Chapter 5

Happiness and International Migration in Latin America

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Latin Americans consistently score higher on happiness—and on a range of other subjective well-being indicators—than respondents in other world regions with comparable income levels (see Chapter 6 in this report). Yet there is substantial out-migration from the region. Why do many Latin Americans move abroad? Does emigration increase or decrease their happiness? How does migration affect the well-being of the families at the origin?

In this chapter, we build on our earlier work on well-being and migration to explain this seeming paradox.[1] We use data from the Gallup World Poll (GWP) for 2009-2016[2] and focus on two distinct subjective well-being dimensions—*hedonic* (i.e., experienced) and *evaluative* (i.e., overall life evaluations). Specifically, we explore whether pre-migration levels of well-being can help explain the emigration decision. We then look at the well-being costs or benefits of that decision, both for migrants themselves and for the families they leave behind in the origin countries.

We primarily focus on migration to other countries within Latin America and to the United States and Europe. While there is a historical literature on the large migration episodes that occurred from rural areas to the major Latin American cities in earlier decades, there has not been much work in the area of rural to urban migration in recent years. Nor are there sufficient fine-grained within-country-level data to study this in a consistent manner across the region. John Knight's excellent work on internal migration for this report uses extensive data for China; we do not know of similar data on internal migration for Latin America.[3]

1. Emigration Aspirations and Emigration Plans

Who are the potential emigrants from Latin America? Where would they like to go? How much do happiness and economic considerations matter for the decision to move abroad? To answer these questions, we explored variables measuring two different degrees of willingness to emigrate – emigration *intentions* (*aspirations*) and emigration *plans* (for definitions, see Table A1).[4] While emigration intentions are tentative and some respondents may never end up moving abroad, several studies show that such

moving *intentions* are relatively good predictors of subsequent *behavior*.[5]

Unsurprisingly, potential migrants weigh the costs and benefits of migration before undertaking the move.[6] Migration costs can include payments for visas, transportation, or language courses as well as psychological costs related to separation from family and friends. Emigrants hope to benefit from moving in the form of higher earnings, better opportunities, and a better quality of life. Most studies of migration predict that the least happy and poorest individuals will migrate because they have the most to gain (and the least to lose) from emigration.

In reality though, the poorest people often do not emigrate, as a certain level of income is necessary to finance moving abroad.[7] Similarly, the out-migration of relatively rich people is also low as the expected benefits abroad are smaller relative to the psychological costs that migration entails. Nevertheless, we know less about the happiness or unhappiness of the individuals who intend to emigrate, and how or if that affects their emigration decisions. The few existing studies reveal that respondents who report emigration intentions are relatively less happy than the average; only one study finds the opposite.[8]

The evidence for Latin America[9] shows that individuals who intend to migrate have the means and capabilities to migrate (in terms of income and education) but are relatively dissatisfied with their lives. As such, they fit into the category of "frustrated achievers."[10] Specifically, analysis based on Latinobarometro data demonstrates that a one-point increase in happiness (on a 1-4 scale, where 1 is the least happy and 4 is the most happy) decreases the predicted probability of emigration by about two percentage points.[11,12]

Following up on these studies, we used GWP data for Latin America (2009-2016) to understand whether potential Latin American emigrants are really "frustrated achievers." We also explored whether income or well-being is more important for the decision to move.

Our data reveal that a relatively large percentage – 25% – of respondents in the Latin American sample in the Gallup World Poll reported that given the opportunity, they would migrate to another country (Figure 1). Among the countries

with the highest proportions of potential emigrants were Honduras (47%), El Salvador (42%), and Peru (33%). The top five potential destinations mentioned were the United States, Spain, Canada, Argentina, and Brazil. A considerably smaller share of respondents, about 3% of the sample, reported plans to emigrate permanently to another country in the next 12 months (Figure 5.1). Among those with emigration plans, the top desired destination countries were the United States, Spain, Argentina, Costa Rica, and Canada.

In Figure 5.2, we document the life evaluations and incomes of Latin Americans with and without emigration aspirations and plans (comparisons along other variables are available in Table A3).[13] Our results are highly suggestive of a frustrated achiever pattern, with those who intend to migrate being unhappier but richer (more likely to be in the upper income quintiles) than those

who want to stay. The differences in life evalua- tions and incomes in Figure 2 may appear small, but are meaningful in the statistical sense. At the same time, potential emigrants are more likely to report difficulties with living comfortably on their current income and lower satisfaction with their living standards than those who do not intend to emigrate. Potential emigrants were also more likely to be unemployed and educated (Table A3).

We also estimated the probabilities of reporting emigration aspirations and plans in a regression framework, whereby we hold constant certain characteristics such as age, education, gender, income, employment status, and perceptions of the country's economic, political, and institutional situation. Simply put, regression analysis allows us, to the extent possible, to compare similar groups of Latin Americans with and without emigration intentions.

Figure 5.1: Share of Respondents Reporting Emigration Aspirations and Plans, Analysis Samples
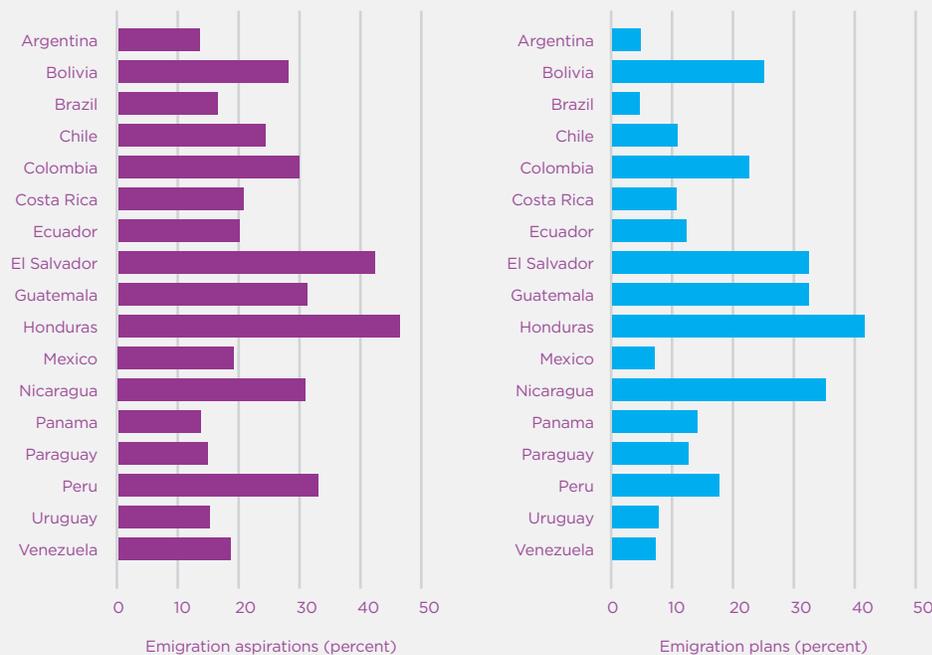
Source: Authors' calculations based on Gallup World Poll data

Notes: N=101,317 in the emigration aspirations sample; N=77,459 in the emigration plans sample

Figure 5.2: Average Life Evaluations and Percent of Respondents in Upper Income Quintiles, Analysis Samples

Average life evaluations

Average life evaluations (0-10)

6.13	6.35

■ intent
■ no intent

Average life evaluations

6.04	6.31

■ plan
■ no plan

Percent high-income

Percent

43.92	39.22

■ intent
■ no intent

Percent high-income

47.92	40.23

■ plan
■ no plan

Source: Authors' calculations based on Gallup World Poll data

Notes: N=101,317 in the emigration aspirations sample; N=77,459 in the emigration plans sample. See Table A3 for more details. Percent high-income refers to the "share of respondents in the top two income quintiles." The differences in means between all groups are statistically significant. The p-value of the t-test of equality of means between those with and without emigration intentions (top left panel) is 0.000 (t-stat=12.2).
The p-value of the t-test of the equality of means (percent high-income) between those with and without emigration intentions (bottom left panel) is 0.000 (t-stat=12.9). The p-value of the t-test of the equality of means (percent high-income) between those with and without emigration plans (bottom right panel) is 0.000 (t-stat=5.2). The p-value of the t-test of the equality of means (life evaluations) between those with and without emigration plans (top right panel) is 0.000 (t-stat=7.1).

