^2	0.099	0.099	0.098	0.098	0.104	0.104	0.123	0.123

Source: Authors' estimation based on Gallup World Poll data

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Country- and year-fixed effects and individual controls are included in all regressions. Full econometric output is available upon request. The 2010 Human Development Index country classification was used (See Table A2 of the Appendix).

Table 4
Emigration, remittances and subjective well-being of those staying behind, by income inequality (Gini coefficient) quartiles, 2009-2011

	Panel A: Best Possible Life (0/10)							
	Quartile 1 (Most equal countries)		Quartile 2		Quartile 3		Quartile 4 (Most unequal countries)	
Relatives Abroad (1=Yes)	0.073**	0.060*	0.095***	0.082**	0.115***	0.041	0.163***	0.124***
	(0.029)	(0.031)	(0.031)	(0.033)	(0.034)	(0.038)	(0.029)	(0.030)
Remittances (1=Yes)		0.046		0.059		0.205***		0.161***
		(0.037)		(0.043)		(0.044)		(0.040)
Observations	35,358	35,358	32,791	32,791	27,488	27,488	41,153	41,153
Adjusted R^2	0.262	0.262	0.329	0.329	0.287	0.287	0.226	0.226
	Panel B: Positive Affect Index (0/10)							
	Quartile 1 (Most equal countries)		Quartile 2		Quartile 3		Quartile 4 (Most unequal countries)	
Relatives Abroad (1=Yes)	0.214***	0.194***	-0.015	-0.029	0.096	-0.030	0.181***	0.185***
	(0.060)	(0.064)	(0.068)	(0.071)	(0.065)	(0.072)	(0.041)	(0.043)
Remittances (1=Yes)		0.068		0.057		0.332***		-0.015
		(0.079)		(0.095)		(0.080)		(0.057)
Observations	30,111	30,111	27,206	27,206	24,241	24,241	38,287	38,287
Adjusted R^2	0.190	0.190	0.213	0.213	0.208	0.208	0.121	0.121
	Panel C: Stress Yesterday (0/1)							
	Quartile 1 (Most equal countries)		Quartile 2		Quartile 3		Quartile 4 (Most unequal countries)	
Relatives Abroad (1=Yes)	0.012*	0.013*	0.000	0.002	0.013	0.021**	0.007	0.006
	(0.007)	(0.008)	(0.008)	(0.009)	(0.008)	(0.009)	(0.006)	(0.006)
Remittances (1=Yes)		-0.004		-0.007		-0.021**		0.004
		(0.009)		(0.011)		(0.010)		(0.008)
Observations	32,269	32,269	28,076	28,076	25,451	25,451	39,115	39,115
Adjusted R^2	0.091	0.091	0.100	0.100	0.139	0.139	0.112	0.112
	Panel D: Depressed Yesterday (0/1)							
	Quartile 1 (Most equal countries)		Quartile 2		Quartile 3		Quartile 4 (Most unequal countries)	
Relatives Abroad (1=Yes)	-0.004	-0.006	0.004	0.006	0.020***	0.017**	0.014***	0.014***
	(0.005)	(0.006)	(0.006)	(0.006)	(0.006)	(0.007)	(0.005)	(0.005)
Remittances (1=Yes)		0.006		-0.009		0.007		-0.002
		(0.007)		(0.009)		(0.008)		(0.007)
Observations	32,222	32,222	28,050	28,050	25,429	25,429	39,088	39,088
Adjusted R^2	0.114	0.114	0.103	0.103	0.089	0.089	0.113	0.112

Source: Authors' estimation based on Gallup World Poll data
Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Country and year fixed effects and individual controls are included in all regressions. Full econometric output is available upon request. Country classifications are based on Gini coefficient data from the WDI and UNU-WIDER World Income Inequality Database, 2007-2011. The quartiles are as follows: 1 = 1st quartile (most equal countries, GINI between 24 and 32.13); 2 = 2nd quartile (GINI between 32.84 and 37); 3 = 3rd quartile (GINI between 37.19 and 45); 4 = 4th quartile (most unequal countries, GINI between 45.13 and 63). Full econometric output is available on request. See Table A2 of the Appendix for the list of countries in each category.

Table 5

Emigration, remittances and subjective well-being of those staying behind, by region, 2009-2011.

	A: Best Possible Life (0/10)															
	East Asia and Pacific		Western Europe		Transition		Latin America and the Caribbean		Middle East and North Africa		North America		South Asia		Sub-Saharan Africa	
Relatives Abroad	0.148***	0.102*	0.077	0.079	0.063**	0.048	0.145***	0.104***	0.146***	0.143***	-0.475***	-0.474***	0.158**	0.072	0.122***	0.056
	(0.057)	(0.061)	(0.058)	(0.058)	(0.028)	(0.030)	(0.032)	(0.033)	(0.042)	(0.044)	(0.162)	(0.162)	(0.070)	(0.081)	(0.034)	(0.038)
Remittances		0.210**		-0.086		0.045		0.175***		0.023		-0.234		0.279***		0.164***
		(0.091)		(0.165)		(0.033)		(0.045)		(0.070)		(0.265)		(0.106)		(0.040)
Observations	13,021	13,021	11,708	11,708	38,739	38,739	34,547	34,547	13,579	13,579	1,990	1,990	8,516	8,516	20,368	20,368
Adjusted R^2	0.219	0.219	0.208	0.208	0.215	0.215	0.184	0.184	0.259	0.259	0.148	0.148	0.157	0.157	0.148	0.149
	B: Positive Affect Index (0/10)															
	East Asia and Pacific		Western Europe		Transition		Latin America and the Caribbean		Middle East and North Africa		North America		South Asia		Sub-Saharan Africa	
Relatives Abroad	0.258**	0.229**	0.003	0.003	0.153***	0.118**	0.194***	0.190***	-0.020	-0.003	-0.757**	-0.756**	0.102	0.071	0.039	-0.028
	(0.108)	(0.114)	(0.104)	(0.104)	(0.055)	(0.060)	(0.041)	(0.043)	(0.405)	(0.403)	(0.304)	(0.304)	(0.129)	(0.142)	(0.069)	(0.078)
Remittances		0.139		-0.012		0.104		0.015		1.456***		-0.140		0.100		0.164*
		(0.145)		(0.271)		(0.068)		(0.058)		(0.524)		(0.528)		(0.188)		(0.085)
Observations	12,551	12,551	11,429	11,429	35,208	35,208	33,689	33,689	937	937	1,979	1,979	8,369	8,369	17,445	17,445
Adjusted R^2	0.175	0.175	0.095	0.094	0.190	0.190	0.099	0.099	0.095	0.099	0.081	0.081	0.193	0.193	0.184	0.184
	C: Stress Yesterday (0/1)															
	East Asia and Pacific		Western Europe		Transition		Latin America and the Caribbean		Middle East and North Africa		North America		South Asia		Sub-Saharan Africa	
Relatives Abroad	0.013	0.017	0.010	0.010	0.016***	0.017**	0.003	0.002	0.028	0.027	0.064	0.064	-0.020	-0.011	0.009	0.015
	(0.015)	(0.016)	(0.015)	(0.015)	(0.006)	(0.007)	(0.006)	(0.007)	(0.056)	(0.057)	(0.043)	(0.043)	(0.014)	(0.016)	(0.008)	(0.009)
Remittances		-0.019		0.015		-0.003		0.003		-0.035		-0.019		-0.028		-0.015
		(0.023)		(0.042)		(0.008)		(0.009)		(0.088)		(0.083)		(0.022)		(0.010)
Observations	12,996	12,996	11,754	11,754	38,548	38,548	34,490	34,490	963	963	1,995	1,995	8,481	8,481	17,576	17,576
Adjusted R^2	0.145	0.145	0.090	0.090	0.092	0.092	0.103	0.103	0.039	0.038	0.114	0.114	0.120	0.120	0.109	0.109
	D: Depressed Yesterday (0/1)															
	East Asia and Pacific		Western Europe		Transition		Latin America and the Caribbean		Middle East and North Africa		North America		South Asia		Sub-Saharan Africa	
Relatives Abroad	0.000	-0.004	-0.012	-0.013	0.006	0.008	0.013***	0.014***	-0.062*	-0.061*	0.045	0.044	-0.003	-0.008	0.022***	0.022***
	(0.011)	(0.012)	(0.008)	(0.008)	(0.005)	(0.005)	(0.005)	(0.005)	(0.033)	(0.033)	(0.027)	(0.027)	(0.013)	(0.015)	(0.007)	(0.008)
Remittances		0.021		0.022		-0.006		-0.002		0.039		0.054		0.016		0.000
		(0.019)		(0.026)		(0.006)		(0.007)		(0.075)		(0.063)		(0.020)		(0.008)
Observations	12,975	12,975	11,747	11,747	38,480	38,480	34,469	34,469	965	965	1,994	1,994	8,486	8,486	17,564	17,564
Adjusted R^2	0.101	0.101	0.090	0.090	0.092	0.092	0.114	0.114	0.054	0.053	0.122	0.122	0.124	0.123	0.093	0.093

Source: Authors' estimation based on Gallup World Poll data

Notes. Robust standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1. Country- and year-fixed effects, and individual controls are included in all regressions. Tables A1 and A2 in the appendix include variable definitions and the list of countries included in each survey wave.

