

# Child-related Concerns and Migration Decisions: Evidence from the Gallup World Poll

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## CHILD-RELATED CONCERNS AND MIGRATION DECISIONS: EVIDENCE FROM THE GALLUP WORLD POLL

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### ABSTRACT

Current times are characterized by unprecedented migration levels: millions of people are on the move worldwide. Thus, understanding why people decide to migrate is a major goal of policymakers and international organizations, and migration has become a prominent issue on the global research agenda. Traditional migration drivers can be divided into reasons to leave ('push' factors) and reasons to migrate ('pull' factors), and include income deprivation, dissatisfaction with public services and institutions in the home country, conflict and war, climate change, and social networks abroad. In this paper, we focus our attention on children's well-being as a potential migration driver. We investigate it by using the Gallup World Poll, a repeated cross-section dataset of a survey conducted in more than 150 countries from 2006 to 2016. We estimate the association between planned and intended migration and children's perceived well-being using logit models with standardized coefficients, robust standard errors, and year and country fixed effects. Estimates reveal a positive and statistically significant association between child-related concerns, migration intent and plans. In particular, the probability of individuals having migration intent and plans increases where they report lower levels of satisfaction with child-related issues, as measured by the Youth Development Index, an index driven by indicators of respect for children and satisfaction with the education system. Moreover, children's well-being affects more individuals living in households with children than those without. Finally, migration is a child- and youth-related phenomenon: young individuals would like to migrate, and plan to do so, more than older individuals.

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**Keywords:** migration intent, migration plan, migration driver, children's concerns, children's well-being, Youth Development Index, Gallup World Poll

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## 1. INTRODUCTION

Migration is a massive social phenomenon that has shaped human history and civilization since their origin. People have been moving across regions, countries and continents for millennia in search of greater opportunities and resources. Nowadays, it is also an extremely urgent and complex issue that has gained momentum in the political arena. We are facing the consequences of one of the biggest migration crises ever seen, which began at the start of the Syrian war. In 2015, the United Nations recorded 21.3 million refugees globally, the highest number of refugees since the Second World War, and about 244 million migrants worldwide. Children under 18 years of age constitute about half of the refugee population (10.5 million persons) and 12 per cent of the migrant population (31 million persons).<sup>1</sup> Despite these huge figures, we expect the absolute number of children affected by migration to be even higher: beyond those directly involved in migration, whether as independent migrants or as children moving with their parents, there are those indirectly affected by migration, for example, the children left behind. While international policy and research have primarily focused on the consequences of migration on children, children may also constitute a reason to move in the first instance.

Migration has gained the increasing attention of academics, politics and the media. Understanding why people decide to move is a major issue in social and economic research. The literature on migration drivers is extremely vast and heterogeneous, and migration drivers are many, complex and multifaceted. People decide to migrate for a combination of economic and non-economic reasons, often driven by a motivation to secure a safer, higher standard of living; achieve greater happiness; and/or reach relatives and friends. Others are forced to migrate: they escape from war, conflict or other humanitarian crises such as natural disasters.

These reasons for migration are traditionally divided into 'push' and 'pull' factors. The former group constitutes the reasons to leave a given location, while the latter encompasses the reasons to migrate to another. In other words, push factors are negative elements in the home country that force or induce people to migrate, while pull factors are positive elements in the destination country that attract people. Among push factors, literature broadly recognizes: (i) governance and public service factors: people may leave their country because of poor governance, corruption and lack of health and education services<sup>2</sup>, (ii) political insecurity and conflicts: for example, Bang and Mitra offer evidence on the positive relationship between civil war and highly skilled migration (387-401);<sup>3</sup> (iii) lack of economic opportunity and poverty: Stark and Jakubek use data from Poland to show that the Gini index and migration are positively correlated(1-7);<sup>4</sup> (iv) climate change and natural disasters: various studies highlight the indirect effects of environmental changes on migration, operating especially through economic drivers.<sup>5</sup> Among pull factors, prominence is given to: (i) the 'diaspora' or social network abroad: various studies show that existing networks encourage further migration and represent

1 United Nations High Commissioner for Refugees, *Global Trends. Forced Displacement in 2015*, UNHCR, Geneva, 2016.

2 Poprawe, M. 'On the relationship between corruption and migration: empirical evidence from a gravity model of migration.', *Public Choice*, vol.163, no. 3-4, 2015, pp. 337-354; Anrea A., F. Docquier and M. P. Squicciarini, 'Governance quality and net migration flows', *Regional Science and Urban Economics*, vol. 60, 2016, pp. 238-2.

3 Bang, J. T., and A. Mitra, 'Civil War, Ethnicity, and the Migration of Skilled Labor', *Eastern Economic Journal*, vol. 39, no. 3, 2013, pp. 387-401.

4 Stark, O., and M. Jakubek 'Migration networks as a response to financial constraints: Onset, and endogenous dynamics', *Journal of Development Economics*, vol. 101, issue C, 2013, pp. 1-7.

5 Beine, M., and C. Parsons, 'Climatic Factors as Determinants of International Migration', *Scandinavian Journal of Economics*, vol. 117, no. 2, 2015, pp. 723-767; Black, R., et al., 'The effect of environmental change on human migration', *Global Environmental Change*, vol. 21, suppl. 1, 2011, pp. S3-S11.

important sources of information and resources for the physical journey;<sup>6</sup> and (ii) economic factors: migration is seen as being influenced by wage differentials across markets and countries, higher living standards and greater employment opportunities.<sup>7</sup>

With this paper, we would like to suggest an additional driver for migration: children's well-being. Since, overall, people and families generally migrate to improve their living standards, children's living standards in the country of origin and abroad should play a certain role in migration decisions. Limited educational opportunities and unsafe environments for children, for example, may significantly affect decisions to migrate. This may be particularly true for households with children, but it may also be an indirect influencing factor for anyone searching for better living conditions. In fact, respect for child rights and the quality of the educational system are important indicators of social and cultural development in a country. This seems quite straightforward, but to the best of our knowledge, no previous study has captured the potential correlation between children's well-being and migration decisions. Our research aims to add new insights to our understanding of migration drivers and, as such, has important implications for policymaking.