These regression results (shown in Table A4) confirm the frustrated achiever story. First, emigration aspirations and plans for Latin American respondents decrease as happiness (evaluative and hedonic well-being) increases. Simply put, the happier people are, the less likely they are to want to leave their homes and emigrate abroad. A one-unit increase in evaluative well-being is associated with a 0.3 percentage point decline in the probability of reporting emigration aspirations and a 0.1 percentage point decline in the probability of reporting emigration plans. Having smiled the day before is also associated

with a lower chance of reporting emigration aspirations and plans.

Figure 5.3 displays the key findings from the regression analyses. The predicted probability of having emigration aspirations is 27% for the least happy respondents (whose best possible life evaluation scores are at 0), while it is 23% for the happiest respondents (whose life evaluations are at 10), a difference of 4 percentage points. Another way to put these effects in perspective is to look at the difference in predicted emigration intentions of those at the bottom quartile and

top quartile of the life evaluations distribution. Specifically, the emigration probability for those at the 25th percentile of the happiness distribution (life evaluation=5) is 25.5%, while for those at the 75th percentile of happiness distribution (life evaluation score=8) it is 24.6%, a difference of just 1 percentage point. The difference in the predicted emigration aspirations for respondents reporting no smiling (a measure of hedonic well-being/affect) and those who do is about 2.4 percentage points, meanwhile (see Table A4). The predicted probability of having emigration plans is much lower than that for having emigration aspirations, with the difference between the probability of reporting emigration plans being 3.3% for the least happy Latin Americans in the sample and 2.6% for the happiest ones. These results are in line with the findings in other studies on Latin American emigration intentions.[14]

Further interesting findings emerge from the analyses (Table A4). For example, as in other studies,[15] we document that rich individuals are more likely to express emigration aspirations compared to poorer individuals within the same Latin American country. At the same time, those who find it difficult to get by with their current income are more likely to want to emigrate than those who live comfortably with their means. This reflects that income aspirations matter as much as current conditions for the emigration decision. When it comes to the probability of having concrete emigration *plans*, however, the relatively rich and the poor do not differ from each other.
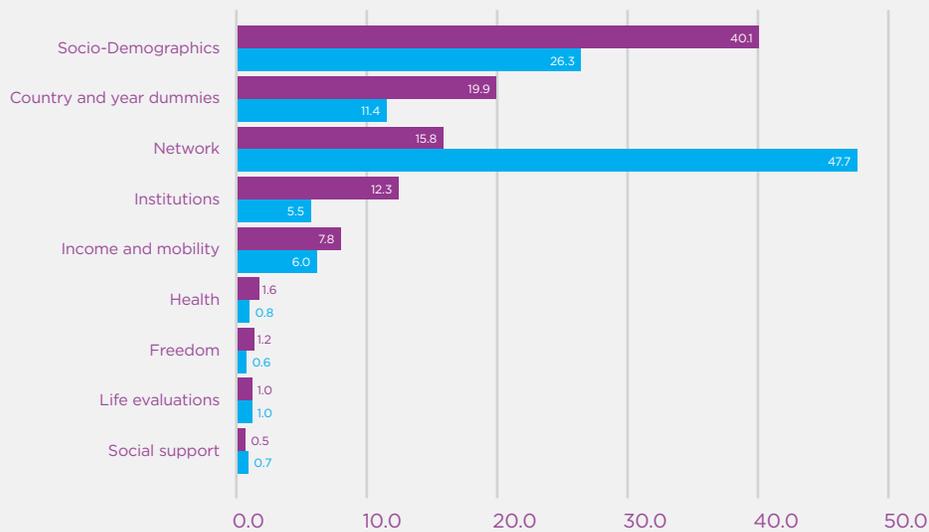
Figure 5.3: Emigration Aspirations and Plans, Adjusted Predictions with 95% Confidence Intervals
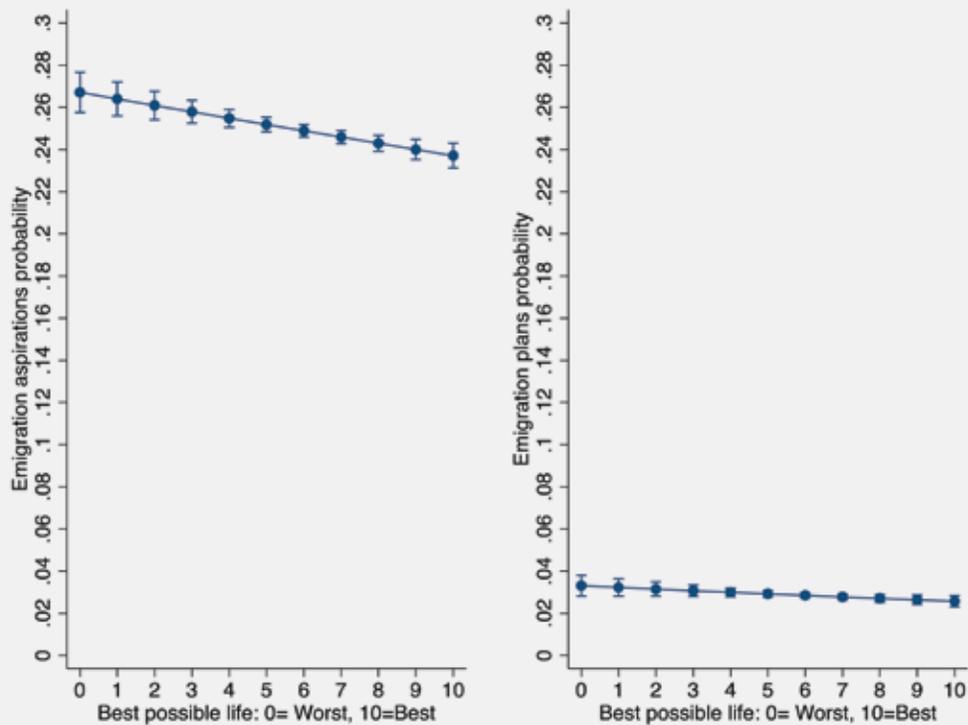
Source: Authors' calculations based on Gallup World Poll data

Notes: N=101,317 in the emigration aspirations sample; N=77,459 in the emigration plans sample

Figure 5.4: Relative Contribution of Explanatory Variables to Overall Variation in Emigration Aspirations and Plans (Percent Contribution to Pseudo R^2)

Source: Authors' calculations based on Gallup World Poll data

Notes: Based on Shapley-based variance decompositions. Pseudo R^2=0.14

■ **Aspirations**
■ **Plans**

Emigration aspirations and plans also vary according to how Latin Americans in our sample perceive their economic mobility. Those who reported no change in their economic situation are *less* likely to have emigration aspirations and plans compared with those who report that their economic situation has *improved* (again reflecting differences in aspirations). Individuals who report worsening economic mobility are even more likely than those reporting economic improvement to want to move abroad.

There are some additional findings (shown in Table A4), which are highly intuitive – the more educated, the unemployed, those living in urban areas, those with networks abroad, and those reporting that corruption is present in government and in business are more likely to want to move.[16] The old, females, the married, and those who are satisfied with institutions and their freedom, as well as those who have social support, are less likely to want to move. Respondents experiencing physical pain are also more likely to want to

emigrate, while household size does not seem to make a difference for emigration aspirations and plans.[17]

We next look at how important different circumstances are in explaining emigration intentions and plans.[18] Specifically, we show in Table A4 whether each variable in our analysis is positively or negatively associated with emigration intentions and plans, and we here examine its explanatory power (relative weight or statistical importance) for the overall variation in emigration intentions and plans.

Figure 5.4 shows that socio-economic variables (such as age, marital status, gender, education), country of origin, and year trends are by far the biggest predictors of emigration aspirations. Having a network of contacts abroad is also a pivotal determinant of potential emigration, accounting for almost half of the explained variation in emigration plans, and 16% in emigration aspirations. At the same time, subjective well-being is a relatively weak

predictor of potential emigration, with happiness/life satisfaction explaining just 1% of the intent to migrate response, and smiling even less. Income factors are about six to eight times more important for potential emigration than subjective well-being. As such, while subjective well-being plays a role in the decision to emigrate or not, it is a minor one compared to that of the objective factors.

2. The Well-being Consequences of Migration for Those Who Move

Our findings thus far suggest that potential emigrants from Latin America are frustrated achievers who are less happy but wealthier than respondents who wish to remain in their countries of origin. What happens to these frustrated achievers once they reach their desired destinations? Does their perceived well-being improve?