Table 6
Emigration, remittances and subjective well-being of those staying behind, by net migration rate quartile, 2009-2011

	A: Best Possible Life (0/10)							
	Quartile 1 (Highest net migration rate)		Quartile 2		Quartile 3		Quartile 4 (Lowest net migration rate)	
Relatives Abroad	0.118***	0.052	0.134***	0.085***	0.089***	0.112***	0.118***	0.113***
	(0.030)	(0.032)	(0.025)	(0.027)	(0.031)	(0.033)	(0.039)	(0.040)
Remittances		0.210***		0.149***		-0.096**		0.059
		(0.038)		(0.032)		(0.043)		(0.076)
Observations	28,594	28,594	45,344	45,344	42,776	42,776	25,754	25,754
Adjusted R^2	0.221	0.221	0.226	0.226	0.297	0.297	0.300	0.300
	B: Positive Affect Index (0/10)							
	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Relatives Abroad	0.190***	0.144**	0.166***	0.168***	0.058	0.020	0.024	0.021
	(0.053)	(0.058)	(0.045)	(0.048)	(0.053)	(0.056)	(0.093)	(0.094)
Remittances		0.143**		-0.007		0.160**		0.079
		(0.065)		(0.059)		(0.075)		(0.202)
Observations	23,004	23,004	40,419	40,419	39,983	39,983	18,201	18,201
Adjusted R^2	0.213	0.214	0.209	0.209	0.189	0.189	0.163	0.163
	C: Stress Yesterday (0/1)							
	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Relatives Abroad	-0.001	0.003	0.015***	0.014**	0.001	0.003	0.025*	0.024*
	(0.007)	(0.007)	(0.006)	(0.006)	(0.007)	(0.007)	(0.013)	(0.013)
Remittances		-0.013		0.004		-0.008		0.015
		(0.009)		(0.007)		(0.009)		(0.027)
Observations	23,810	23,810	42,268	42,268	41,695	41,695	19,030	19,030
Adjusted R^2	0.141	0.141	0.095	0.095	0.100	0.100	0.109	0.109
	D: Depressed Yesterday (0/1)							
	Quartile 1		Quartile 2		Quartile 3		Quartile 4	
Relatives Abroad	-0.001	-0.003	0.012***	0.012**	0.017***	0.018***	-0.001	-0.002
	(0.005)	(0.006)	(0.004)	(0.005)	(0.005)	(0.006)	(0.008)	(0.008)
Remittances		0.006		-0.001		-0.005		0.032
		(0.007)		(0.006)		(0.008)		(0.020)
Observations	23,795	23,795	42,187	42,187	41,674	41,674	19,024	19,024
Adjusted R^2	0.107	0.107	0.109	0.109	0.102	0.102	0.081	0.081

Source: Authors' estimation based on Gallup World Poll data

Notes. Robust standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1. Country- and year-fixed effects, and individual controls are included in all regressions. Tables A1 and A2 include variable definitions and the list of countries included in each survey wave.

Table 7
Emigration, remittances and subjective well-being of those staying behind, by education group, Ordinary Least Squares results, 2009-2011

Panel A: Best Possible Life (0/10)						
	Elementary		Secondary		Tertiary	
Relatives Abroad (1=Yes)	0.203***	0.123***	0.069***	0.056***	0.101***	0.096**
	(0.030)	(0.033)	(0.020)	(0.021)	(0.036)	(0.037)
Remittances (1=Yes)	-	0.257***	-	0.051*	-	0.028
	-	(0.040)	-	(0.027)	-	(0.053)
Observations	47,263	47,263	75,293	75,293	18,427	18,427
Adjusted R^2	0.221	0.221	0.269	0.269	0.262	0.262
Panel B: Positive Affect Index (0/10)						
	Elementary		Secondary		Tertiary	
Relatives Abroad (1=Yes)	0.195***	0.177***	0.092**	0.045	0.140**	0.163**
	(0.052)	(0.056)	(0.037)	(0.040)	(0.068)	(0.071)
Remittances (1=Yes)	-	0.057	-	0.169***	-	-0.111
	-	(0.069)	-	(0.050)	-	(0.098)
Observations	40,577	40,577	64,007	64,007	15,593	15,593
Adjusted R^2	0.230	0.230	0.188	0.188	0.150	0.150
Panel C: Stress Yesterday (0/1)						
	Elementary		Secondary		Tertiary	
Relatives Abroad (1=Yes)	0.006	0.015**	0.008	0.006	0.012	0.011
	(0.006)	(0.007)	(0.005)	(0.005)	(0.010)	(0.010)
Remittances (1=Yes)	-	-0.027***	-	0.008	-	0.002
	-	(0.008)	-	(0.006)	-	(0.013)
Observations	41,878	41,878	67,012	67,012	16,442	16,442
Adjusted R^2	0.120	0.120	0.106	0.106	0.100	0.100
Panel D: Depressed Yesterday (0/1)						
	Elementary		Secondary		Tertiary	
Relatives Abroad (1=Yes)	0.009*	0.009	0.012***	0.012***	-0.001	-0.003
	(0.005)	(0.006)	(0.004)	(0.004)	(0.006)	(0.007)
Remittances (1=Yes)	-	0.001	-	0.000	-	0.011
	-	(0.007)	-	(0.005)	-	(0.009)
Observations	41,854	41,854	66,937	66,937	16,424	16,424
Adjusted R^2	0.124	0.124	0.085	0.085	0.082	0.082

Source: Authors' estimation based on Gallup World Poll data
Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Country- and year-fixed effects and individual controls are included in all regressions. Full econometric output is available upon request.
*** p<0.01, ** p<0.05, * p<0.1

Table 8
Emigration of family members, remittances, and subjective well-being of those staying behind, by age group, Ordinary Least Squares results, 2009-2011

Panel A: Best Possible Life (0/10)						
	Ages 15-35		Ages 36-60		Over 60	
Relatives Abroad (1=Yes)	0.106***	0.075***	0.077***	0.056**	0.199***	0.157***
	(0.021)	(0.023)	(0.025)	(0.027)	(0.042)	(0.045)
Remittances (1=Yes)	-	0.109***	-	0.084**	-	0.156***
	-	(0.027)	-	(0.035)	-	(0.060)
Observations	65,446	65,446	55,599	55,599	20,843	20,843
Adjusted R^2	0.274	0.274	0.284	0.284	0.327	0.327
Panel B: Positive Affect Index (0/10)						
	Ages 15-35		Ages 36-60		Over 60	
Relatives Abroad (1=Yes)	0.084**	0.078*	0.143***	0.107**	0.171**	0.115
	(0.038)	(0.041)	(0.047)	(0.050)	(0.072)	(0.077)
Remittances (1=Yes)	-	0.021	-	0.139**	-	0.209*
	-	(0.049)	-	(0.064)	-	(0.107)
Observations	54,224	54,224	47,944	47,944	18,907	18,907
Adjusted R^2	0.129	0.129	0.195	0.195	0.315	0.315
Panel C: Stress Yesterday (0/1)						
	Ages 15-35		Ages 36-60		Over 60	
Relatives Abroad (1=Yes)	0.006	0.015**	0.008	0.006	0.012	0.011
	(0.006)	(0.007)	(0.005)	(0.005)	(0.010)	(0.010)
Remittances (1=Yes)	-	-0.027***	-	0.008	-	0.002
	-	(0.008)	-	(0.006)	-	(0.013)
Observations	41,878	41,878	67,012	67,012	16,442	16,442
Adjusted R^2	0.120	0.120	0.106	0.106	0.100	0.100
Panel D: Depressed Yesterday (0/1)						
	Ages 15-35		Ages 36-60		Over 60	
Relatives Abroad (1=Yes)	0.009*	0.009	0.012***	0.012***	-0.001	-0.003
	(0.005)	(0.006)	(0.004)	(0.004)	(0.006)	(0.007)
Remittances (1=Yes)	-	0.001	-	0.000	-	0.011
	-	(0.007)	-	(0.005)	-	(0.009)
Observations	41,854	41,854	66,937	66,937	16,424	16,424
Adjusted R^2	0.124	0.124	0.085	0.085	0.082	0.082

Source: Authors' estimation based on Gallup World Poll data
Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Country and year fixed effects and individual controls are included in all regressions. Full econometric output is available upon request.