We exploit the Gallup World Poll (GWP), a repeated cross-sectional dataset spanning the period 2006 to 2016. This nationally representative survey is conducted in more than 150 countries around the world, making it a unique source of information about people's desires and plans to migrate (among both non-migrants and those who have already moved) and on children's conditions and well-being. Moreover, it aggregates information in indexes and, in particular, child-related concerns are aggregated in the Youth Development Index. We estimated the relationship between intent/plans to migrate and children's perceived living conditions using a logit model with robust standard errors and standardized coefficients. Moreover, we conducted heterogeneity analysis to understand whether the relationship varies across different subsamples: (i) among a restricted sample, the original sample excluding the top 5 refugee-sending countries; (ii) among a sample including only the top 20 refugee-sending countries; (iii) by income region; and (iv) across households with and without children. Finally, we conducted a robustness check to estimate our main models using individual survey questions instead of indexes.

Our analysis adds to the number of existing papers that have used the GWP to explore related issues. In particular, numerous studies analyse issues such as life satisfaction, subjective well-being and happiness and their main determinants.<sup>8</sup> Moreover, the GWP has been used to analyse the well-being of migrants. For example, Nikolova and Graham explore how migration affects the well-being of migrants from transition economies, finding that migration enhances subjective well-being and

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- 6 Beine, M., F. Docquier, and Ç. Özden, 'Diasporas', *Journal of Development Economics*, vol. 95, no. 1, 2011, pp. 30–41; Heering L., R. van der Erf and L. van Wissen, 'The role of family networks and migration culture in the continuation of Moroccan emigration: a gender perspective', *Journal of Ethnic and Migration Studies*, vol. 30, no. 2, 2007, pp. 323–337, doi: [10.1080/1369183042000200722](https://doi.org/10.1080/1369183042000200722); Mbaye, L. M., "'Barcelona or die": understanding illegal migration from Senegal', *IZA Journal of Migration*, vol. 3, no. 1, 2014, p. 21; Schapendonk, J., and D. van Moppes, 'Migration and Information: Images of Europe, migration encouraging factors and en route information sharing', Working Papers Migration and Development Series No 16, Radboud University, Nijmegen, September 2007.
- 7 Harris, J. R., and M. P. Todaro, 'Migration, Unemployment and Development: A Two-Sector Analysis', *The American Economic Review*, vol. 60, no. 1, 1970, pp. 126–142; Bauer, T. K., and K. F. Zimmermann, 'Assessment of Possible Migration Pressure and its Labour Market Impact Following EU Enlargement to Central and Eastern Europe', IZA Research Report No. 3, IZA – Institute of Labor Economics, Bonn, 1999; Massey, D. S., et al., 'Theories of International Migration: A Review and Appraisal', *Population and Development Review*, 1993, vol. 19, no. 3, pp. 431–466; Borjas, G. J. (ed.), *Issues in the Economics of Immigration*, University of Chicago Press, Chicago, 2008.
- 8 Helliwell, J. F., and S. Wang, 'The State of World Happiness', ch. 2 in *World Happiness Report*, edited by J. F. Helliwell, R. Layard and J. Sachs, The Earth Institute, Columbia University, New York, 2012, pp. 10–57; Boarini, R., et al., 'What Makes for a Better Life? The Determinants of Subjective Well-Being in OECD Countries – Evidence from the Gallup World Poll', OECD Statistics Working Paper 2012(3), Organisation for Economic Co-operation and Development Publishing, 2012; Diener, E., et al., 'Wealth and happiness across the world: material prosperity predicts life evaluation, whereas psychosocial prosperity predicts positive feeling', *Journal of Personality and Social Psychology*, vol. 99, no. 1, 2010, pp. 52–61; Tay, L., and E. Diener, 'Needs and subjective well-being around the world', *Journal of Personality and Social Psychology*, vol. 101, no. 2, 2011, p. 354–365.

satisfaction with personal freedom (164-186).<sup>9</sup> Esipova, Ray and Pugliese analyse the push and pull factors of individuals pre- and post-migration,<sup>10</sup> while Esipova, Ray and Srinivasan examine profiles of potential migrants.<sup>11</sup> Our work is unique in that we focus on children and, for the first time, we suggest child-related concerns as a possible migration driver. Moreover, we exploit the latest available dataset (updated to 2016) and are thus able to offer a more recent picture of the phenomenon.

This paper is structured as follows. First, we describe the dataset, the main variables and the methodology. Second, we explore the GWP through descriptive statistics: in particular, we report migration trends, outline the profiles of potential migrants – their age, gender, level of education, income level and marital status – and identify where they come from and where they intend to go. Subsequently, we assess whether child-related concerns are associated with migration intent or plans and, finally, we offer our conclusion.

## 2. DATASET AND METHODOLOGY

The GWP is a repeated cross-sectional dataset, which polls a sample representative of 98 per cent of the world's adult population (over 15 years of age)<sup>12</sup>. The annual survey, conducted in more than 150 countries since 2006, typically interviews 1,000 individuals per country per year. It is nationally representative and interviews are conducted face to face or by telephone (the latter weighted for coverage of land and mobile phones in each country). The questionnaire, which consists of a standard set of questions, i.e., a core questionnaire, is translated into all major languages and administered in all countries. Supplementary questions are asked in specific geographic regions.

Telephone interviews are used in countries where at least 80 per cent of the population has telephone coverage, or where telephone survey is the customary survey methodology (see the Country Dataset Details for information on each country<sup>13</sup>). In Central and Eastern Europe as well as in the developing world – including much of Latin America, the former Soviet Union countries, nearly all of Asia, and nearly all of the Middle East and Africa – an area frame design is used for face-to-face interviewing.

Its comprehensive and nationally representative nature makes the GWP a unique source of data that can provide global insights into migration and migrants' experiences, with a focus on the condition of children in a country and on youth presence within the family. In particular, it allows for the identification of trends, drivers and the status of migrants and migrant families at the global level and for the identification of potential child-related issues.

The GWP has been largely used by international organizations to investigate various issues, with GWP datasets used by: the Food and Agriculture Organization of the United Nations to study hunger; the World Bank to develop its research on financial inclusion; the Organisation for Economic Co-operation

9 Nikolova, M., and C. Graham, 'In transit: The well-being of migrants from transition and post-transition countries', *Journal of Economic Behavior & Organization*, vol. 112, issue C, 2015, pp. 164–186.