Chapter 3, which is in part based on a methodology we developed in earlier work,[19] provides evidence that Latin Americans may positively benefit from emigrating. In this section, we extend this analysis by providing further insights into the relationship. To that end, we again utilize data from the GWP for 2009-2016 but to increase our statistical power and be able to reveal more about migration patterns, we rely on all available Latin American and Caribbean countries, including those with small sample sizes.

Studying migration's consequences for those who move is challenging as migration does not occur at random and emigrants take their selective traits with them when they move.[20] Moreover, while migration may influence well-being, those who leave might have lower life satisfaction before the move, as we show in the previous section. Thus, a valid analysis must rely on constructing a comparison group that demonstrates the counter-factual – i.e. what would have happened to migrants' well-being if they had not migrated (see Chapter 3 in this report).

Relying on a statistical matching procedure, we compare the post-migration outcomes of immigrants from Latin America living abroad with those of a matched group of non-migrants (stayers) at the origin. Specifically, based on information about country of birth, we identify Latin American immigrants living abroad and pair them with similar native-born individuals

from the same origin country who have no emigration intentions.[21] This second group provides some insight into what might have happened to the life evaluations of Latin Americans if they had not emigrated.

While arguably less robust than the methodology in our earlier work, where we found that migrants from post-socialist countries moving to developed countries experienced gains in subjective well-being,[22] our method allows us to rely on larger sample sizes necessary to look at specific nuances in the migration experiences of Latin Americans from particular countries and living in certain destinations.[23]

Our main findings are featured in Table 5.1. As in Chapter 3, overall, we find that Latin American emigrants have higher life evaluations compared to similar stayers from the same country (Model (1)).[24] Specifically, the life evaluations differential between immigrants and stayers is about 0.3 on a scale of 0-10, which represents about 5% of the sample mean of 6.3. This effect is relatively modest, yet meaningful in the statistical sense. We further explore nuances and patterns behind this finding. Specifically, in Model (2) we only compare stayers with migrants who go to advanced developed countries – such as those in Western Europe, the United States, Canada, Australia, and others (see the Notes to Table 5.1 for the included countries), while in Model (3), only stayers and Latin American immigrants going to other Latin American countries are included. Our findings suggest that Latin Americans moving to other Latin American countries may gain more in terms of life evaluations compared to those in developed countries. In part, this finding is likely due to the fact that distance and culture play a role for the "happiness premium" immigrants are able to realize, which is also what our earlier work on immigrants from transition economies finds.[25]

We next exclude the Caribbean countries, so that the results are restricted to the countries in the analyses of potential emigrants in the previous section (Model (4)). The findings and main conclusions remain robust. Finally, the results in Models (5)-(9) suggest that while migrant men and women benefit equally from migration in terms of their life evaluations, the "happiness gains" from migration are clearly concentrated for the middle-aged Latin Americans (those aged 35 to 50). This is likely because migrants in

Table 5.1: Difference in Life Evaluation Levels Between Latin American Migrants and Matched Stayers

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Overall	Advanced countries destinations	LAC destinations	Restricted sample	Females	Males	Age 34 and younger	Ages 35-50	50 and older
Life evaluations difference	0.316***	0.171*	0.481***	0.287***	0.267***	0.238**	0.145	0.473***	0.171
	(0.070)	(0.096)	(0.099)	(0.071)	(0.090)	(0.109)	(0.109)	(0.120)	(0.133)
N	4,262	1,722	2,426	4,006	2,546	1,716	1,610	1,328	1,324
Adj. R²	0.065	0.069	0.050	0.060	0.063	0.063	0.041	0.076	0.063

Source: Authors' calculations based on Gallup World Poll data

Notes: Robust standard errors in parentheses. The differences are based on OLS regressions applied after statistical matching. All estimates are adjusted for the pre-treatment covariates (age groups, gender, education levels, country of origin, and year of interview). Column (1) shows the estimates for the full matched sample for all matched Latin American and Caribbean countries. The advanced country destinations in (2) are based on all available countries from the list in Nikolova and Graham (2015a) and include: United States, United Kingdom, France, Germany, The Netherlands, Belgium, Spain, Italy, Sweden, Greece, Denmark, Hong Kong, Japan, Israel, Canada, Australia, New Zealand, South Korea, Austria, Cyprus, Finland, Iceland, Ireland, Luxembourg, Malta, Norway, Portugal, Slovenia, and Switzerland. The LAC destinations in (3) are: Venezuela, Brazil, Mexico, Costa Rica, Argentina, Belize, Bolivia, Chile, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala Honduras, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, and Uruguay. The restricted sample in (4) includes the following origin countries: Brazil, Mexico, Costa Rica, Argentina, Bolivia, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, Paraguay, Peru, and Uruguay. Models (5)-(9) are based on the overall sample, which is split according to the respective socio-demographic characteristic.

this age group are in their prime working years, whereby their chances of income and opportunity gains are highest, while younger and in particular older migrants may benefit more from being near their families, and have less to trade off in terms of income gains.

We next turn our attention to the experiences of migrants from the sending countries with at least 90 migrants. These results should be interpreted with caution due to the small sample sizes. Table 5.2 reveals that not all migrants uniformly gain from emigrating. For example, the post-migration life evaluation levels of Venezuelans, Mexicans, Argentinians, Bolivians, and Chileans are, on average, indistinguishable from those of their compatriots who did not emigrate. Moreover, Brazilian immigrants, whose top three destination countries are Portugal, Paraguay, and Uruguay, may even incur life evaluation losses compared to comparable non-migrant Brazilians at the origin. At the same time, Colombians, Nicaraguans, Paraguayans, and Peruvians living abroad are happier than their stayer counterparts. It is

difficult to explain the differences across so many different countries. It is more intuitive for some, such as Nicaragua, Colombia, and Paraguay, where migrants are leaving either civil violence or generally poor governance behind, than for others. In the specific case of Venezuela, meanwhile, it is plausible that many migrations were not desired paths, but rather an escape from an atmosphere of rapidly deteriorating political freedom and economic stability.

Finally, Table 5.3 offers some insights into the happiness differential between migrants and stayers at particular destination countries. Immigrants from Latin American countries living in Spain, Costa Rica, and Argentina, may be better off in terms of happiness compared to their counterparts in the origin countries. Yet immigrants in the United States, Panama, and Portugal may not be happier after migrating, though the non-statistically significant findings may be due to the small sample sizes. Given the largest immigrant group in the United States in our matched sample are Mexicans, the nil happiness gains may also reflect

Table 5.2: Difference in Life Evaluation Levels Between Latin American Immigrants and Matched Stayers, Origin Countries with at Least 90 Migrants

	(1) Venezuela	(2) Brazil	(3) Mexico	(4) Argentina	(5) Bolivia	(6) Chile	(7) Colombia	(8) Nicaragua	(9) Paraguay	(10) Peru
Life evaluations difference	0.245	-0.516***	0.025	-0.299	0.400	-0.124	0.396*	1.058***	0.677**	0.685***
	(0.332)	(0.180)	(0.262)	(0.214)	(0.281)	(0.277)	(0.202)	(0.191)	(0.303)	(0.258)
N	196	500	236	348	190	210	556	718	186	222
Adj. R^2	0.024	0.060	0.105	0.041	0.032	0.095	0.078	0.058	0.052	0.060

Source: Authors' calculations based on Gallup World Poll data

Notes: Robust standard errors in parentheses. The differences are based on OLS regressions applied after statistical matching. All estimates are adjusted for the pre-treatment covariates (age groups, gender, education levels, country of origin, and year of interview).

Table 5.3: Difference in Life Evaluation Levels Between Latin American Immigrants and Matched Stayers, Destinations with at Least 90 Immigrants

	(1) United States	(2) Spain	(3) Costa Rica	(4) Argentina	(5) Panama	(6) Portugal
Life evaluations difference	0.038	0.396**	0.920***	0.587***	0.115	-0.326
	(0.291)	(0.173)	(0.190)	(0.202)	(0.330)	(0.362)
N	196	500	236	348	190	210
Adj. R^2	0.024	0.060	0.105	0.041	0.032	0.095

Source: Authors' calculations based on Gallup World Poll data

Notes: Robust standard errors in parentheses. The differences are based on OLS regressions applied after statistical matching. All estimates are adjusted for the pre-treatment covariates (age groups, gender, education levels, country of origin, and year of interview).

the illegal and low-skilled nature of this particular migrant stream.[26] The largest immigrant groups in Spain in our analysis sample are Argentinians and Colombians; and in Costa Rica – the Nicaraguans. Similarly, the largest immigrant group in our sample residing in Argentina are the Paraguayans; in Panama – the Colombians; and in Portugal – Brazilians.