Table 9

Emigration, remittances and subjective well-being of those staying behind, by gender, Ordinary Least Squares results, 2009-2011

Panel A: Best Possible Life (0/10)				
	Female	Female	Male	Male
Relatives Abroad (1=Yes)	0.140***	0.109***	0.088***	0.058**
	(0.021)	(0.022)	(0.022)	(0.023)
Remittances (1=Yes)	-	0.110***	-	0.112***
	-	(0.028)	-	(0.030)
Observations	76,687	76,687	65,781	65,781
Adjusted R^2	0.287	0.287	0.277	0.277
Panel B: Positive Affect Index (0/10)				
	Female	Female	Male	Male
Relatives Abroad (1=Yes)	0.156***	0.147***	0.103**	0.058
	(0.038)	(0.040)	(0.040)	(0.043)
Remittances (1=Yes)	-	0.031	-	0.164***
	-	(0.051)	-	(0.054)
Observations	66,392	66,392	55,215	55,215
Adjusted R^2	0.204	0.204	0.193	0.193
Panel C: Stress Yesterday (0/1)				
	Female	Female	Male	Male
Relatives Abroad (1=Yes)	0.016***	0.016***	0.000	0.003
	(0.005)	(0.005)	(0.005)	(0.005)
Remittances (1=Yes)	-	0.002	-	-0.011
	-	(0.006)	-	(0.007)
Observations	69,188	69,188	57,615	57,615
Adjusted R^2	0.114	0.114	0.102	0.102
Panel D: Depressed Yesterday (0/1)				
	Female	Female	Male	Male
Relatives Abroad (1=Yes)	0.010**	0.009**	0.007*	0.007*
	(0.004)	(0.004)	(0.004)	(0.004)
Remittances (1=Yes)	-	0.001	-	0.002
	-	(0.005)	-	(0.005)
Observations	69,120	69,120	57,560	57,560
Adjusted R^2	0.107	0.107	0.099	0.099

Source: Authors' estimation based on Gallup World Poll data

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Country- and year-fixed effects and individual controls are included in all regressions. Full econometric output is available upon request.

*** p<0.01, ** p<0.05, * p<0.1

Table 10

Emigration of family members, remittances and subjective well-being of those staying behind, Ordinary Least Squares results, 2009 only

	BPL (0/10)		Positive Affect (0/10)		Stress (0/1)		Depressed (0/1)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Relatives Abroad	0.103***	0.075***	0.109***	0.071**	0.010**	0.010**	0.008***	0.007*
	(0.017)	(0.018)	(0.033)	(0.036)	(0.004)	(0.005)	(0.003)	(0.004)
Remittances	-	0.105***	-	0.137***	-	-0.001	-	0.006
	-	(0.024)	-	(0.045)	-	(0.006)	-	(0.005)
Observations	111,561	111,561	91,958	91,958	96,052	96,052	95,946	95,946
Adjusted R^2	0.296	0.296	0.198	0.198	0.119	0.119	0.107	0.107

Source: Authors' estimation based on Gallup World Poll data

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Country and year fixed effects and individual controls are included in all regressions. Full econometric output is available upon request.

Table 11
Emigration of family members, remittances and subjective well-being of those staying behind, Western Balkans, Ordinary Least Squares results, 2009-2011

	Panel A							
	Best Possible Life (0/10)		Positive Affect (0/10)		Stress (0/1)		Depressed (0/1)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Relatives Abroad	0.099***	0.098**	0.104	0.069	0.023***	0.026***	0.005	0.008
	(0.037)	(0.040)	(0.071)	(0.078)	(0.009)	(0.010)	(0.006)	(0.007)
Remittances	-	0.002	-	0.099	-	-0.009	-	-0.009
	-	(0.042)	-	(0.085)	-	(0.010)	-	(0.007)
Country and Survey Wave Dummies	Y	Y	Y	Y	Y	Y	Y	Y
Observations	19,520	19,520	18,313	18,313	19,433	19,433	19,398	19,398
Adjusted R^2	0.174	0.174	0.168	0.168	0.062	0.062	0.093	0.093
	Panel B							
	Best Possible Life (0/10)		Positive Affect (0/10)		Stress (0/1)		Depressed (0/1)	
Relatives Abroad	0.118***	0.115***	0.116	0.076	0.021**	0.025***	0.004	0.007
	(0.037)	(0.040)	(0.071)	(0.077)	(0.009)	(0.010)	(0.006)	(0.007)
Remittances	-	0.009	-	0.113	-	-0.011	-	-0.009
	-	(0.042)	-	(0.085)	-	(0.010)	-	(0.007)
		(0.042)		(0.085)		(0.065)		(0.007)
Country and Survey Wave Dummies	Y	Y	Y	Y	Y	Y	Y	Y
Country×Survey Wave Dummies	Y	Y	Y	Y	Y	Y	Y	Y
Observations	19,520	19,520	18,313	18,313	19,433	19,433	19,398	19,398
Adjusted R^2	0.185	0.185	0.172	0.172	0.064	0.064	0.094	0.094

Source: Authors' estimation based on Gallup World Poll data
Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The Western Balkan countries are: Albania, Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Serbia, and Kosovo. Full econometric output is available upon request.

Table 12
Emigration of family members, remittances and subjective well-being of those staying behind, full sample, Ordinary Least Squares results, 2009-2011, weighted

	BPL (0/10)		Positive Affect (0/10)		Stress (0/1)		Depressed (0/1)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Relatives Abroad	0.112***	0.081***	0.129***	0.097***	0.007**	0.009**	0.008***	0.007**
	(0.015)	(0.016)	(0.030)	(0.032)	(0.004)	(0.004)	(0.003)	(0.003)
Remittances	-	0.119***	-	0.114***	-	-0.005	-	0.005
	-	(0.021)	-	(0.040)	-	(0.005)	-	(0.004)
Observations	142,468	142,468	121,607	121,607	126,803	126,803	126,680	126,680
Adjusted R^2	0.296	0.296	0.198	0.198	0.117	0.117	0.104	0.104

Source: Authors' estimation based on Gallup World Poll data
Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.Notes. Robust standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1. Country- and year-fixed effects, and individual controls are included in all regressions. Full econometric output is available upon request.

Table 13
Emigration of family members, remittances and subjective well-being of those staying behind, full sample, Ordinary Least Squares applied after entropy balancing, 2009-211

	Best Possible Life (0/10)		Positive Affect (0/10)		Stress (0/1)		Depressed (0/1)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Relatives Abroad	0.112***	0.089***	0.135***	0.107***	0.007*	0.010**	0.009***	0.011***
	(0.015)	(0.017)	(0.028)	(0.031)	(0.004)	(0.004)	(0.003)	(0.003)
Remittances		0.088***		0.102**		-0.011*		-0.007
		(0.025)		(0.045)		(0.006)		(0.005)
Observations	142,468	142,468	121,607	121,607	126,803	126,803	126,680	126,680
Adjusted R^2	0.259	0.259	0.196	0.197	0.113	0.113	0.103	0.103

Source: Authors' estimation based on Gallup World Poll data
Notes: Bootstrapped standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. ***p<0.01, **p<0.05, *p<0.1. Country- and year-fixed effects, and individual controls are included in all regressions. Full econometric output is available in Appendix Table A5; Tables A1 and A2 in the Appendix include variable definitions and the list of countries included in each survey wave.

Table 14

Emigration of family members, remittances and subjective well-being of those staying behind, full sample, Ordinary Least Squares results, different key independent variable, 2009-2011

	BPL (0/10)		Positive Affect (0/10)		Stress (0/1)		Depressed (0/1)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Network of relatives and friends abroad	0.186***	0.175***	0.276***	0.281***	0.004	0.004	-0.003	-0.004**
	(0.012)	(0.013)	(0.022)	(0.023)	(0.003)	(0.003)	(0.002)	(0.002)
Remittances		0.047**		-0.025		-0.002		0.008**
		(0.021)		(0.037)		(0.005)		(0.004)
Observations	140,534	140,534	120,101	120,101	125,137	125,137	125,020	125,020
Adjusted R^2	0.284	0.284	0.200	0.200	0.109	0.109	0.104	0.104

Source: Authors' estimation based on Gallup World Poll data

Notes. Robust standard errors in parentheses. ***p<0.01, **p<0.05, *p<0.1. Country- and year-fixed effects, and individual controls are included in all regressions. Full econometric output is available upon request.