10 Esipova, N., J. Ray and A. Pugliese, 'Gallup World Poll: The Many Faces of Global Migration', IOM Migration Research Series, No. 43, International Organization for Migration, Geneva, 2011.

11 Esipova, N., J. Ray and R. Srinivasan, 'The world's potential migrants: Who they are, where they want to go, and why it matters', Gallup white paper, Gallup, 2011.

12 'Worldwide Research Methodology and Codebook'. *Gallup*. Available at: <[https://data-services.hosting.nyu.edu/wp-content/uploads/2017/10/World\\_Poll\\_Methodology\\_102717.pdf](https://data-services.hosting.nyu.edu/wp-content/uploads/2017/10/World_Poll_Methodology_102717.pdf)>, accessed 4 September 2018.

13 'Country Data Set Details'. *Gallup*. Available at: <<https://www.gallup.com/services/177797/country-data-set-details.aspx>>, accessed 4 September 2018.

and Development to build the Better Life Index; the International Labour Organization to investigate trends around women in the labour market; and the International Organization for Migration to investigate migration trends. Finally, the GWP dataset is also the core resource for the *World Happiness Report* and for much of the academic research on life satisfaction and happiness.<sup>14</sup>

## 2.1 Questions related to migration and children's presence

Although the GWP was not originally conceived of to collect data on migration issues, its core questionnaire contains interesting questions in this regard. In particular, we exploit two questions aimed at identifying potential migrants:

- **Migration intent:** 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? (1 Like to move to another country ; 2 Like to continue living in this country ; 3 Don't know; 4 refused)
- **Migration plans:** Are you planning to move PERMANENTLY to another country in the next 12 months, or not? (Asked only when respondents stated they would like to move to another country) (1 Yes; 2 No; 3 Don't know; 4 Refused)

In addition, the GWP includes other useful migration-related questions:

- To which country would you like to move? (Asked only when respondents stated they would like to move to another country)
- To which country are you planning to move in the next 12 months? (Asked only when respondents are planning to move to another country in the next 12 months)
- Have you done any preparation for this move? For example, applied for residency or a visa, purchased a ticket? (Asked only when respondents are planning to move in the next 12 or 24 months) (1 Yes; 2 No; 3 Don't know; 4 Refused)
- Do you have relatives or friends living in another country whom you can count on to help you when you need them? (1 Yes; 2 No; 3 Don't know; 4 Refused)
- Were you born in this country? (1 Born in this country; 2 Born in another country; 3 Don't know; 4 Refused)
- Did you move to this country within the last five years? (1 Yes; 2 No; 3 Don't know; 4 Refused)
- In which country were you born?
- Is the city or area where you live a good place or not a good place to live, for immigrants? (1 Good place; 2 Not a good place; 3 Don't know; 4 Refused)

Since the GWP interviews individuals aged 15 years and older, we are able to analyse migration phenomena of adult and youth directly. And as for children, we know whether the respondent lives in a household with children and her/his perception of child living standards. It is therefore possible to investigate to what extent child-related concerns are associated with decisions to migrate.

14 Helliwell, J.F., R. Layard, and J. Sachs (2018). *World Happiness Report 2018*, New York: Sustainable Development Solutions Network. Accessible at <<http://worldhappiness.report>>, accessed 3 September 2018.

In particular, the core questionnaire includes the following questions related to children:

- How many children under 15 years of age are now living in your household?
- Do you believe that children in [country] are treated with respect and dignity? (Yes/No)
- Do most children in [country] have the opportunity to learn and grow every day? (Yes/No)

The first question allows us to select households with children, while the others show the perceived living standards of children.

In addition to these questions, the Youth Development Index measures a community's focus on the welfare of its children using indicators such as respect for youth, satisfaction with the education system, and youth development. Higher scores indicate higher levels of satisfaction with child-related issues. In particular, the index aggregates responses to the following questions:

- In the city or area where you live, are you satisfied with the education system or the schools? (1 Satisfied; 2 Dissatisfied; 3 Don't Know; 4 Refused)
- Do you believe that children in [country] are treated with respect and dignity? (1 Yes; 2 No; 3 Don't know; 4 Refused)
- Do most children in [country] have the opportunity to learn and grow every day? (1 Yes; 2 No; 3 Don't know; 4 Refused)

## 2.2 Methodology

We estimated the relationship between migration intent/plans and concerns related to children using the GWP dataset spanning the period 2007 to 2016. We chose to delete the year 2006 because data were available for so few countries (and all of them in Europe and Asia). In addition, the variable that indicates migration plans was unavailable in 2016, and so the analysis on planned migration excludes this year. As a result, our sample comprised 692,181 observations from 164 countries.

Our dependent variables were two dummies: migration intent and migration plans.<sup>15</sup> Migration intent was coded 1 when respondents expressed an intent to migrate, and 0 otherwise. Migration plans was coded 1 when respondents had plans to migrate, and 0 otherwise. Given the nature of the dependent variables, we estimated two main logit models: one for migration intent and another for migration plans. Our independent variable of interest was the aforementioned *Youth Development Index*, which captures the community focus on children welfare: the higher the index score, the higher the level of satisfaction with child-related issues. Moreover, each regression used a common set of explicative variables that capture major migration drivers (*Community Basics Index*, *Law and Order Index*, *Corruption Index*, *National Institutions Index*, *Food and Shelter Index*, *Financial Life Index* and *Youth Development Index*)<sup>16</sup>; a variable measuring the network abroad (*diaspora*); and some demographic and socio-economic variables (*age*, *age squared*, *gender*, *education level*, *household income quintile*,<sup>17</sup>

15 The estimates related to migration plans could be subject to sample selection bias since people who are planning to migrate are a subsample of those who intend to migrate. In future studies, it may be useful to model this outcome using a selection model to first account for the decision around migration intent.

16 Indexes are provided by GWP.

17 We chose to use quintile dummies to allow for a non-linear relationship. In this way, we capture the difficulty of escaping from poverty and of jumping from one quintile to another. To make our estimates more robust, we also ran the main specification using income as a continuous variable. Previous results are mainly confirmed; estimates are available on request.