The findings in Tables 5.1-5.3 suggest that while Latin Americans may realize some modest life evaluation gains due to migrating, the costs and benefits of migration are not uniform and depend on the context and the particular migration stream. These varied outcomes may be due to differing reasons for migrating, such as paths chosen for economic opportunity versus cultural affinity versus escaping from deteriorating political conditions. While it is not possible to observe the drivers of these individual choices, one can imagine that they could have differential

effects on subjective well-being outcomes. Our work comparing the life satisfaction of migrants from transition countries suggests that migrants who move to places where it is easy to assimilate culturally and/or also have the ability to return home frequently and with ease tend to have higher gains in subjective well-being than those who do not.[27]

3. Emigration's Consequences for the Well-being of the Family Left Behind at the Origin

Thus far, we have found that potential Latin American emigrants are frustrated achievers who may gain in terms of happiness from migrating. In this section, we examine the well-being of migrants' family members left behind in the countries of origin.

We rely on two questions in the Gallup World Poll: (i) whether the respondent has family abroad who left in the last five years and is still in the destination country and (ii) whether the respondent's household receives remittances (both in kind and monetary) from abroad. All analyses are for 2009-2010 due to the availability of the family abroad variable. The Poll included a question about which country respondents' relatives are in, and the top locations for Latin Americans were the U.S., Spain, and Argentina. We use several outcome variables capturing evaluative well-being, and positive and negative hedonic affect.[28]

Emigration can have conflicting consequences for the subjective well-being of the left behind. On the one hand, it may result in negative emotions due to the pain of separation. On the other hand, it may also increase psychological well-being if relatives back home know that migrants are expanding their opportunities abroad. Furthermore, remittances should at least in part compensate for the pain of separation. For example, remittance receipt is positively associated with life satisfaction in Latin America, possibly through increased financial security.[29] An additional study documents that migrant and non-migrant households in Cuenca, Ecuador experience similar happiness levels, arguing that remittances compensate migrant households for the pain of separation and the disruption of family life.[30]

About 17% of respondents in our analysis sample have a family member abroad who emigrated in the last five years (see Tables A6 and A7 in the Appendix for information regarding the analysis sample). The first set of results (Table 5.4) document the relationship between the emigration of family members and life evaluations (See Table A8 for detailed findings).

Our findings suggest a positive relationship between having family members abroad and life evaluations, which is independent of remittance receipt (Table 5.4). Having family abroad corresponds to an average increase in life evaluations by about 0.10 points (on a 0-10 scale) Models (1)-(2). This associated influence is substantively small.[31] Next, we net out the influence of the within-country income quintile of the respondent, thus comparing the well-being of households with similar levels of income Models (3)-(6). Having relatives and friends abroad is still positively associated with life evaluations.[32]

We next include variables for financial and living standard satisfaction and economic mobility, which are important determinants of the emigration decision, as shown above (Models (5)-(6) in Table 5.4). Once we control for this perceived economic status, the positive influence of having relatives and friends abroad becomes smaller and indistinguishable from zero. This suggests that part of the happiness "premium" for the left behinds associated with having relatives and friends abroad stems from the perceived economic mobility and financial security that comes with it.[33]

We also examined the relationship between family members moving abroad and smiling, stress, and depression (Table A9 in the Appendix). Having relatives abroad and remittance receipts have no association with smiling and stress. There is, however, is a clear relationship with reporting depression, which is independent of remittance receipt. Having relatives abroad is associated with one percentage point increase in the probability of feeling depressed the previous day; meanwhile, 13.7% of respondents with family abroad report depression feelings (Table A7). This likely reflects the pain of separation, and is independent of having a social network of family and friends on whom to rely in times of need. Additional analyses (not shown) reveal that the associated increase in depression resulting from the out-migration of family members also holds

Table 5.4: Emigration of Family Members, Remittances, and Life Evaluations

	(1) Life evaluations	(2) Life evaluations	(3) Life evaluations	(4) Life evaluations	(5) Life evaluations	(6) Life evaluations
Relatives abroad	0.124***	0.108**	0.085**	0.078*	0.063*	0.058
	(0.043)	(0.045)	(0.039)	(0.041)	(0.037)	(0.039)
Remittances		0.073		0.032		0.025
		(0.062)		(0.056)		(0.054)
Remittance control	N	Y	N	Y	N	Y
Income quintile controls	N	N	Y	Y	Y	Y
Economic mobility, financial satisfaction, living standard satisfaction	N	N	N	N	Y	Y
Country dummies and control variables	Y	Y	Y	Y	Y	Y
Observations	23,909	23,909	23,909	23,909	23,909	23,909
Adjusted R^2	0.152	0.152	0.163	0.163	0.230	0.230

Source: Authors' calculations based on Gallup World Poll data

Notes: Robust standard errors are reported in parentheses. All models include controls for social support, age, age squared, gender, marital status, child in the household, household size, education, unemployment status, pain yesterday, health problem, religiosity, freedom, urban location, and a dummy for year 2010. All regressions use the Gallup-provided survey weight. The sample includes Venezuela, Brazil, Mexico, Costa Rica, Argentina, Bolivia, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama Paraguay, Peru, and Uruguay and excludes the foreign-born in each country of interview.

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

once we net out the influence of income, financial and standard of living satisfaction, and economic mobility perceptions.

Our results are in line with to those in an earlier study, which looks at out-migration from several world regions.[34] Sub-Saharan Africa is the only other region displaying a similar statistically significant relationship between depression and the out-migration of family members. This very likely reflects the longer distance and at times illegal status that emigrants from these two regions (Latin America and sub-Saharan Africa) face when they arrive in the U.S. and Europe, and their related inability to return home frequently.

4. Conclusions

Chapter 6 in this report, as well as our earlier findings,[35] highlight the complex reasons for Latin Americans' higher than average well-being scores. The hedonic dimensions of well-being play a strong role in this explanation, and likely reflect cultural traits, such as the high value that Latins attach to family ties and quality of social life. Nevertheless, the strong role that learning or creativity plays in Latins' well-being goes well beyond the hedonic or daily dimensions of well-being and suggests a deeper appreciation of quality of life in the region. A puzzle, then, is why there is so much out-migration from the region.

Our exploration of the reasons for and the consequences of emigration in this chapter finds that factors such as income and perceived mobility lead many Latin Americans to sacrifice their family and social life at home to seek opportunities and better life chances abroad. Those who wish to emigrate are less satisfied with their lives and their economic situations than their counterparts who stay behind, and on average, they realize modest gains in terms of happiness once they move. While their family members left in the places of origin realize

modest life evaluation gains and benefit from the income gains that result from remittances, they are also more likely to report depression than are those without family members abroad.

In short, the Latin American happiness "premium" is not without its own paradoxes – migration being a primary example. Many individuals choose to leave to seek opportunities elsewhere, in order to be better able to provide for themselves and for the families they leave behind. Some migrant groups – such as the Paraguayans, Peruvians, and Nicaraguans abroad – may realize happiness benefits from emigrating. Yet not all Latin American migrants become happier by emigrating. Nor are there net positive effects for the families left behind, as increases in reported depression often offset their income gains. This reflects progress paradoxes that we have identified elsewhere, meanwhile, where significant income gains can co-exist with psychological costs.[36]

Appendix

Table A1: Variables Included in the Analyses (in Alphabetical Order)