Appendix

Table A1: Variable definitions

Variable	Explanation
Dependent Variables	
Evaluative Well-being: Best Possible Life (BPL) (0/10)	The respondent's assessment (on a 0-10 scale) based on the Cantril ladder of life question, whereby respondents are asked to imagine a ladder numbered from zero at the bottom and 10 at the top. Zero represents the worst possible life they can imagine for themselves, while 10 represents the best possible life.
Positive Affect Index (0/10)	An index of positive affect/emotions based on yes/no questions about whether the respondent experienced a lot of happiness yesterday, smiled a lot yesterday and whether she experienced joy yesterday. Constructed using principal component analysis and re-scaled to range from 0 (no positive affect) to 10 (a lot of positive affect).
Stress Yesterday (0/1)	A binary indicator coded as 1 if the respondent experienced a lot of stress the previous day and 0 otherwise.
Depressed Yesterday (0/1)	A binary indicator variable coded as 1 if the respondent experienced a lot of depression the previous day and 0 otherwise.
Focal Independent Variables	
Relative Abroad (1=Yes)	A binary indicator variable coded as 1 if the respondent answered that any members of the household have gone to live in a foreign country permanently or temporarily in the past five years and are still living there. Respondents who have family members who are still there are coded as 1 and those with family members who returned from abroad and no family members abroad in the past five years are coded as 0.
Remittances (1=Yes)	A binary indicator variable based on the question of whether the respondent's household received help in the form of money or goods from another individual in the past 12 months. The variable takes the value of 1 for respondents receive money or goods from an individual abroad and both abroad and from this country, and zero otherwise.
Other Controls	
Per Capita Household Income Quantile Indicators	This variable is based on the Gallup-provided household income in international dollars divided by the household size. Because some respondents did not provide a response to the household income question, we use household income quantile dummies based on within-country income, where 1 corresponds to the poorest 20 percent, 5 corresponds to the richest 20 percent and 6 is an indicator for missing information.
Education Level	Elementary education: completed elementary education or less (up to eight years of basic education); Secondary education: completed secondary education or up to three years of tertiary education (nine to 15 years of education);

	Tertiary education: completed four years of education beyond “high school” and/or received a four-year college degree
Pain Yesterday	A binary indicator variable coded as 1 if the respondent experienced a lot of physical pain the day before and 0 if they did not.
Satisfaction with Personal Health	A binary indicator variable, which is coded as 1 if the respondent indicated that he or she is satisfied with their personal health and 0 if they responded that they are dissatisfied.
Health Problem	A binary indicator coded as 1 if respondents have health problems that prevent them from doing any of the things people their age normally can do and 0 if they do not have such problems.
Household and Demographic Variables	Age, gender, household size, indicator for presence of children in the household, religiosity, marital status, urban/rural location dummy and employment status. Note that religiosity is a binary indicator for whether religion is important in the respondent’s life.

Source: Gallup World Poll Documentation,

Notes: To prevent non-random attrition bias due to missing data, we included indicator dummies for missing information for all variables. The questions pertain to Gallup: Copyright © 2005-2018 Gallup, Inc.

Table A2: Countries included in the analyses, by year and country group

	2009	2010	2011
Countries according to year of interview	Afghanistan Albania Argentina Armenia Azerbaijan Bahrain Bangladesh Belarus Bolivia Bosnia and Herzegovina Brazil Burundi Cambodia Cameroon Canada Chad Chile China Colombia Comoros Congo (Kinshasa) Costa Rica Croatia Cyprus Denmark Djibouti Dominican Republic Ecuador Egypt Estonia France Georgia Germany Ghana Greece Guatemala Honduras Hong Kong India Indonesia Iraq Ireland Israel Italy Ivory Coast Japan Jordan Kazakhstan Kenya Kosovo Kuwait Kyrgyzstan Latvia Lebanon Lithuania Macedonia Malawi Malaysia Mali Mauritania Mexico Moldova Montenegro Nepal Nicaragua Niger Nigeria Pakistan Palestinian Territories Panama Paraguay Peru Philippines Romania Russia Rwanda Saudi Arabia Senegal Serbia Singapore Slovenia South Africa South Korea Spain Sri Lanka Sudan Sweden Switzerland Syria Tajikistan Tanzania Thailand Tunisia Turkey Turkmenistan Uganda Ukraine United Arab Emirates United Kingdom United States Uruguay Uzbekistan Venezuela Vietnam Yemen Zambia Zimbabwe	Albania Argentina Austria Bolivia Bosnia and Herzegovina Brazil Bulgaria Chile Colombia Costa Rica Croatia Czech Republic Dominican Republic Ecuador El Salvador Guatemala Haiti Honduras Kosovo Macedonia Mexico Montenegro Nicaragua Panama Paraguay Peru Poland Portugal Serbia Uruguay Venezuela	Albania Bosnia and Herzegovina Croatia Kosovo Macedonia Montenegro Serbia

	High income	Upper middle income	Lower middle income	Low income
Countries according to World Bank income group, 2010	Austria Bahrain Canada Croatia Cyprus Czech Republic Denmark Estonia France Germany Greece Hong Kong Ireland Israel Italy Japan Kuwait Latvia Poland Portugal Saudi Arabia Singapore Slovenia South Korea Spain Sweden Switzerland United Arab Emirates United Kingdom United States	Albania Argentina Azerbaijan Belarus Bosnia And Herzegovina Brazil Bulgaria Chile Colombia Costa Rica Dominican Republic Kazakhstan Lebanon Lithuania Macedonia Malaysia Mexico Montenegro Panama Peru Romania Russia Serbia South Africa Turkey Uruguay Venezuela	Armenia Bolivia Cameroon China Djibouti Ecuador Egypt El Salvador Georgia Guatemala Honduras India Indonesia Iraq Ivory Coast Jordan Kosovo Moldova Nicaragua Nigeria Pakistan Palestinian Territories Paraguay Philippines Senegal Sri Lanka Sudan Syria Thailand Tunisia Turkmenistan Ukraine Uzbekistan Vietnam Yemen	Afghanistan Bangladesh Burundi Cambodia Chad Comoros Congo (Kinshasa) Ghana Haiti Kenya Kyrgyzstan Malawi Mali Mauritania Nepal Niger Rwanda Tajikistan Tanzania Uganda Zambia Zimbabwe

	Very high human development	High human development	Medium human development	Low human development
Countries according to Human Development Index group, 2010 (Source: United Nations Development Program)	Argentina Austria Bahrain Canada Chile Croatia Cyprus Czech Republic Denmark Estonia France Germany Greece Hong Kong Ireland Israel Italy Japan Kuwait Latvia Lithuania Montenegro Poland Portugal Saudi Arabia Singapore Slovenia South Korea Spain Sweden Switzerland United Arab Emirates United Kingdom United States	Albania Armenia Azerbaijan Belarus Bosnia and Herzegovina Brazil Bulgaria China Colombia Costa Rica Dominican Republic Ecuador Georgia Jordan Kazakhstan Kosovo Lebanon Macedonia Malaysia Mali Mexico Panama Peru Romania Russia Serbia Sri Lanka Thailand Tunisia Turkey Ukraine Uruguay Venezuela	Bangladesh Bolivia Cambodia Egypt El Salvador Ghana Guatemala Honduras India Indonesia Iraq Kyrgyzstan Moldova Nicaragua Palestinian Territories Paraguay Philippines South Africa Syria Tajikistan Turkmenistan Uzbekistan Vietnam Zambia	Afghanistan Burundi Cameroon Chad Comoros Congo (Kinshasa) Djibouti Haiti Ivory Coast Kenya Malawi Mauritania Nepal Niger Nigeria Pakistan Rwanda Senegal Sudan Tanzania Uganda Yemen Zimbabwe

	Quartile 1 (most equal countries)	Quartile 2	Quartile 3	Quartile 4 (most unequal countries)
Countries according to income inequality quartile (based on 2007-2011 Gini coefficient data); (Source: World Bank World Development Indicators and UNU-WIDER World Income Inequality Database	Egypt Syria Pakistan Bangladesh Germany Czech Republic Sweden Denmark Japan Afghanistan Belarus Kazakhstan Kyrgyzstan Ukraine Albania Armenia Austria Azerbaijan Croatia Cyprus Estonia Iraq Ireland Montenegro Serbia Slovenia Tajikistan Kosovo	Lebanon Indonesia United Kingdom France Spain Italy Poland Romania Greece India Venezuela Palestinian Territories Canada Sri Lanka Cambodia Mali Mauritania Niger South Korea Moldova Bosnia and Herzegovina Bulgaria Burundi Latvia Lithuania Nepal Portugal Sudan Switzerland Tunisia	United States Jordan Turkey China Nigeria Tanzania Israel Uganda Philippines Vietnam Thailand Senegal Georgia Russia Cameroon Zimbabwe Chad Congo (Kinshasa) El Salvador Ivory Coast Macedonia Uzbekistan Yemen	Hong Kong Singapore Brazil Mexico Kenya Malawi South Africa Rwanda Zambia Costa Rica Argentina Bolivia Chile Colombia Comoros Djibouti Dominican Republic Ecuador Guatemala Haiti Honduras Malaysia Nicaragua Panama Paraguay Peru Uruguay