*residence (rural/urban), and marital status*<sup>18</sup>). Finally, we controlled *country* and *year fixed effects* and used robust standard errors. To make comparisons of coefficients possible, we used standardized coefficients. When using a logit model, as we did, full standardization is recommended, i.e., dependent and independent variables are standardized.<sup>19</sup>

We chose to use these indexes because they capture all major economic and non-economic migration drivers. In particular, *economic factors* are captured by the Financial Life Index, which measures the economic situation at the individual level and at the community level. Economic factors are also captured by the Food and Shelter Index, which assesses the extent to which respondents have experienced food deprivation. *Governance and public service factors* are captured by the Community Basics Index, National Institutions Index and Corruption Index. The first of these indexes captures satisfaction with public services and the health and education system, and life satisfaction within a community. The second condenses governance factors: it evaluates individual confidence in key institutions. The third index measures the perceived level of corruption in business and in government. Perceived levels of *conflict* are condensed in the Law and Order Index, which measures respondents' perceptions of security. Finally, the *diaspora* factor is measured by the presence of relatives or friends living abroad whom respondents indicate they could rely on for help. (For detailed information on each index, see *Annex A*.)

In addition to the main analysis, we conducted heterogeneity analysis by running the same specification on different subsamples, to see how estimates change: (i) we excluded the top 5 refugee sending countries from the sample because they are sensitive areas to migration and may cause bias;<sup>20</sup> (ii) we restricted the sample to only the top 20 refugee sending countries;<sup>21</sup> (iii) we split the sample according to income region; and (iv) we split the sample by households with and without children. Finally, we did a robustness check, 'unpacking' the indexes using single questions as regressors.<sup>22</sup>

Finally, we report the correlation matrix of dependent and independent variables and we check for multicollinearity among independent variables (see *Annex C*, Table 10, 11 and 12). In particular, both the Variance Inflation Factor (VIF)<sup>23</sup> and the condition number<sup>24</sup> indicate that we are not in presence of multicollinearity bias (they are smaller than 10).

Despite these additional sensitivity analyses, possible limitations still persist. In particular, given the structure of our dataset, we were unable to capture unobservable individual heterogeneity, and the omitted variable problem may affect our estimates. As a consequence, our results can only indicate a correlation between the dependent and independent variables, rather than a causal relationship.

18 We consider married those individuals part of a couple or a domestic partnership. We did so in order to capture the obstacle that having a spouse or partner may represent in migration decisions. For example, emotional ties may discourage people from migrate and, in the case in which they decide to move together, it would be more expensive

19 Winship, C., and R. D. Mare, 'Regression Models with Ordinal Variables', *American Sociological Review*, vol. 49, no. 4, 1984, pp. 512–525.

20 The top five refugee countries as defined by the World Bank: Afghanistan, Somalia, South Sudan, Sudan, Syrian Arab Republic.

21 The top 20 refugee countries as defined by the World Bank: Afghanistan, Central African Republic, China, Colombia, Democratic Republic of the Congo, Eritrea (missing in our dataset), Ethiopia, Iraq, Mali, Myanmar, Nigeria, Pakistan, Somalia, South Sudan, Sri Lanka, Sudan, Syrian Arab Republic, Ukraine, Viet Nam, West Bank and Gaza.

We considered the Islamic Republic of Iran in place of Eritrea, for which data were unavailable.

22 Since indexes usually comprise the results of related variables, we control for a possible collinearity problem among them (see *Annex C*, Tables 11 and 12).

23 It quantifies the extent of correlation between one predictor and the other predictors in a model. Rule of thumb: A VIF greater than 10 merit further investigation, it may detect multicollinearity problems.

24 Index of global instability of the regression coefficients: a large condition number, 10 or more, is an indication of instability.

In keeping with the general consensus on such matters, we computed our descriptive statistics using survey sample weights. Since there is less consensus on whether weights should be routinely used in regressions, we performed a sensitivity analysis, i.e., we compared coefficients of interest from the analysis with and without weights. It emerged that weighting did not give qualitatively different results, and thus we estimated our models without them.

Table 1 summarizes which information is available for each year of the GWP. Annex A provides more information about the variables present in the dataset.

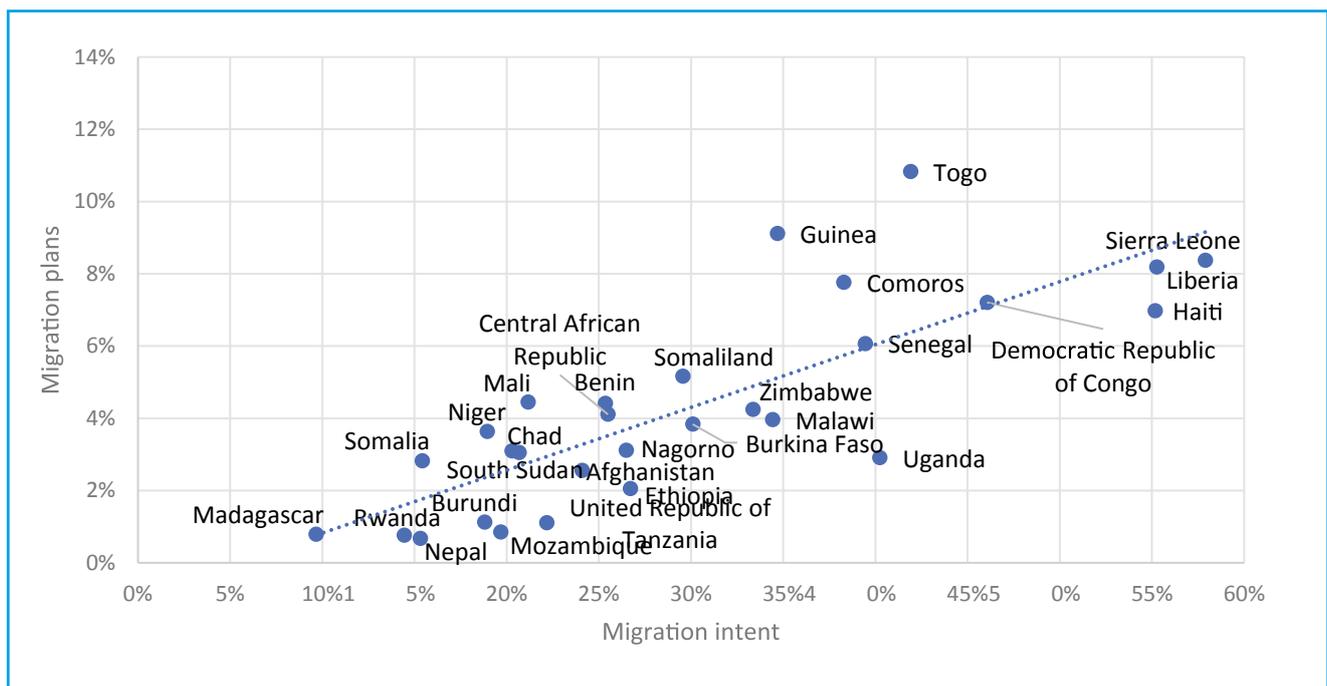
**Table 1. Information available in each Gallup World Poll survey wave**