Variable	Explanation
Anger yesterday	A binary indicator coded as 1 if the respondent reported experiencing a lot of anger the day before and 0 otherwise
Belief in hard work	A binary indicator coded as 1 if the respondent answered that people in this country can get ahead by working hard, and 0 if not
Children grow/Overall country assessment	Whether the respondent thinks that most children in this country have the opportunity to learn and grow every day (1=yes, 0=no)
Christian	Whether the respondent's religion is Christian or not
Confidence in government	Whether the respondent has confidence in the national government (1=yes, 0=no)
Corruption	Two separate binary indicators measuring whether the respondent thinks there is corruption in government (1=no, 2=yes, 3=no answer); Whether the respondent thinks there is corruption in businesses (1=no, 2=yes, 3=no answer).
Depressed yesterday	A binary indicator coded as 1 if the respondent felt depressed a lot during the previous day and 0 otherwise
Economic mobility	Respondent's assessment of current living standard: 1=Living standard getting better, 2=Living standard the same; 3=Living standard getting worse
Emigration aspirations	A binary indicator coded as 1 if respondents answered "yes" to the question "Ideally, if you had the opportunity, would you like to move PERMANENTLY to another country, or would you prefer to continue living in this country?" and 0 if they answered "no"
Emigration plans	A binary indicator coded as 1 if respondents answered "yes" to the question "Are you planning to move permanently to another country in the next 12 months, or not?" and 0 if they had no migration intentions. (Defined for all respondents who answered the emigration aspirations question)
Financial satisfaction	Feeling about current household income, coded as 1 if respondents are "living comfortably on present income," 2 if they responded "getting by on present income," and 3 if they responded "finding it difficult on present income" or "finding it very difficult on present income"
Freedom	Whether the respondent is satisfied with the freedom to choose what do to with his or her life in this country (1=yes, 0=no)
Health problem	Whether the respondent has a health problem preventing him or her to do things other people his or her age normally do (1=yes, 0=no)
Household and demographic variables	Age, age squared gender, education, household size, indicator for presence of child(ren) in the household, religiosity, marital status, urban/rural location dummy, employment status.
Household income	This variable is based on the Gallup-provided household income in international dollars
Income quintile	Within-country income quintiles based on household income in the local currency. Respondents are coded as 1 if they belong to the respective quintile and 0 otherwise. Respondents can only belong to one quintile.
Learned yesterday	A binary indicator coded as 1 if respondents answered "yes" to the question "Did you learn or do something interesting yesterday?" and 0 if they answered "no"
Life evaluations	The response to the question of respondents' assessment of their current life based on an imaginary 11-point scale whereby 0 designates one's worst possible life and 10 denotes the best possible life respondents can imagine for themselves. Based on the question "Please imagine a ladder with steps numbered from zero at the bottom to ten at the top. Suppose we say that the top of the ladder represents the best possible life for you, and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time, assuming that the higher the step the better you feel about your life, and the lower the step the worse you feel about it? Which step comes closest to the way you feel?"
Living standard satisfaction	Satisfaction with living standard, whereby 1=yes, and 0=no
Network	Constructed using a series of questions related to whether the respondent has friends or relatives on whom they can count when they need them, whether household members or relatives work abroad, and whether the respondent's household has received remittances
Pain	Whether the respondent experienced a lot of physical pain the day before
Relative abroad	A binary indicator variable based on responses to the question "Have any members of your household gone to live in a foreign country permanently or temporarily in the past five years?" 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	Based on the question: "In the past 12 months, did this household receive help in the form of money or goods from another individual?" A binary indicator variable was constructed taking the value of 1 for respondents receiving money or goods from an individual abroad and both abroad and from this country, and zero otherwise
Smiled yesterday	A binary indicator coded as 1 if the respondent reported smiling a lot the day before and 0 if they did not
Social support	Whether the respondent has family and friends to rely on in times of trouble (1=yes, 0=no)
Stress yesterday	A binary indicator coded as 1 if the respondent reported experiencing a lot of stress the day before and 0 otherwise

Source: Authors based on Gallup World Poll documentation; the questions pertain to Gallup: Copyright © 2005-2018 Gallup, Inc.

Table A2: Number of Observations per Country and Year of Interview, Emigration Intentions and Aspirations Analysis Samples

	Emigration aspirations								Emigration aspirations					
	2009	2010	2011	2012	2013	2014	2015	2016	2010	2011	2012	2013	2014	2015
Argentina	813	783	808	791	828	827	714	774	783	808	791	828	827	714
Bolivia	753	836	843	854	850	831	676		753	836	843	854	850	831
Brazil	916	900	914	1,780	902	921	890		900	914	1,780	902	921	
Chile	836	817	876	791	879	806	903	870	817	876	791	879	806	903
Colombia	807	887	866	902	852	897	870	833	887	866	902	852	897	870
Costa Rica	771	793	785	810	746	700	651		771	793	785	810	746	700
Ecuador	800	817	838	875	841				817	838	875			
El Salvador	790	793	839	896	871	842	675	636	793	839	896	871	842	675
Guatemala	818	840	880	834	634	626			840	880	834	634		
Honduras	784	670	857	862	844	862	729	591	670	857	862	844	862	729
Mexico	624	758	766	701	782	877	851		758	766	701	782	877	
Nicaragua	884	788	786	832	856	805	662	799	788	786	832	856	805	662
Panama	843	730	811	780	848	756	817	635	730	811	780	848	756	817
Paraguay	795	748	828	894	849	830	739		748	828	894	849	830	739
Peru	745	734	753	737	820	770	831	812	734	753	737	820	770	831
Uruguay	771	629	657	762	737	796	710	668	629	657	762	737	796	710
Venezuela	634	771	782	806	809	795	773	845	771	782	806	809	795	773

Source: Authors' calculations based on Gallup World Poll data

Table A3: Selected Summary Statistics for Respondents with Emigration Aspirations and Emigration Plans

Variable	No aspirations, N=77,767		Aspirations, N=23,550		No plans, N=75,378		Plans, N=2,081	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Live evaluations (0-10 scale)	6.349	2.354	6.134	2.420	6.311	2.355	6.038	2.499
Smiled yesterday (1=yes)	0.863	0.344	0.848	0.359	0.862	0.345	0.844	0.363
Within-country income quintiles								
Q1	0.213	0.410	0.182	0.386	0.205	0.404	0.167	0.373
Q2	0.201	0.400	0.184	0.388	0.200	0.400	0.174	0.379
Q3	0.194	0.395	0.194	0.396	0.193	0.394	0.179	0.384
Q4	0.190	0.392	0.205	0.404	0.192	0.394	0.203	0.402
Q5	0.202	0.402	0.234	0.423	0.211	0.408	0.276	0.447
Financial satisfaction								
Living comfortably on current income	0.147	0.354	0.137	0.344	0.150	0.357	0.163	0.369
Getting by on current income	0.472	0.499	0.432	0.495	0.465	0.499	0.424	0.494
Difficult on current income	0.380	0.485	0.430	0.495	0.385	0.487	0.413	0.493
Living standard satisfaction	0.741	0.438	0.668	0.471	0.734	0.442	0.682	0.466
Economic mobility								
Better	0.517	0.500	0.524	0.499	0.527	0.499	0.550	0.498
No change	0.313	0.464	0.250	0.433	0.303	0.459	0.216	0.412
Worse	0.170	0.375	0.227	0.419	0.171	0.376	0.234	0.423
Education								
Elementary	0.376	0.485	0.262	0.440	0.354	0.478	0.247	0.431
Secondary	0.513	0.500	0.601	0.490	0.531	0.499	0.565	0.496
Tertiary	0.110	0.313	0.136	0.343	0.115	0.319	0.188	0.391
Unemployed	0.067	0.249	0.113	0.317	0.079	0.269	0.155	0.362

Source: Authors' calculations based on Gallup World Poll data

Notes: The reported statistics were weighted using the Gallup-provided survey weight. The sample includes Venezuela, Brazil, Mexico, Costa Rica, Argentina, Bolivia, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama Paraguay, Peru, and Uruguay and excludes the foreign-born in each country of interview. The means of all variables are statistically significantly different from each other at the 5% confidence level or lower. The exceptions are: the proportion of respondents in Q3 for those in the aspirations sample and Q2 in the plans sample.