	Quartile 1 (highest net migration rate)	Quartile 2	Quartile 3	Quartile 4 (lowest net migration rate)
Countries according to net migration rates, 2005-2010 (Source: United Nations Population Division)	Afghanistan Albania Armenia Bangladesh Cambodia Comoros Djibouti Dominican Republic El Salvador Georgia Iraq Latvia Lithuania Nepal Nicaragua Palestinian Territories Paraguay Peru Philippines Romania Sri Lanka Sudan Uruguay Zimbabwe	Azerbaijan Bolivia Bulgaria Cameroon Colombia Croatia Egypt Estonia Guatemala Haiti Honduras Indonesia Ivory Coast Kenya Kosovo Kyrgyzstan Mali Mauritania Mexico Moldova Montenegro Pakistan Rwanda Senegal Serbia Tajikistan Tanzania Thailand Tunisia Turkmenistan Uganda Uzbekistan Vietnam Zambia	Argentina Belarus Bosnia and Herzegovina Brazil Chad Chile China Congo (Kinshasa) Costa Rica Ecuador France Germany Ghana Greece Hong Kong India Japan Kazakhstan Macedonia Malawi Niger Nigeria Panama Poland South Korea Turkey Ukraine Venezuela Yemen	Austria Bahrain Burundi Canada Cyprus Czech Republic Denmark Ireland Israel Italy Jordan Kuwait Lebanon Malaysia Portugal Russia Saudi Arabia Singapore Slovenia South Africa Spain Sweden Switzerland Syria United Arab Emirates United Kingdom United States

Countries according to World Bank geographic classification	**East Asia and Pacific**	**Western Europe**	**Transition**	**Latin America and the Caribbean**
	Cambodia China Hong Kong Indonesia Japan Malaysia Philippines Singapore South Korea Thailand Vietnam	Austria Cyprus Denmark France Germany Greece Ireland Italy Portugal Spain Sweden Switzerland United Kingdom	Albania Armenia Azerbaijan Belarus Bosnia and Herzegovina Bulgaria Croatia Czech Republic Estonia Georgia Kazakhstan Kosovo Kyrgyzstan Latvia Lithuania Macedonia Moldova Montenegro Poland Romania Russia Serbia Slovenia Tajikistan Turkey Turkmenistan Ukraine Uzbekistan	Argentina Bolivia Brazil Chile Colombia Costa Rica Dominican Republic Ecuador El Salvador Guatemala Haiti Honduras Mexico Nicaragua Panama Paraguay Peru Uruguay Venezuela
	Middle East and North Africa	**North America**	**South Asia**	**Sub-Saharan Africa**
	Bahrain Djibouti Egypt Iraq Israel Jordan Kuwait Lebanon Palestinian Territories Saudi Arabia Syria Tunisia United Arab Emirates Yemen	Canada United States	Afghanistan Bangladesh India Nepal Pakistan Sri Lanka	Burundi Cameroon Chad Comoros Congo (Kinshasa) Ghana Ivory Coast Kenya Malawi Mali Mauritania Niger Nigeria Rwanda Senegal South Africa Sudan Tanzania Uganda Zambia Zimbabwe

Table A3: Summary statistics of analysis variables, by whether respondent has a household member abroad who left in the past five years

Variable	Overall			No Relative Abroad Past 5 Years			Relative Abroad Past 5 Years		
	N	Mean	Std. Dev.	*N*	Mean	Std. Dev.	*N*	Mean	Std. Dev.
Best Possible Life (0=Worst, 10=Best)	142,468	5.495	2.213	121,991	5.489	2.217	20,477	5.531	2.191
Positive Affect Index (0/10)	121,607	7.205	3.571	104,921	7.187	3.584	16,686	7.316	3.488
Stressed Yesterday (0/1)	126,803	0.259	0.438	109,485	0.257	0.437	17,318	0.270	0.444
Depressed Yesterday (0/1)	126,680	0.124	0.329	109,351	0.122	0.327	17,329	0.136	0.343
Received Remittances	144,003	0.084	0.278	123,354	0.041	0.199	20,649	0.341	0.474
Age: 15-35 years	122,690	5.363	3.505	123,354	0.451	0.498	20,649	0.501	0.500
Age 36-60 years	144,003	0.458	0.498	123,354	0.396	0.489	20,649	0.354	0.478
Age over 60 years	144,003	0.390	0.488	123,354	0.148	0.355	20,649	0.143	0.350
Age Missing	144,003	0.148	0.355	123,354	0.004	0.066	20,649	0.003	0.051
Female[a]	144,003	0.539	0.498	123,354	0.540	0.498	20,649	0.534	0.499
Marital Status: Married or Living with Partner	144,003	0.581	0.493	123,354	0.586	0.492	20,649	0.548	0.498
Unmarried	144,003	0.415	0.493	123,354	0.409	0.492	20,649	0.450	0.497
Marital Status Missing	144,003	0.004	0.064	123,354	0.004	0.065	20,649	0.003	0.053
Children in the Household: None	144,003	0.419	0.493	123,354	0.425	0.494	20,649	0.381	0.486
Children in Household	144,003	0.515	0.500	123,354	0.510	0.500	20,649	0.544	0.498
Children Information Missing	144,003	0.066	0.249	123,354	0.065	0.246	20,649	0.075	0.263
Household size	144,003	4.537	2.844	123,354	4.487	2.803	20,649	4.834	3.060
Per Capita Hhld. Income: 1st quintile	144,003	0.199	0.399	123,354	0.202	0.401	20,649	0.179	0.383
2nd quintile	144,003	0.199	0.399	123,354	0.194	0.396	20,649	0.224	0.417
3rd quintile	144,003	0.199	0.399	123,354	0.194	0.396	20,649	0.226	0.418
4th quintile	144,003	0.199	0.399	123,354	0.200	0.400	20,649	0.192	0.394
5th quintile	144,003	0.198	0.398	123,354	0.204	0.403	20,649	0.160	0.367
Household Income Missing	144,003	0.007	0.082	123,354	0.005	0.070	20,649	0.018	0.132
Education: Elementary Education	144,003	0.332	0.471	123,354	0.338	0.473	20,649	0.295	0.456
Secondary	144,003	0.528	0.499	123,354	0.526	0.499	20,649	0.540	0.498
Tertiary	144,003	0.129	0.336	123,354	0.126	0.331	20,649	0.153	0.360
Education Missing	144,003	0.010	0.102	123,354	0.010	0.100	20,649	0.012	0.110
Employment Status: Employed	144,003	0.482	0.500	123,354	0.485	0.500	20,649	0.461	0.499

Unemployed	144,003	0.043	0.203	123,354	0.042	0.200	20,649	0.050	0.218
Out of the Labor Force[a]	144,003	0.362	0.481	123,354	0.361	0.480	20,649	0.367	0.482
Employment Status Missing	144,003	0.113	0.317	123,354	0.112	0.315	20,649	0.122	0.327
Pain Yesterday: None	144,003	0.724	0.447	123,354	0.727	0.445	20,649	0.706	0.456
Pain Yesterday	144,003	0.266	0.442	123,354	0.263	0.440	20,649	0.285	0.451
Pain Yesterday Missing[a]	144,003	0.010	0.098	123,354	0.010	0.098	20,649	0.009	0.097
Personal Health: Satisfied[a]	144,003	0.773	0.419	123,354	0.773	0.419	20,649	0.774	0.418
Dissatisfied[a]	144,003	0.217	0.412	123,354	0.217	0.412	20,649	0.215	0.411
Personal Health Missing[a]	144,003	0.010	0.099	123,354	0.010	0.098	20,649	0.011	0.103
Health Problem: None	144,003	0.740	0.438	123,354	0.742	0.438	20,649	0.732	0.443
Has a Health Problem	144,003	0.251	0.434	123,354	0.249	0.433	20,649	0.261	0.439
Health Problem Missing	144,003	0.008	0.091	123,354	0.009	0.092	20,649	0.007	0.084
Religiosity: Religion Important	144,003	0.718	0.450	123,354	0.708	0.455	20,649	0.780	0.414
Religion Not Important	144,003	0.233	0.423	123,354	0.240	0.427	20,649	0.190	0.392
Religiosity Missing	144,003	0.049	0.215	123,354	0.052	0.222	20,649	0.030	0.172
Household Location: Small City/Village	144,003	0.531	0.499	123,354	0.537	0.499	20,649	0.497	0.500
Large City	144,003	0.423	0.494	123,354	0.420	0.493	20,649	0.445	0.497
Location Missing	144,003	0.045	0.208	123,354	0.043	0.204	20,649	0.058	0.234

Source: Authors' estimation based on Gallup World Poll data
Note: See Table A1 in the appendix for variable definitions and Table A2 for the included countries
[a] Difference in means between groups with family member abroad and those without not statistically significant at the 5% level.