Questions	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Migration intent	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Migration plans				✓	✓	✓	✓	✓	✓	
Relatives abroad	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Born in this country	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Immigrated in the last 5 years			✓	✓	✓	✓	✓	✓	✓	✓
Country of birth			✓	✓	✓	✓	✓	✓	✓	✓
Good place for immigrants	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Child-related questions	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Employment variables				✓	✓	✓	✓	✓	✓	✓
Corruption variables	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Satisfaction variables	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Confidence variables	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Freedom variables	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Household income	✓	✓	✓	✓	✓	✓	✓	✓		✓
Enough money to buy food	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Indexes of interest (used in the analysis)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Environmental reasons to migrate				✓						
Family moved abroad	✓	✓	✓	✓	✓					
Remittances			✓	✓	✓	✓	✓	✓	✓	✓
Questions on the Syrian Arab Republic							✓		✓	

### 3. DESCRIPTIVE STATISTICS

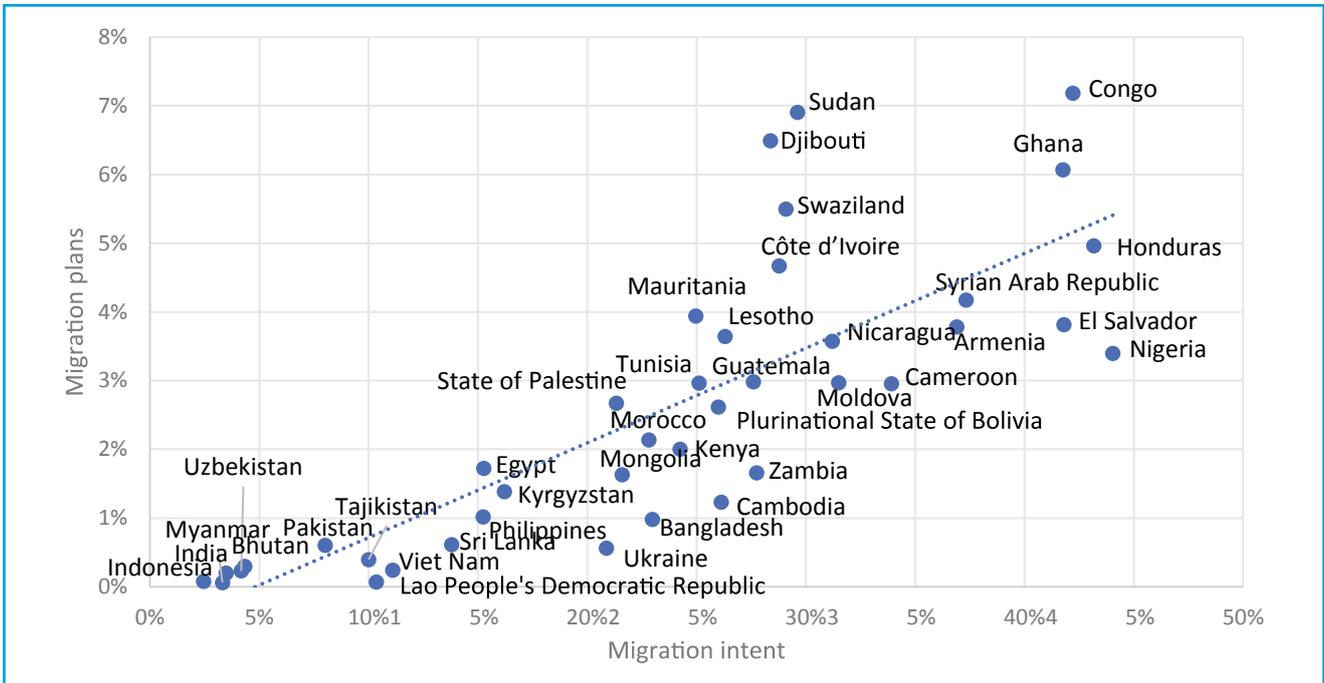
This section explores migration intent and plans at the global level. The following figures illustrate the relationship between these variables in different income regions.<sup>25</sup> The scatterplots display the percentage of individuals with an intent to migrate on the horizontal axis and the percentage of individuals with migration plans on the vertical axis (see *Figures 1 to 4*). They suggest a possible positive relationship between the two variables. Countries with a higher than average proportion of individuals with migration intent also display a higher proportion of individuals with migration plans. This is true across all income regions. In addition, the percentage of individuals who would like to move permanently to another country decreases as the average income level in the country increases. For example, in low-income countries, the percentage of individuals with migration intent ranges from 10 per cent in Madagascar to 58 per cent in Sierra Leone. In high-income countries, this range narrows from 6.5 per cent in Australia to 36 per cent in Puerto Rico (USA). Higher income regions also display a lower percentage of individuals planning to migrate.