Table A4: Emigration Aspirations and Plans, Logistic Regressions, Average Marginal Effects

	(1) Aspirations	(2) Plans	(3) Aspirations	(4) Plans
	Key independent Variable: Life evaluations		Key independent Variable: Smiled yesterday	
Subjective well-being	-0.003***	-0.001**	-0.024***	-0.006***
	(0.001)	(0.000)	(0.004)	(0.002)
Within-country income quintiles (Ref: Q1(poorest))				
Q2	0.006	0.001	0.005	0.001
	(0.005)	(0.002)	(0.005)	(0.002)
Q3	0.011**	0.001	0.010**	0.001
	(0.005)	(0.002)	(0.005)	(0.002)
Q4	0.010**	-0.001	0.010*	-0.001
	(0.005)	(0.002)	(0.005)	(0.002)
Q5	0.011**	0.001	0.010*	0.001
	(0.005)	(0.003)	(0.005)	(0.003)
Financial satisfaction (Ref: Living comfortably on current income)				
Getting by on current income	0.005	-0.001	0.006	-0.001
	(0.005)	(0.002)	(0.005)	(0.002)
Difficult on current income	0.029***	0.000	0.030***	0.001
	(0.005)	(0.002)	(0.005)	(0.002)
Living standard satisfaction	-0.044***	-0.004**	-0.045***	-0.005**
	(0.004)	(0.002)	(0.004)	(0.002)
Economic mobility (Ref: Better)				
No change	-0.013***	-0.005***	-0.013***	-0.005***
	(0.004)	(0.002)	(0.004)	(0.002)
Worse	0.040***	0.008***	0.042***	0.008***
	(0.005)	(0.002)	(0.005)	(0.002)
Education (Ref: Elementary)				
Secondary	0.029***	0.003	0.029***	0.003
	(0.004)	(0.002)	(0.004)	(0.002)
Tertiary	0.042***	0.011***	0.041***	0.010***
	(0.006)	(0.003)	(0.006)	(0.003)
Unemployed	0.041***	0.015***	0.042***	0.015***
	(0.006)	(0.003)	(0.006)	(0.003)
Age	-0.004***	0.001*	-0.004***	0.001*
	(0.001)	(0.000)	(0.001)	(0.000)
Age²/100	-0.001*	-0.001***	-0.001*	-0.001***
	(0.001)	(0.000)	(0.001)	(0.000)
Female	-0.027***	-0.007***	-0.027***	-0.007***
	(0.003)	(0.001)	(0.003)	(0.001)
Married/Partnership	-0.039***	-0.010***	-0.039***	-0.010***
	(0.003)	(0.002)	(0.003)	(0.002)
Child in household	0.009**	0.000	0.009**	0.000
	(0.004)	(0.002)	(0.004)	(0.002)
Household size	0.000	-0.000	0.000	-0.000
	(0.001)	(0.000)	(0.001)	(0.000)
Health problem	-0.001	0.001	-0.001	0.001
	(0.004)	(0.002)	(0.004)	(0.002)
Pain	0.014***	0.003*	0.012***	0.003*
	(0.003)	(0.002)	(0.003)	(0.002)
Freedom	-0.016***	-0.004**	-0.016***	-0.004**
	(0.004)	(0.002)	(0.004)	(0.002)

Table A4: Emigration Aspirations and Plans, Logistic Regressions, Average Marginal Effects (continued)

	(1) Aspirations	(2) Plans	(3) Aspirations	(4) Plans
	Key independent Variable: Life evaluations		Key independent Variable: Smiled yesterday	
Social support	-0.018***	-0.006***	-0.018***	-0.006***
	(0.005)	(0.002)	(0.005)	(0.002)
Children grow/Overall country assessment	-0.026***	0.001	-0.025***	0.001
	(0.003)	(0.001)	(0.003)	(0.001)
Confidence in government	-0.054***	-0.006***	-0.054***	-0.006***
	(0.003)	(0.002)	(0.003)	(0.002)
Corruption in government (Ref: No)				
Yes	0.025***	-0.000	0.025***	-0.000
	(0.004)	(0.002)	(0.004)	(0.002)
No answer	-0.001	-0.009**	-0.001	-0.009**
	(0.008)	(0.004)	(0.008)	(0.004)
Corruption in business (Ref: No)				
Yes	0.040***	0.006***	0.040***	0.006***
	(0.004)	(0.002)	(0.004)	(0.002)
No answer	0.018**	0.002	0.019**	0.002
	(0.008)	(0.004)	(0.008)	(0.004)
Urban location	0.029***	0.003**	0.029***	0.003**
	(0.003)	(0.002)	(0.003)	(0.002)
Network	0.130***	0.036***	0.130***	0.036***
	(0.003)	(0.002)	(0.003)	(0.002)
Country and Year dummies	Yes	Yes	Yes	Yes
Observations	101,317	77,459	101,317	77,459
Pseudo R^2	0.137	0.135	0.137	0.135

Source: Authors' calculations based on Gallup World Poll data

Notes: The table shows the average marginal effects from logistic regression estimates (using the Gallup-provided survey weight). Robust standard errors are reported in parentheses. The dependent variable in all models equals 1 if the individual expressed willingness or plans to move permanently to another country. The subjective well-being variable in Models (1)-(2) is life evaluations, and in models (3)-(4)-smiling yesterday. Life evaluations (Best Possible Life) measures the respondent's assessment of her current life relative to her best possible life on a scale of 0 to 10, where 0 is the worst possible life and 10 is the best possible life. Smiled yesterday is a binary indicator for whether the respondent reported smiling the previous day. The sample includes Venezuela, Brazil, Mexico, Costa Rica, Argentina, Bolivia, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama Paraguay, Peru, and Uruguay and excludes the foreign-born in each country of interview.

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

Table A5: Summary Statistics, Latin American Immigrants and Stayers, Matched Sample

Variable	Immigrants, N=2,131		Stayers, N=2,131	
	Mean	Std. Dev.	Mean	Std. Dev.
Age	41.968	16.166	41.888	16.065
Female	0.597	0.491	0.597	0.491
Education				
Elementary	0.283	0.451	0.283	0.451
Secondary	0.555	0.497	0.555	0.497
Tertiary	0.162	0.368	0.162	0.368
Country of birth				
Venezuela	0.046	0.210	0.046	0.210
Brazil	0.117	0.322	0.117	0.322
Mexico	0.055	0.229	0.055	0.229
Costa Rica	0.009	0.096	0.009	0.096
Argentina	0.082	0.274	0.082	0.274
Bolivia	0.045	0.206	0.045	0.206
Chile	0.049	0.216	0.049	0.216
Colombia	0.130	0.337	0.130	0.337
Dominican Republic	0.028	0.165	0.028	0.165
Ecuador	0.029	0.168	0.029	0.168
El Salvador	0.030	0.169	0.030	0.169
Guatemala	0.034	0.182	0.034	0.182
Haiti	0.023	0.148	0.023	0.148
Honduras	0.017	0.131	0.017	0.131
Jamaica	0.003	0.057	0.003	0.057
Nicaragua	0.168	0.374	0.168	0.374
Panama	0.007	0.084	0.007	0.084
Paraguay	0.044	0.204	0.044	0.204
Peru	0.052	0.222	0.052	0.222
Puerto Rico	0.001	0.038	0.001	0.038
Suriname	0.004	0.061	0.004	0.061
Trinidad and Tobago	0.001	0.031	0.001	0.031
Uruguay	0.024	0.154	0.024	0.154
Survey year				
2009	0.105	0.306	0.105	0.306
2010	0.115	0.320	0.115	0.320
2011	0.113	0.317	0.113	0.317
2012	0.129	0.335	0.129	0.335
2013	0.091	0.287	0.091	0.287
2014	0.179	0.384	0.179	0.384
2015	0.132	0.338	0.132	0.338
2016	0.137	0.343	0.137	0.343

Source: Authors' calculations based on Gallup World Poll data

Notes: The table shows the means and standard deviations of the analysis samples after matching - the means and standard deviations are (almost) identical for both groups due to the exact matching technique we applied.

Table A6: Number of Observations per Country and Year of Interview, Left Behind Analysis Sample

Country	2009	2010
Argentina	860	830
Bolivia	808	
Brazil	958	980
Chile	887	875
Colombia	847	929
Costa Rica		797
Ecuador	887	
El Salvador	771	
Guatemala	834	

Country	2009	2010
Honduras	830	683
Mexico	638	793
Nicaragua	926	836
Panama	865	786
Paraguay	860	823
Peru	778	773
Uruguay	821	679
Venezuela	699	856

Source: Authors' calculations based on Gallup World Poll data

Table A7: Summary Statistics for Respondents with and Without Relative Abroad

Variable	No family abroad, N=19,933		Family abroad, N=3,976	
	Mean	Std. Dev.	Mean	Std. Dev.
Live evaluations (0-10 scale)	6.414	2.305	6.336	2.287
Smiled yesterday (1=yes)	0.859	0.348	0.868	0.338
Stress yesterday (1=yes)	0.256	0.437	0.271	0.444
Depressed yesterday (1=yes)	0.113	0.317	0.137	0.344
Remittances	0.038	0.192	0.302	0.459
Age	37.994	16.905	36.001	17.176
Female	0.516	0.500	0.489	0.500
Married	0.539	0.499	0.479	0.500
Child in household	0.607	0.488	0.650	0.477
Household size	4.691	2.083	4.977	2.217
Education				
Elementary	0.372	0.483	0.335	0.472
Secondary	0.522	0.500	0.537	0.499
Tertiary	0.111	0.314	0.148	0.355
Unemployed	0.068	0.251	0.064	0.245
Pain	0.259	0.438	0.282	0.450
Health problem	0.208	0.406	0.220	0.414
Religiosity	0.795	0.403	0.830	0.375
Freedom	0.749	0.433	0.742	0.437
Social support	0.871	0.336	0.899	0.302
Urban location	0.615	0.487	0.602	0.490

Source: Authors' calculations based on Gallup World Poll data

Notes: The reported statistics were weighted using the Gallup-provided survey weight. The sample includes Venezuela, Brazil, Mexico, Costa Rica, Argentina, Bolivia, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama Paraguay, Peru, and Uruguay and excludes the foreign-born in each country of interview. All differences in means between the two groups are statistically significant except those for smiling, depression, unemployment, freedom, and urban location.