Table A4: Descriptive statistics, selected variables, before and after entropy balancing

	Relatives Abroad		No Relatives Abroad Unmatched		No Relatives Abroad Matched		Standardized Bias %	
	mean	variance	mean	variance	mean	variance	unmatched	matched
Ages 36-60	0.354	0.229	0.396	0.239	0.354	0.229	-0.089	0.000
Over 60	0.143	0.123	0.148	0.126	0.143	0.123	-0.015	0.000
Age Missing	0.003	0.003	0.004	0.004	0.003	0.003	-0.035	0.000
Female	0.534	0.249	0.540	0.248	0.534	0.249	-0.011	0.000
Married/Living with Partner	0.548	0.248	0.586	0.243	0.548	0.248	-0.078	0.000
Marital Status Missing	0.003	0.003	0.004	0.004	0.003	0.003	-0.028	0.000
Children in Household	0.544	0.248	0.510	0.250	0.544	0.248	0.068	0.000
Children Information Missing	0.075	0.069	0.065	0.061	0.075	0.069	0.039	0.000
Household Size	4.834	9.363	4.487	7.857	4.833	9.362	0.113	0.000
Household Size^2	32.725	2896.166	27.994	2020.589	32.724	2896.099	0.088	0.000
2nd Income Quintile	0.224	0.174	0.194	0.157	0.224	0.174	0.072	0.000
3rd Income Quintile	0.226	0.175	0.194	0.157	0.226	0.175	0.076	0.000
4th Income Quintile	0.192	0.155	0.200	0.160	0.192	0.155	-0.019	0.000
Richest 20 Percent	0.160	0.135	0.204	0.163	0.160	0.135	-0.119	0.000
Income Missing	0.018	0.018	0.005	0.005	0.018	0.018	0.097	0.000
Secondary Education	0.540	0.248	0.526	0.249	0.540	0.248	0.028	0.000
Tertiary Education	0.153	0.130	0.126	0.110	0.153	0.130	0.076	0.000
Education Missing	0.012	0.012	0.010	0.010	0.012	0.012	0.018	0.000
Unemployed	0.050	0.048	0.042	0.040	0.050	0.048	0.039	0.000
Out of the Labor Force	0.367	0.232	0.361	0.231	0.367	0.232	0.012	0.000
Employment Status Missing	0.122	0.107	0.112	0.099	0.122	0.107	0.030	0.000
Pain Yesterday	0.285	0.204	0.263	0.194	0.285	0.204	0.048	0.000
Pain Information Missing	0.009	0.009	0.010	0.010	0.009	0.009	-0.002	0.000
Dissatisfied with Health	0.215	0.169	0.217	0.170	0.215	0.169	-0.004	0.000

Health Satisfaction Missing	0.011	0.011	0.010	0.010	0.011	0.011	0.009	0.000
Has a Health Problem	0.261	0.193	0.249	0.187	0.261	0.193	0.027	0.000
Health Problem Missing	0.007	0.007	0.009	0.009	0.007	0.007	-0.019	0.000
Religion Important	0.780	0.172	0.708	0.207	0.780	0.172	0.175	0.000
Religiosity Missing	0.030	0.029	0.052	0.049	0.030	0.029	-0.125	0.000
Large City	0.445	0.247	0.420	0.244	0.445	0.247	0.051	0.000
Location Missing	0.058	0.055	0.043	0.041	0.058	0.055	0.063	0.000
Year 2010	0.220	0.172	0.162	0.135	0.220	0.172	0.142	0.000
Year 2011	0.047	0.045	0.046	0.044	0.047	0.045	0.003	0.000

Source: Authors' estimation based on Gallup World Poll data

Notes: N=144,003, N with family abroad=20,649. The last two columns display the percent standardized bias, which is a measure of matching quality. It is calculated as the difference of the sample means in the treatment and the controls as a square root of the average of the sample variance in both groups.

Table A5: Emigration of family members, remittances and subjective well-being of those staying behind, full sample, Ordinary Least Squares applied after entropy balancing, 2009-211

	Best Possible Life (0/10)		Positive Affect (0/10)		Stress (0/1)		Depressed (0/1)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Relatives Abroad	0.112***	0.089***	0.135***	0.107***	0.007*	0.010**	0.009***	0.011***
	(0.015)	(0.017)	(0.028)	(0.031)	(0.004)	(0.004)	(0.003)	(0.003)
Remittances		0.088***		0.102**		-0.011*		-0.007
		(0.025)		(0.045)		(0.006)		(0.005)
Ages 36-60	-0.260***	-0.260***	-0.409***	-0.408***	-0.007	-0.007	0.014***	0.014***
	(0.018)	(0.018)	(0.032)	(0.032)	(0.004)	(0.004)	(0.003)	(0.003)
Over 60	-0.208***	-0.210***	-0.554***	-0.556***	-0.093***	-0.093***	-0.012**	-0.012**
	(0.027)	(0.027)	(0.047)	(0.047)	(0.006)	(0.006)	(0.005)	(0.005)
Age Missing	-0.257*	-0.258*	-0.166	-0.168	0.034	0.034	0.007	0.008
	(0.152)	(0.152)	(0.269)	(0.268)	(0.033)	(0.033)	(0.025)	(0.025)
Female	0.116***	0.115***	0.093***	0.092***	0.027***	0.027***	0.007***	0.008***
	(0.015)	(0.015)	(0.027)	(0.027)	(0.004)	(0.004)	(0.003)	(0.003)
Married/Living with Partner	0.039**	0.041**	0.096***	0.099***	0.002	0.002	-0.012***	-0.012***
	(0.017)	(0.017)	(0.029)	(0.029)	(0.004)	(0.004)	(0.003)	(0.003)
Marital Status Missing	-0.221*	-0.220*	-0.189	-0.186	-0.026	-0.026	-0.040**	-0.041**
	(0.124)	(0.123)	(0.278)	(0.278)	(0.031)	(0.031)	(0.018)	(0.018)
Children in Household	-0.115***	-0.115***	-0.017	-0.017	0.016***	0.016***	0.002	0.002
	(0.021)	(0.021)	(0.035)	(0.035)	(0.005)	(0.005)	(0.004)	(0.004)
Children Information Missing	-0.023	-0.027	0.286**	0.281**	-0.007	-0.006	0.022*	0.022*
	(0.066)	(0.066)	(0.123)	(0.123)	(0.016)	(0.016)	(0.013)	(0.013)
Household Size	0.120***	0.119***	0.101***	0.100***	0.001	0.001	-0.004***	-0.003***
	(0.008)	(0.008)	(0.014)	(0.014)	(0.002)	(0.002)	(0.001)	(0.001)
Household Size^2	-0.004***	-0.004***	-0.004***	-0.004***	-0.000	-0.000	0.000**	0.000**
	(0.000)	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
2nd Income Quintile	0.329***	0.324***	0.232***	0.226***	-0.018***	-0.017***	-0.022***	-0.021***
	(0.026)	(0.026)	(0.045)	(0.045)	(0.006)	(0.006)	(0.005)	(0.005)
3rd Income Quintile	0.666***	0.657***	0.372***	0.361***	-0.022***	-0.021***	-0.036***	-0.035***
	(0.029)	(0.029)	(0.050)	(0.050)	(0.006)	(0.006)	(0.005)	(0.005)
4th Income Quintile	0.987***	0.977***	0.645***	0.633***	-0.035***	-0.034***	-0.042***	-0.041***
	(0.033)	(0.034)	(0.056)	(0.056)	(0.007)	(0.007)	(0.006)	(0.006)
Richest 20 Percent	1.394***	1.384***	0.980***	0.969***	-0.047***	-0.046***	-0.061***	-0.061***
	(0.040)	(0.040)	(0.068)	(0.068)	(0.009)	(0.009)	(0.007)	(0.007)