**Figure 1. Migration intent and plans in low-income countries**

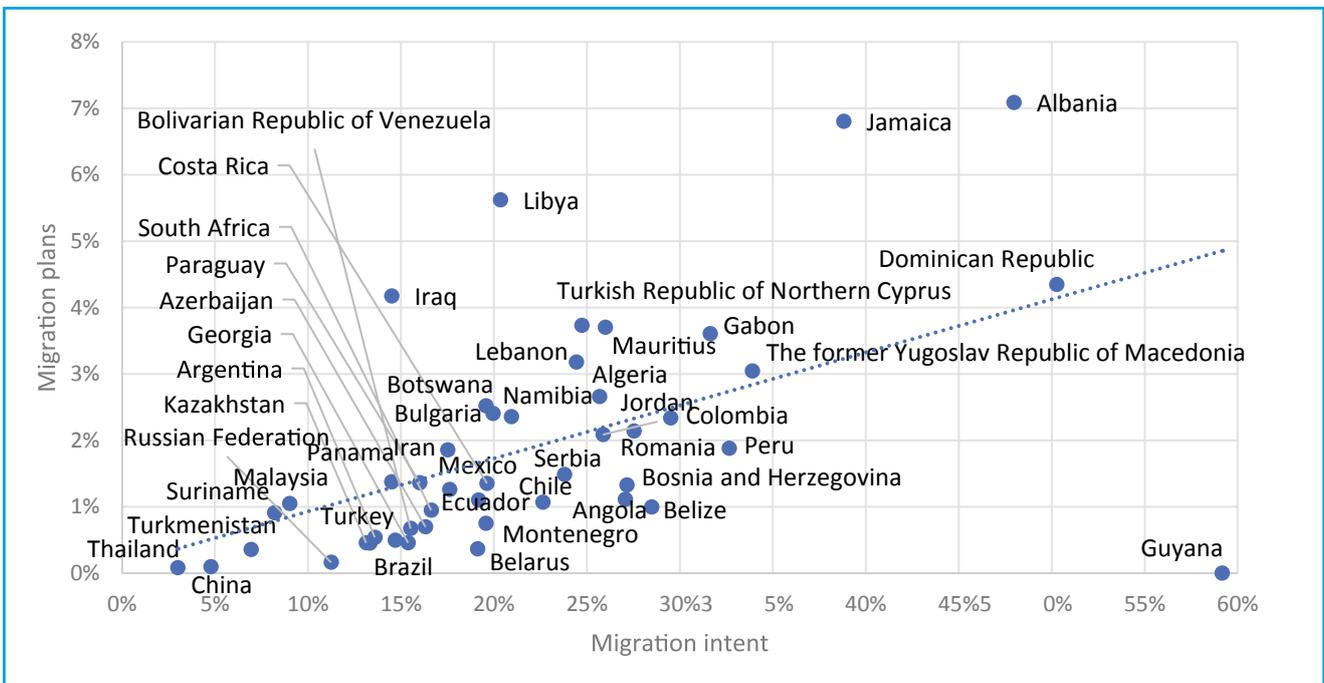


<sup>25</sup> Income regions are based on the World Bank's regional and income classification of economies.

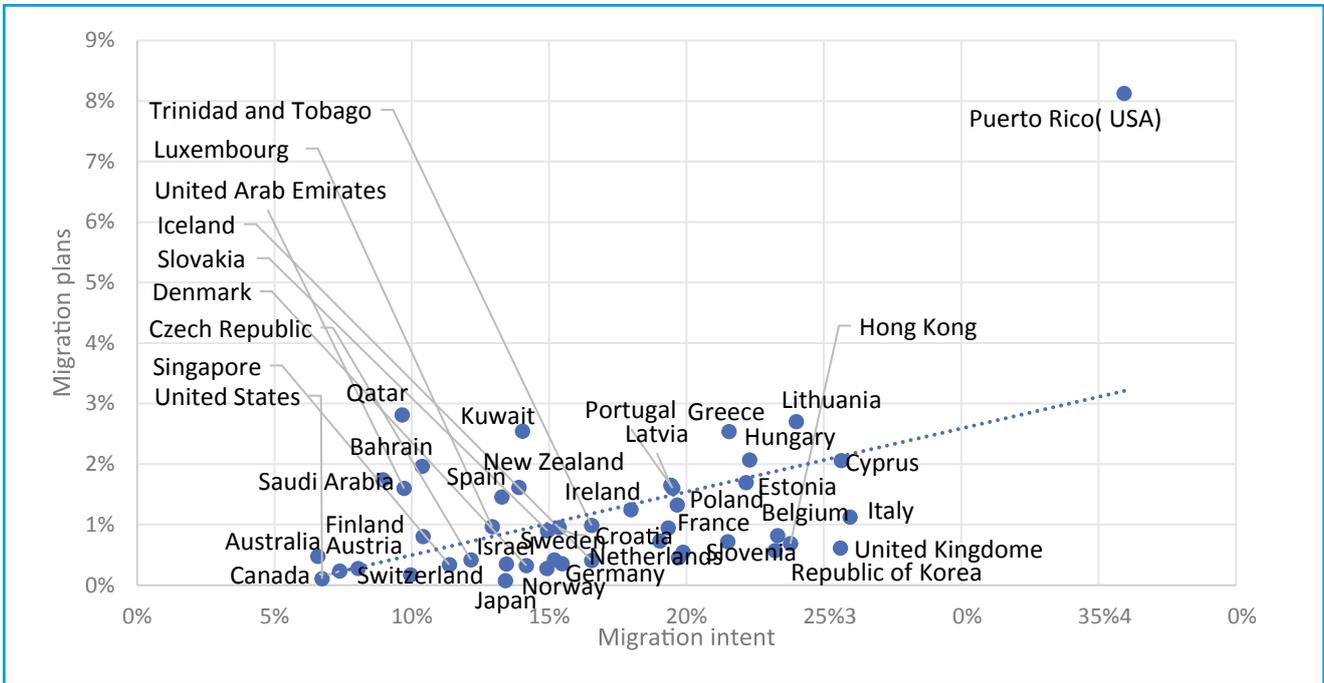
**Figure 2. Migration intent and plans in lower-middle-income countries**