Table A8: Emigration of Family Members, Remittances, and Life Evaluations

	(1) Life evaluations	(2) Life evaluations	(3) Life evaluations	(4) Life evaluations	(5) Life evaluations	(6) Life evaluations
Relatives abroad	0.124***	0.108**	0.085**	0.078*	0.063*	0.058
	(0.043)	(0.045)	(0.039)	(0.041)	(0.037)	(0.039)
Remittances		0.073		0.032		0.025
		(0.062)		(0.056)		(0.054)
Social support	0.755***	0.752***	0.688***	0.687***	0.405***	0.404***
	(0.046)	(0.046)	(0.046)	(0.046)	(0.044)	(0.044)
Within-country income quintiles (Ref: Q1(poorest))						
Q2			0.254***	0.253***	0.155***	0.155***
			(0.045)	(0.046)	(0.044)	(0.044)
Q3			0.463***	0.462***	0.270***	0.269***
			(0.046)	(0.046)	(0.045)	(0.045)
Q4			0.640***	0.639***	0.355***	0.354***
			(0.046)	(0.046)	(0.045)	(0.045)
Q5			0.869***	0.868***	0.435***	0.434***
			(0.048)	(0.048)	(0.049)	(0.049)
Financial satisfaction (Ref: Living comfortably on current income)						
Getting by on current income					-0.336***	-0.336***
					(0.040)	(0.040)
Difficult on current income					-0.672***	-0.672***
					(0.048)	(0.048)
Economic mobility (Ref: Better)						
No change					-0.307***	-0.307***
					(0.031)	(0.031)
Worse					-0.925***	-0.925***
					(0.046)	(0.046)
Living standard satisfaction					0.767***	0.767***
					(0.034)	(0.034)
Age	-0.053***	-0.053***	-0.054***	-0.054***	-0.032***	-0.032***
	(0.005)	(0.005)	(0.004)	(0.004)	(0.004)	(0.004)
Age^2/100	0.047***	0.047***	0.048***	0.048***	0.029***	0.029***
	(0.005)	(0.005)	(0.005)	(0.005)	(0.004)	(0.004)
Female	0.108***	0.107***	0.136***	0.136***	0.138***	0.138***
	(0.032)	(0.032)	(0.028)	(0.028)	(0.027)	(0.027)
Married/In partnership	-0.003	-0.002	-0.019	-0.018	-0.028	-0.028
	(0.036)	(0.036)	(0.031)	(0.031)	(0.030)	(0.030)
Child in household	-0.120***	-0.120***	-0.103***	-0.103***	-0.089***	-0.089***
	(0.039)	(0.039)	(0.035)	(0.035)	(0.033)	(0.033)
Household size	-0.016	-0.016	-0.027***	-0.027***	-0.012	-0.012
	(0.010)	(0.010)	(0.009)	(0.009)	(0.008)	(0.008)
Education (Ref: Elementary)						
Secondary education	0.445***	0.444***	0.285***	0.284***	0.249***	0.249***
	(0.041)	(0.041)	(0.037)	(0.037)	(0.035)	(0.035)
Tertiary education	0.761***	0.760***	0.426***	0.426***	0.353***	0.353***
	(0.054)	(0.054)	(0.050)	(0.050)	(0.048)	(0.048)

Table A8: Emigration of Family Members, Remittances, and Life Evaluations
(continued)

	(1) Life evaluations	(2) Life evaluations	(3) Life evaluations	(4) Life evaluations	(5) Life evaluations	(6) Life evaluations
Unemployed	-0.615***	-0.615***	-0.575***	-0.575***	-0.317***	-0.317***
	(0.074)	(0.074)	(0.063)	(0.063)	(0.061)	(0.061)
Pain yesterday	-0.377***	-0.377***	-0.371***	-0.371***	-0.215***	-0.215***
	(0.037)	(0.037)	(0.033)	(0.033)	(0.032)	(0.032)
Health problem	-0.458***	-0.459***	-0.449***	-0.449***	-0.276***	-0.276***
	(0.042)	(0.042)	(0.037)	(0.037)	(0.036)	(0.036)
Religiosity	0.036	0.035	0.062*	0.061*	0.005	0.005
	(0.041)	(0.041)	(0.036)	(0.036)	(0.034)	(0.034)
Freedom	0.295***	0.295***	0.251***	0.251***	0.086***	0.086***
	(0.037)	(0.037)	(0.032)	(0.032)	(0.031)	(0.031)
Urban location	0.255***	0.254***	0.154***	0.153***	0.197***	0.197***
	(0.035)	(0.035)	(0.031)	(0.031)	(0.030)	(0.030)
Year 2010	0.051	0.051	0.073**	0.073**	0.022	0.022
	(0.035)	(0.035)	(0.031)	(0.031)	(0.029)	(0.029)
Constant	6.498***	6.498***	6.382***	6.382***	6.480***	6.480***
	(0.129)	(0.129)	(0.114)	(0.114)	(0.117)	(0.117)
Country dummies	Y	Y	Y	Y	Y	Y
Observations	23,909	23,909	23,909	23,909	23,909	23,909
Adjusted R^2	0.152	0.152	0.163	0.163	0.230	0.230

Source: Authors' calculations based on Gallup World Poll data

Notes: Robust standard errors are reported in parentheses. All regressions use the Gallup-provided survey weight. The sample includes Venezuela, Brazil, Mexico, Costa Rica, Argentina, Bolivia, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama Paraguay, Peru, and Uruguay and excludes the foreign-born in each country of interview.

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

Table A9: Emigration of Family Members, Remittances, Positive and Negative Hedonic Well-Being, Logistic Regressions, Average Marginal Effects

	(1)	(2)	(3)	(4)	(5)	(6)
	Smiled yesterday	Smiled yesterday	Stress yesterday	Stress yesterday	Depressed yesterday	Depressed yesterday
Relatives abroad	0.008	0.011	0.010	0.006	0.010*	0.011*
	(0.007)	(0.007)	(0.008)	(0.009)	(0.006)	(0.006)
Remittances		-0.014		0.018		-0.003
		(0.010)		(0.012)		(0.008)
Social support	0.064***	0.064***	-0.052***	-0.053***	-0.054***	-0.054***
	(0.008)	(0.008)	(0.009)	(0.009)	(0.007)	(0.007)
Age	-0.004***	-0.004***	0.010***	0.010***	0.004***	0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Age^2/100	0.004***	0.004***	-0.012***	-0.012***	-0.004***	-0.004***
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Female	-0.009*	-0.009*	0.036***	0.036***	0.026***	0.026***
	(0.005)	(0.005)	(0.006)	(0.006)	(0.005)	(0.005)
Married/In partnership	0.008	0.008	0.000	0.000	-0.016***	-0.016***
	(0.006)	(0.006)	(0.007)	(0.007)	(0.005)	(0.005)
Child in household	-0.005	-0.005	0.012	0.012	0.009	0.009
	(0.006)	(0.006)	(0.008)	(0.008)	(0.006)	(0.006)
Household size	0.001	0.001	0.001	0.001	-0.001	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.001)	(0.001)
Education (Ref: Elementary)						
Secondary education	0.008	0.008	0.022***	0.022***	-0.013**	-0.013**
	(0.006)	(0.006)	(0.007)	(0.007)	(0.006)	(0.006)
Tertiary education	0.014	0.014	0.029***	0.028**	-0.043***	-0.043***
	(0.009)	(0.009)	(0.011)	(0.011)	(0.007)	(0.007)
Unemployed	-0.023**	-0.023**	0.016	0.016	0.059***	0.059***
	(0.011)	(0.011)	(0.013)	(0.013)	(0.011)	(0.011)
Pain yesterday	-0.094***	-0.094***	0.243***	0.243***	0.136***	0.136***
	(0.007)	(0.007)	(0.008)	(0.008)	(0.006)	(0.006)
Health problem	-0.028***	-0.028***	0.068***	0.068***	0.063***	0.063***
	(0.007)	(0.007)	(0.008)	(0.008)	(0.006)	(0.006)
Religiosity	0.036***	0.036***	-0.006	-0.006	0.002	0.002
	(0.007)	(0.007)	(0.008)	(0.008)	(0.006)	(0.006)
Freedom	0.043***	0.043***	-0.052***	-0.052***	-0.023***	-0.023***
	(0.006)	(0.006)	(0.007)	(0.007)	(0.005)	(0.005)
Urban location	0.004	0.004	0.042***	0.042***	0.010**	0.010**
	(0.006)	(0.006)	(0.007)	(0.007)	(0.005)	(0.005)
Year 2010	0.009*	0.009*	-0.009	-0.009	-0.009*	-0.009*
	(0.005)	(0.005)	(0.007)	(0.007)	(0.005)	(0.005)
Country dummies	Y	Y	Y	Y	Y	Y
Observations	23,909	23,909	23,909	23,909	23,909	23,909
Pseudo R^2	0.054	0.0541	0.096	0.096	0.137	0.137