Income Missing	0.086	0.064	0.052	0.029	0.128	0.130	-0.042	-0.040
	(0.822)	(0.822)	(1.304)	(1.305)	(0.133)	(0.134)	(0.095)	(0.094)
Secondary Education	0.292***	0.292***	0.188***	0.188***	0.012***	0.012***	-0.016***	-0.016***
	(0.020)	(0.020)	(0.034)	(0.034)	(0.004)	(0.004)	(0.004)	(0.004)
Tertiary Education	0.555***	0.557***	0.387***	0.389***	0.030***	0.030***	-0.031***	-0.031***
	(0.027)	(0.027)	(0.047)	(0.047)	(0.006)	(0.006)	(0.005)	(0.005)
Education Missing	0.260***	0.260***	0.085	0.084	0.018	0.018	-0.022	-0.022
	(0.093)	(0.093)	(0.139)	(0.139)	(0.021)	(0.021)	(0.017)	(0.017)
Unemployed	-0.478***	-0.478***	-0.348***	-0.348***	-0.008	-0.008	0.042***	0.042***
	(0.038)	(0.038)	(0.064)	(0.064)	(0.009)	(0.009)	(0.007)	(0.007)
Out of the Labor Force	0.111***	0.110***	0.162***	0.161***	-0.059***	-0.059***	-0.003	-0.003
	(0.018)	(0.018)	(0.031)	(0.031)	(0.004)	(0.004)	(0.003)	(0.003)
Employment Status Missing	0.082	0.082	-0.306**	-0.307**	0.040**	0.040**	-0.014	-0.014
	(0.079)	(0.079)	(0.151)	(0.151)	(0.019)	(0.019)	(0.015)	(0.015)
Pain Yesterday	-0.225***	-0.225***	-1.348***	-1.348***	0.191***	0.191***	0.141***	0.141***
	(0.018)	(0.018)	(0.034)	(0.034)	(0.004)	(0.004)	(0.004)	(0.004)
Pain Information Missing	0.027	0.024	-0.529**	-0.533**	0.088***	0.089***	0.045**	0.046**
	(0.087)	(0.086)	(0.226)	(0.225)	(0.029)	(0.029)	(0.022)	(0.022)
Dissatisfied with Health	-0.756***	-0.755***	-1.331***	-1.330***	0.082***	0.082***	0.080***	0.080***
	(0.022)	(0.022)	(0.042)	(0.042)	(0.005)	(0.005)	(0.004)	(0.004)
Health Satisfaction Missing	-0.332***	-0.334***	-1.020***	-1.020***	0.083***	0.083***	0.026	0.026
	(0.083)	(0.083)	(0.171)	(0.171)	(0.021)	(0.021)	(0.017)	(0.017)
Has a Health Problem	-0.135***	-0.135***	-0.183***	-0.184***	0.025***	0.025***	0.045***	0.045***
	(0.020)	(0.020)	(0.036)	(0.036)	(0.005)	(0.005)	(0.004)	(0.004)
Health Problem Missing	-0.093	-0.094	-0.131	-0.129	-0.007	-0.007	0.061***	0.061***
	(0.094)	(0.094)	(0.210)	(0.210)	(0.024)	(0.024)	(0.023)	(0.023)
Religion Important	0.101***	0.100***	0.397***	0.395***	-0.011**	-0.011**	0.003	0.003
	(0.021)	(0.021)	(0.038)	(0.038)	(0.005)	(0.005)	(0.004)	(0.004)
Religiosity Missing	-0.036	-0.039	-0.084	-0.087	0.027	0.027	0.010	0.010
	(0.072)	(0.072)	(0.147)	(0.147)	(0.017)	(0.017)	(0.013)	(0.013)
Large City	0.141***	0.141***	0.044	0.044	0.024***	0.024***	0.010***	0.010***
	(0.017)	(0.017)	(0.030)	(0.030)	(0.004)	(0.004)	(0.003)	(0.003)
Location Missing	0.151**	0.151**	0.134	0.135	0.004	0.004	-0.004	-0.004
	(0.060)	(0.060)	(0.087)	(0.087)	(0.012)	(0.012)	(0.010)	(0.010)
Country and Survey Wave Dummies	Y	Y	Y	Y	Y	Y	Y	Y
Observations	142,468	142,468	121,607	121,607	126,803	126,803	126,680	126,680

Adjusted R^2	0.259	0.259	0.196	0.197	0.113	0.113	0.103	0.103

Source: Authors' estimation based on Gallup World Poll data

Bootstrapped standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The omitted categories are: ages 15-35; completed primary education; married or living with partner; poorest 20%; no children in the household; small city/village; employed (full- or part-time, or self-employed); religion unimportant; no pain yesterday; satisfied with personal health; no health problem. Dummy variables for missing observations for each variable included but not reported. See 2 Tables A1 and A2 in the Appendix for variable definitions and the list of countries included in each survey wave.

Table A6: Emigration, remittances and subjective well-being of those staying behind, full sample, Ordinary Least Squares results, 2009-2011, without health controls

	Best Possible Life (0/10)		Positive Affect (0/10)		Stress (0/1)		Depressed (0/1)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Relatives Abroad (1 = Yes)	0.116***	0.084***	0.135***	0.107***	0.009**	0.010***	0.008***	0.008***
	(0.015)	(0.016)	(0.028)	(0.030)	(0.004)	(0.004)	(0.003)	(0.003)
Remittances (1 = Yes)		0.116***		0.097***		-0.004		0.001
		(0.021)		(0.037)		(0.005)		(0.004)
Observations	142,468	142,468	121,607	121,607	126,803	126,803	126,680	126,680
Adjusted R^2	0.268	0.268	0.182	0.182	0.105	0.105	0.097	0.097

Source: Authors' estimation based on Gallup World Poll data

Notes: Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. Country- and year-fixed effects and individual controls (except health controls) are included in all regressions. Full econometric output is available upon request.

Table A7: Emigration, remittances and subjective well-being of those staying behind, non-missing observations only, Ordinary Least Squares results, 2009-2011

	Best Possible Life (0/10)		Positive Affect (0/10)		Stressed Yesterday (0/1)		Depressed (0/1)	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Relatives Abroad	0.124***	0.095***	0.110***	0.086**	0.008*	0.009**	0.007**	0.007**
	(0.018)	(0.019)	(0.032)	(0.033)	(0.004)	(0.004)	(0.003)	(0.003)
Remittances	-	0.110***	-	0.091**	-	-0.005	-	0.002
	-	(0.024)	-	(0.042)	-	(0.005)	-	(0.004)
Age	-0.042***	-0.042***	-0.057***	-0.057***	0.006***	0.006***	0.004***	0.004***
	(0.002)	(0.002)	(0.004)	(0.004)	(0.000)	(0.000)	(0.000)	(0.000)
Age Squared	0.038***	0.038***	0.043***	0.043***	-0.008***	-0.008***	-0.005***	-0.005***
	(0.002)	(0.002)	(0.004)	(0.004)	(0.000)	(0.000)	(0.000)	(0.000)
Female	0.122***	0.121***	0.092***	0.092***	0.027***	0.027***	0.008***	0.008***
	(0.012)	(0.012)	(0.022)	(0.022)	(0.003)	(0.003)	(0.002)	(0.002)
Married/Living with Partner	0.112***	0.113***	0.271***	0.272***	-0.007**	-0.007**	-0.021***	-0.021***
	(0.014)	(0.014)	(0.025)	(0.025)	(0.003)	(0.003)	(0.002)	(0.002)
Children in Household	-0.126***	-0.127***	-0.086***	-0.087***	0.014***	0.014***	0.007**	0.007**
	(0.016)	(0.016)	(0.028)	(0.028)	(0.004)	(0.004)	(0.003)	(0.003)
Household Size	0.013**	0.013**	0.033***	0.033***	0.004***	0.004***	0.000	0.000
	(0.006)	(0.006)	(0.011)	(0.011)	(0.001)	(0.001)	(0.001)	(0.001)
Household Size Squared	-0.001**	-0.001**	-0.001*	-0.001*	-0.000*	-0.000*	0.000	0.000
	(0.000)	(0.000)	(0.001)	(0.001)	(0.000)	(0.000)	(0.000)	(0.000)
Log of Household Income Per Capita	0.254***	0.252***	0.188***	0.187***	-0.010***	-0.010***	-0.013***	-0.013***
	(0.007)	(0.007)	(0.011)	(0.011)	(0.001)	(0.001)	(0.001)	(0.001)
Secondary Education	0.337***	0.337***	0.181***	0.180***	0.002	0.002	-0.016***	-0.016***
	(0.015)	(0.015)	(0.027)	(0.027)	(0.003)	(0.003)	(0.003)	(0.003)
Tertiary Education	0.640***	0.639***	0.362***	0.361***	0.017***	0.017***	-0.030***	-0.030***
	(0.021)	(0.021)	(0.038)	(0.038)	(0.005)	(0.005)	(0.004)	(0.004)
Unemployed	-0.549***	-0.549***	-0.374***	-0.374***	0.003	0.003	0.051***	0.051***
	(0.030)	(0.030)	(0.052)	(0.052)	(0.007)	(0.007)	(0.005)	(0.005)
Out of the Labor Force	0.037***	0.036***	0.071***	0.071***	-0.057***	-0.057***	0.004	0.004