**Figure 3. Migration intent and plans in upper-middle-income countries**



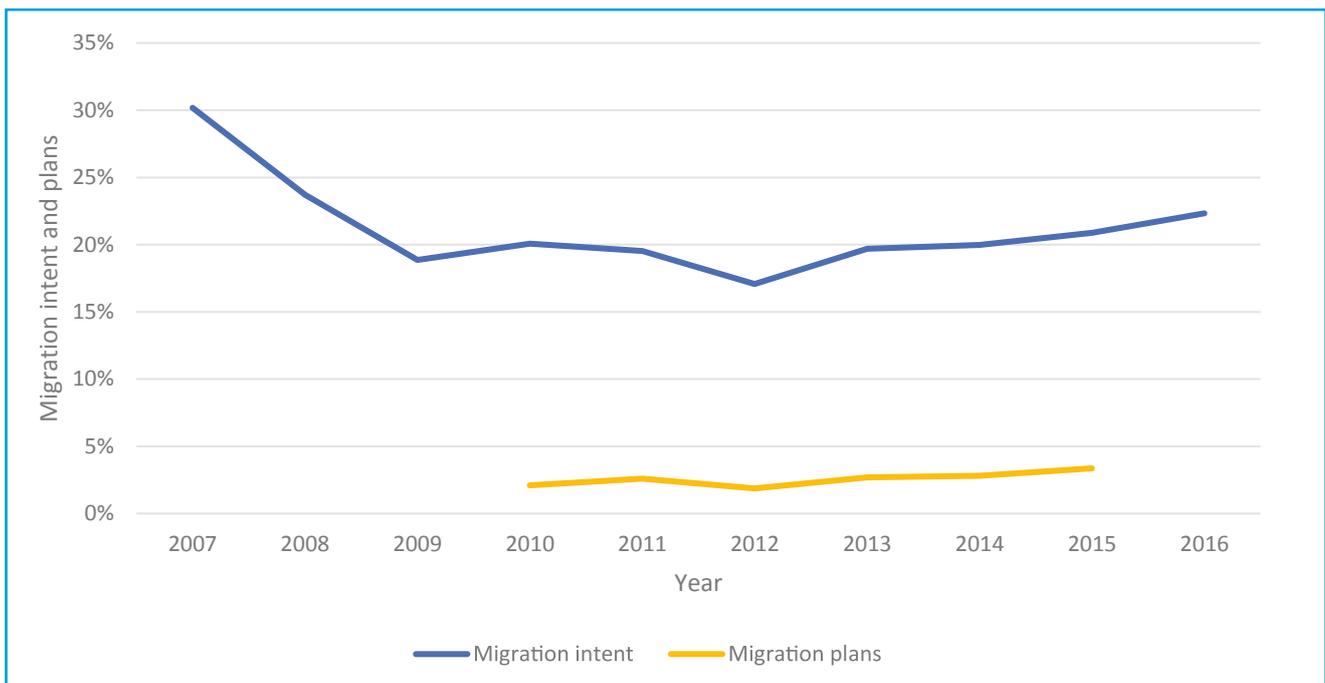
**Figure 4. Migration intent and plans in high-income countries**



### 3.1 Trends

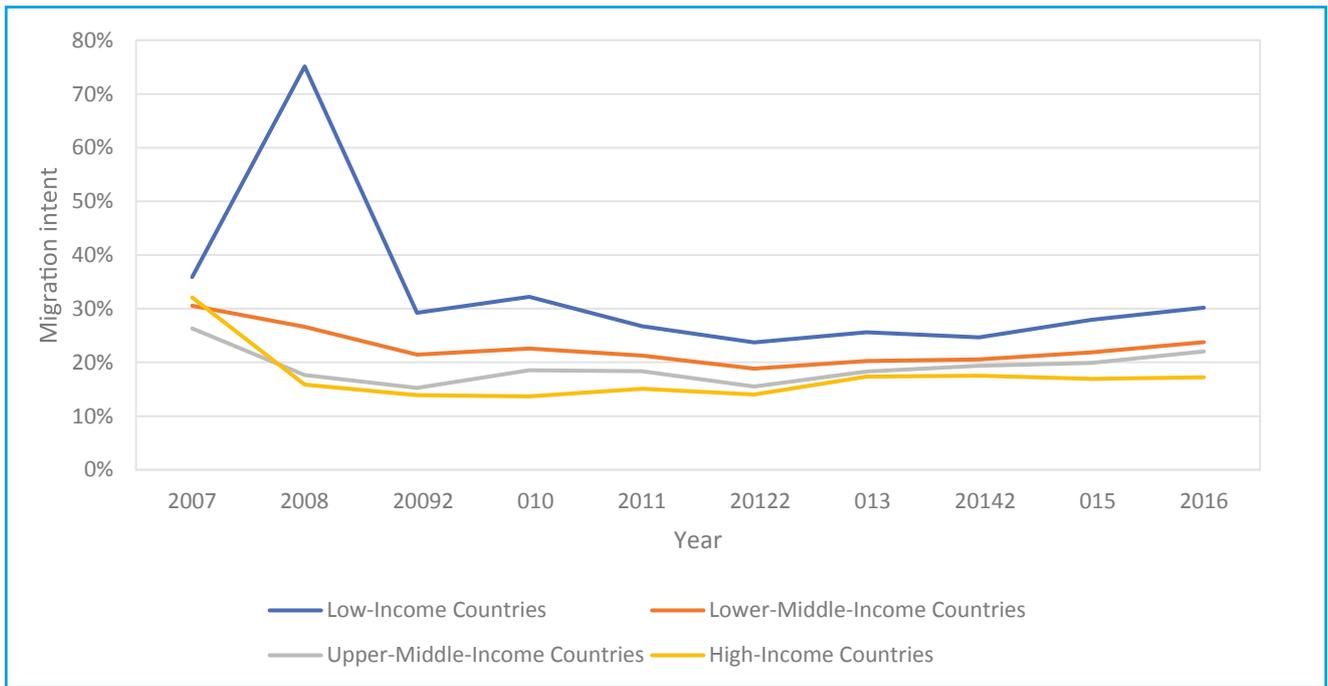
Figure 5 shows trends in both intent and plans to migrate by survey year. Estimates refer to the whole sample. Data on migration intent span the period 2007 to 2016, while those on migration plans span 2010 to 2015. About 30 per cent of the world population in 2007 indicated an intent to migrate. The proportion of individuals with migration intent worldwide fell significantly during the period of the global economic crisis, dropping to 18 per cent in 2009 and to 17 per cent in 2012. Between 2013 and 2015, migration intent was stable at 20 per cent of the world population, and in 2016 this proportion rose to 22 per cent. In regard to plans to migrate, we note that the proportion of individuals planning to move to another country is much lower than the proportion of those intending to move. The trend has remained quite stable over time, with the proportion of the global population with migration plans increasing slightly from 2 per cent in 2010 to 3.4 per cent in 2015. This is understandable, since solid plans to move to another country imply much more commitment and many more obstacles to be overcome (economic constraints, visa problems, etc.) than the simple intention to move.