Table A9: Emigration of Family Members, Remittances, Positive and Negative Hedonic Well-Being, Logistic Regressions, Average Marginal Effects (continued)

Source: Authors' calculations based on Gallup World Poll data

Notes: The table shows the average marginal effects from logistic regression estimates (using the Gallup-provided survey weight). Robust standard errors are reported in parentheses. The dependent variable in all models equals 1 if the individual experienced the emotion the day before (smiling in Models (1)-(2), stress in Models (3)-(4), or depression in Models (5)-(6)). The sample includes Venezuela, Brazil, Mexico, Costa Rica, Argentina, Bolivia, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama Paraguay, Peru, and Uruguay and excludes the foreign-born in each country of interview.

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

Endnotes

1   Ivlevs et al. (2016), Nikolova & Graham (2015a, 2015b).

2   The GWP is an annual survey fielded in about 160 countries worldwide, and is representative of each country's civilian population aged 15 and older, and more than 99% world's adult population. Here we provide insights for these questions using the latest available data for Latin America in the Poll. Since key variables for our analyses such as income and employment status are available from 2009 onwards, our analyses focus on the years 2009-2016 and cover the following Latin American countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela. As they are geographically and culturally distinct from the Latin American countries, we exclude the Caribbean nations (Cuba, the Dominican Republic, Haiti, Jamaica, Trinidad and Tobago, and Puerto Rico). Due to the small sample size of about 500 respondents – polled only once – we also exclude Suriname and Belize. Graham is a Senior Scientist at Gallup and Nikolova a collaborator and, as such, have access to the data.

3   One notable exception is a recent study of return migration to rural areas in Peru conducted by Richard Webb (2013). Webb highlights the important role of improved transportation infrastructure and access to technology (cell phones in particular) in spurring rural residents to return to rural towns and villages to start small businesses. While there are likely other countries that display these trends, we do not have sufficient data, either on return migration or on well-being, to take this topic on.

4   The emigration plans variable is defined for all respondents who answered the emigration aspirations/intentions question. The emigration plans question was not asked in 2009 and 2016.

5   Creighton (2013), Simmons (1985), van Dalen & Henkens (2008, 2013)

6   Massey et al. (1993), Sjaastad (1962)

7   Hanson (2010)

8   Ivlevs (2014)

9   Chindarkar (2014), Graham and Markowitz (2011)

10 Graham and Pettinato (2002)

11 Graham and Markowitz (2011)

12 Similarly, again relying on Latinobarometro data, Chindarkar (2014) shows that life satisfaction is also associated with emigration intentions. Respondents with life satisfaction scores of 3 and 4 (on a 1-4 scale) were two to four percentage points less likely to express emigration intentions.

13 The sample sizes for each country and year are in Table A2 in the Appendix.

14 Graham and Markowitz (2011), Chindarkar (2014)

15 Manchin & Orazbayev (2015)

16 These findings are corroborated by some earlier work by the Gallup Organization and the IOM. See Esipova, Ray, and Pugliese (2011).

17 Our results should be interpreted as conditional correlations rather than as causal estimates, due to a number of methodological and data issues – in particular the cross-sectional nature (see Ivlevs (2014) for a discussion of the methodological challenges).

18 We rely on Shapley-based decomposition, which splits the goodness of fit statistic (i.e., the pseudo R^2 in this case) into the relative percentage contributions of each included independent variable (Israeli, 2007; Shorrocks, 2013). To conduct the decompositions, we relied on Stata's user-written command shapley2 (Juarez, 2012). The pseudo R^2 value shows that we were only able to explain about 14% of the variation in emigration aspirations and plans using the included variables in the model.

19 Nikolova and Graham (2015a); see also Esipova, Ray, and Pugliese (2011).

20 By "selective traits," we mean characteristics such as ability, risk preferences, and aspirations. See Chapter 3 in this report and Nikolova (2015) for the associated challenges of measuring migration's subjective well-being consequences.

21 We used one-to-one nearest neighbor matching without replacement with a caliper (i.e., maximum allowable distance between the propensity scores) of 0.01. Our matching covariates include age group indicators, as well as gender, country of origin, year of interview, and education. Specifically, we applied exact matching. We excluded income and employment status from the matching covariates as these variables may be influenced by migration itself (see Nikolova and Graham (2015a)). Next, we checked whether on average, the matching covariates are balanced for the migrants and stayers (i.e., whether the means are statistically indistinguishable from zero) and our checks indicate that covariance balance is achieved. Summary statistics are available in Table A5. Finally, we kept the pairs of immigrants and matched stayers that were on the common support. We ran OLS regressions with the matched sample whereby the dependent variable is life evaluations, the focal independent variable is whether the immigrant is a migrant or a stayer. We also include the matching covariates for precision.

22 Nikolova and Graham (2015a)

23 The matched sample is representative of the birth countries and destination countries of all Latin-American immigrant respondents in the GWP.

24 Our findings are very similar to yet slightly different from those in Chapter 3 due to the differences in methodology. Our findings also differ from those in Stillman et al. (2015) who document that migration from Tonga to New Zealand lowers movers' hedonic well-being despite improvements in income, mental well-being, and income adequacy perceptions. The differences with Stillman et al. (2015) are likely due to differences in the origin and destination countries and in methodology.

25 In Nikolova and Graham (2015a), we show that migrants from transition economies realize happiness, income, and freedom perception gains when they move to developed countries. In that paper, we also present suggestive evidence that distance (cultural as well as physical) is negatively correlated with the life evaluations of the immigrants. We also document a North/South difference in terms of well-being gains (with migrants living in advanced western societies gaining more than those living in the South i.e., Italy, Greece, Portugal, Spain) and post-socialist migrants moving to the "old" EU gaining the most in terms of both happiness and income.

26 It is important to note that Gallup does not collect data on the legal status of immigrants. This is our interpretation of the results.

27 Nikolova and Graham (2015a)

28 Our methodology is similar to that in Ivlevs et al. (2016).

29 Cárdenas et al. (2009)

30 Borraz et al. (2010)

31 Evaluated at the sample mean, the coefficient estimate is about 1.5 percent.

32 These findings resonate with those for Latin America and the Caribbean in Ivlevs et al. (2016). The main difference is that in Ivlevs et al., in addition to having relatives and friends abroad, the remittance variable is also positive and statistically significant, likely due to the inclusion of the poorer Caribbean countries, whereby remittances enhance the life evaluation effects of being a migrant-sending household.

33 Our findings corroborate those in 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. They also echo our previous finding that the emigration of family members is associated with higher levels of depression in more unequal countries (and the world's most unequal countries are in sub-Saharan Africa and Latin America) (see Ivlevs et al. (2016)).

34 Ivlevs et al. (2016)

35 Graham and Nikolova (2015)

36 Graham & Pettinato (2002), Graham et al. (2017)

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