	(0.014)	(0.014)	(0.025)	(0.025)	(0.003)	(0.003)	(0.002)	(0.002)
Pain Yesterday	-0.251***	-0.251***	-1.282***	-1.282***	0.189***	0.189***	0.139***	0.139***
	(0.014)	(0.014)	(0.028)	(0.028)	(0.004)	(0.004)	(0.003)	(0.003)
Dissatisfied with Health	0.755***	0.755***	1.273***	1.273***	-0.078***	-0.078***	-0.077***	-0.077***
	(0.017)	(0.017)	(0.034)	(0.034)	(0.004)	(0.004)	(0.003)	(0.003)
Has a Health Problem	-0.143***	-0.144***	-0.183***	-0.183***	0.026***	0.027***	0.040***	0.040***
	(0.016)	(0.016)	(0.030)	(0.030)	(0.004)	(0.004)	(0.003)	(0.003)
Religion Important	0.059***	0.059***	0.379***	0.378***	-0.009**	-0.009**	0.001	0.001
	(0.015)	(0.015)	(0.028)	(0.028)	(0.004)	(0.004)	(0.003)	(0.003)
Large City	0.130***	0.130***	0.088***	0.088***	0.024***	0.024***	0.012***	0.012***
	(0.014)	(0.014)	(0.024)	(0.024)	(0.003)	(0.003)	(0.002)	(0.002)
Country and Survey Wave Dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	107,216	107,216	90,851	90,851	94,485	94,485	94,427	94,427
Adjusted R^2	0.290	0.290	0.197	0.197	0.120	0.120	0.103	0.103

Source: Authors' estimation based on Gallup World Poll data

Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The omitted categories are: elementary education; married or living with partner; no children in the household; small city/village; employed (full- or part-time, or self-employed); religion unimportant; no pain yesterday; satisfied with personal health; no health problem. See Tables A1 and A2 in the Appendix for variable definitions and the list of countries included in each survey wave.

Table A8: Having family member abroad and receiving remittances, logistic regressions, average marginal effects

VARIABLES	(1) Relatives Abroad	(2) Remittances	(3) Relatives Abroad	(4) Remittances	(5) Relatives Abroad	(6) Remittances	(7) Relatives Abroad	(8) Remittances
Best Possible Life (0/10)	0.004***	0.003***						
	(0.000)	(0.000)						
Positive Affect (0/10)			0.001***	0.001***				
			(0.000)	(0.000)				
Stress (0/1)					0.005**	0.000		
					(0.002)	(0.002)		
Depressed (0/1)							0.009***	0.003
							(0.003)	(0.002)
Ages 36-60	-0.005**	-0.003**	-0.004	-0.004**	-0.005**	-0.005***	-0.005**	-0.005**
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Over 60	0.020***	0.011***	0.020***	0.010***	0.019***	0.009***	0.020***	0.009***
	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)
Age Missing	0.013	0.000	0.010	0.010	0.007	0.008	0.004	0.008
	(0.018)	(0.017)	(0.019)	(0.019)	(0.018)	(0.018)	(0.018)	(0.018)
Female	0.002	0.007***	0.001	0.006***	0.001	0.006***	0.001	0.006***
	(0.002)	(0.001)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Married/Living with Partner	-0.011***	-0.015***	-0.012***	-0.015***	-0.011***	-0.015***	-0.011***	-0.015***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Marital Status Missing	-0.050***	-0.019	-0.042**	-0.022	-0.038**	-0.019	-0.037**	-0.019
	(0.017)	(0.012)	(0.018)	(0.014)	(0.017)	(0.013)	(0.017)	(0.013)
Children in Household	0.001	0.006***	0.005*	0.007***	0.005*	0.006***	0.004	0.006***
	(0.002)	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)
Children Information Missing	-0.004	0.019***	-0.004	0.017**	-0.003	0.017**	-0.004	0.017**
	(0.009)	(0.007)	(0.009)	(0.007)	(0.008)	(0.007)	(0.008)	(0.007)
Household Size	0.001	0.005***	0.001	0.005***	0.001	0.005***	0.001*	0.005***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Household Size^2	0.000***	-0.000**	0.000***	-0.000**	0.000***	-0.000**	0.000**	-0.000**
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
2nd Income Quintile	0.031***	0.032***	0.032***	0.031***	0.031***	0.031***	0.032***	0.032***

	(0.003)	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)
3rd Income Quintile	0.053***	0.056***	0.052***	0.056***	0.051***	0.055***	0.052***	0.055***
	(0.003)	(0.002)	(0.003)	(0.003)	(0.003)	(0.002)	(0.003)	(0.002)
4th Income Quintile	0.066***	0.067***	0.065***	0.068***	0.065***	0.067***	0.066***	0.067***
	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)
Richest 20 Percent	0.080***	0.066***	0.080***	0.068***	0.079***	0.068***	0.080***	0.067***
	(0.005)	(0.004)	(0.005)	(0.005)	(0.005)	(0.004)	(0.005)	(0.004)
Income Missing	-0.024	0.144*	-0.002	0.136	-0.024	0.140*	-0.023	0.140*
	(0.073)	(0.078)	(0.085)	(0.083)	(0.068)	(0.076)	(0.068)	(0.076)
Secondary Education	0.023***	0.010***	0.021***	0.012***	0.022***	0.012***	0.022***	0.012***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Tertiary Education	0.043***	0.012***	0.040***	0.014***	0.041***	0.014***	0.041***	0.015***
	(0.003)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)	(0.004)	(0.003)
Education Missing	-0.016*	-0.002	-0.020**	0.002	-0.017**	0.002	-0.018**	0.001
	(0.009)	(0.009)	(0.008)	(0.009)	(0.008)	(0.009)	(0.008)	(0.009)
Unemployed	0.013***	0.005	0.009**	0.005	0.007	0.004	0.007	0.004
	(0.004)	(0.003)	(0.005)	(0.004)	(0.005)	(0.004)	(0.005)	(0.004)
Out of the Labor Force	0.000	0.003	0.002	0.003*	0.002	0.003*	0.002	0.003*
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Employment Status Missing	0.038***	0.008	0.036***	0.007	0.037***	0.008	0.039***	0.008
	(0.011)	(0.008)	(0.012)	(0.008)	(0.011)	(0.008)	(0.011)	(0.007)
Pain Yesterday	0.007***	0.001	0.005**	0.001	0.003	-0.000	0.003	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Pain Information Missing	0.001	0.017**	-0.011	0.019	-0.008	0.024*	-0.014	0.018
	(0.011)	(0.008)	(0.017)	(0.015)	(0.015)	(0.013)	(0.015)	(0.012)
Dissatisfied with Health	0.002	-0.001	0.001	-0.002	-0.002	-0.003	-0.002	-0.003
	(0.003)	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)
Health Satisfaction Missing	0.032***	0.036***	0.018	0.023**	0.018	0.027***	0.017	0.021**
	(0.012)	(0.010)	(0.013)	(0.011)	(0.012)	(0.010)	(0.012)	(0.010)
Has a Health Problem	0.010***	0.009***	0.011***	0.009***	0.011***	0.009***	0.011***	0.009***
	(0.002)	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)
Health Problem Missing	-0.012	-0.001	-0.010	-0.014	-0.010	-0.004	-0.006	-0.009
	(0.012)	(0.009)	(0.014)	(0.010)	(0.013)	(0.009)	(0.013)	(0.009)
Religion Important	0.009***	0.006***	0.009***	0.008***	0.010***	0.007***	0.010***	0.008***

	(0.003)	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)	(0.003)	(0.002)
Religiosity Missing	-0.008	0.009	-0.010	0.005	-0.010	0.004	-0.012	0.004
	(0.008)	(0.006)	(0.009)	(0.007)	(0.008)	(0.006)	(0.008)	(0.006)
Large City	0.008***	0.006***	0.008***	0.007***	0.008***	0.007***	0.008***	0.007***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Location Missing	0.028***	0.010*	0.026***	0.006	0.027***	0.009	0.027***	0.008
	(0.007)	(0.006)	(0.007)	(0.005)	(0.007)	(0.005)	(0.007)	(0.075)
Pseudo R^2	0.091	0.143	0.091	0.146	0.091	0.144	0.091	0.144
Observations	142,468	142,468	121,607	121,607	126,803	126,803	126,680	126,680

Source: Authors' estimation based on Gallup World Poll data

Notes: The table shows the average marginal effects from logistic regression estimates, whereby the dependent variable is having relatives abroad in Models (1), (3), (5), and (7), and receiving remittances in Models (2), (4), (6), and (8). Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The omitted categories are: ages 15-35; completed primary education; married or living with partner; poorest 20%; no children in the household; small city/village; employed (full- or part-time, or self-employed); religion unimportant; no pain yesterday; satisfied with personal health; no health problem. Dummy variables for missing observations for each variable included but not reported. See Table A1 and A2 in the Appendix for variable definitions and the list of countries included in each survey wave.