**Figure 5. Migration intent and plans over time**

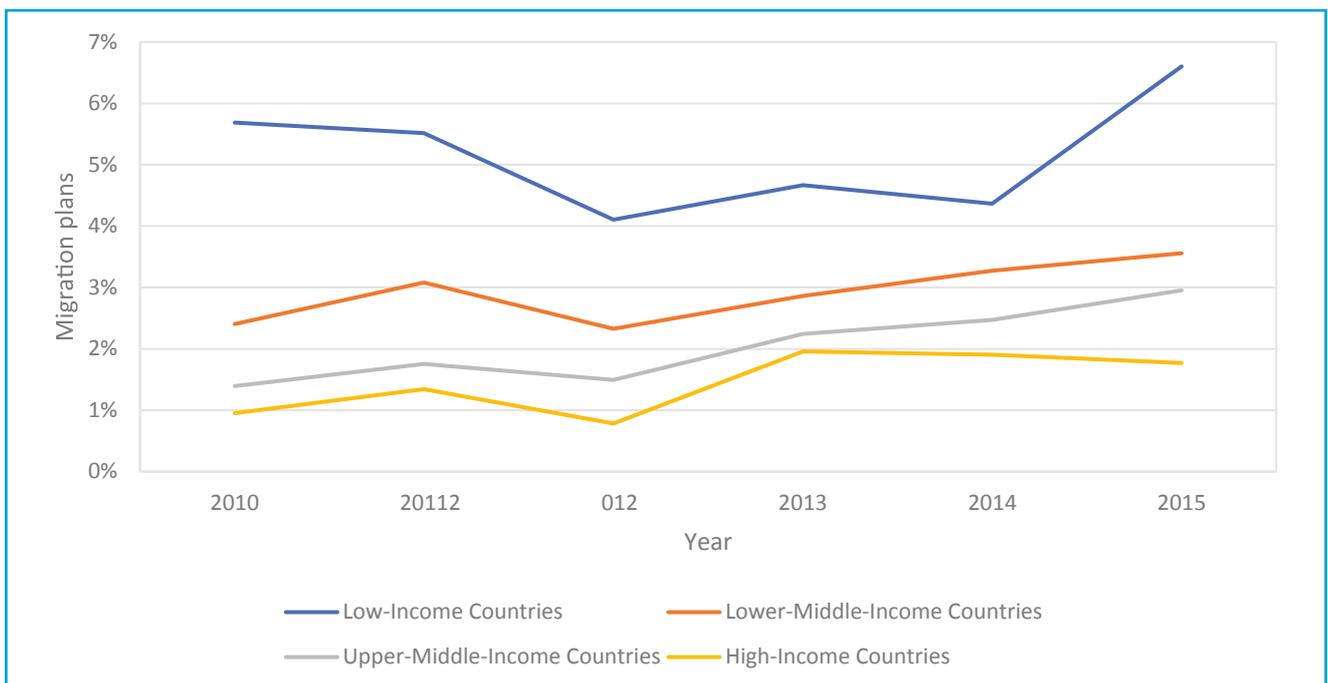


Figures 6 and 7 show trends in migration intent and plans by income region: low-income regions exhibit the highest percentage of individuals intending to move, and planning to move to another country. Overall, from 2007 to 2016, migration intent decreased over time and across all income regions.

**Figure 6. Migration intent over time by income region**



**Figure 7. Migration plans over time by income region**



In particular, migration intent dropped in 2008 in high- and upper-middle-income countries, while it also dropped in low- and lower-middle-income countries in 2009. The year 2012 is characterized by a slight decrease in migration intent across all regions. From 2014 to 2016, migration intent increased in low-, lower-middle- and upper-middle-income countries. It is interesting to note that the intention to migrate reached a peak in 2008 in low-income countries – up to 75 per cent of the national population – but, just one year later, dropped tremendously to 30 per cent. It is also worth noting that in 2007, high-income countries had the same proportion of individuals exhibiting migration intent as lower-middle-income countries (30 per cent of the national population). Only one year later, however, the intention to migrate among individuals in high-income countries fell considerably, positioning such countries last in the ranking among the analyzed income areas.

Trends in migration plans increased over time across all regions, replicating trends in migration intent. But, in 2012, migration plans dropped across all regions, and especially among low- and lower-middle-income countries. Low-income countries collectively displayed – for every year of the survey – the highest percentage of individuals planning to move, but this income region also exhibited the highest variance between individual countries. The proportion of individuals with migration plans in low-income countries ranges from 5.6 per cent in 2010 to 6.6 per cent in 2015, with a sharp drop to 4 per cent in 2012. Other income regions exhibited lower percentages and more stable trends. High-income countries display the lowest proportion of individuals planning to move, with percentages ranging from 1 per cent in 2010 to 1.7 per cent in 2015, with a peak of 1.9 per cent in 2013.

Annex B reports trends for the five largest countries of origin in the present refugee crises, i.e., the Afghanistan, Somalia, South Sudan, Sudan and the Syrian Arab Republic. It illustrates how upward trends in both migration intent and plans rapidly increased in the Syrian Arab Republic: in 2009, 21.3 per cent of people wanted to migrate; in 2013, the proportion with migration intent had risen to 60 per cent – an increase of 181 per cent over four years. Two per cent of the Syrian population were planning to migrate in 2010; by 2012, this had risen to 8.2 per cent of the population, representing an increase of 310 per cent in just two years. In Afghanistan, migration intent decreased from 34 per cent of the population in 2008 to 18 per cent in 2012. In 2012, migration intent began to increase, reaching 30 per cent in 2015, before dropping to 22 per cent in 2016. Concerning migration planning, the data for Afghanistan show a drop from 2011 to 2012, with the proportion of individuals planning to move falling from 5.3 per cent to 1.1 per cent year on year. Following 2011, the proportion of people in Afghanistan with migration plans starts to grow, reaching a peak of 8.1 per cent in 2015.

Data on Somalia, South Sudan and the Sudan show no clearly identifiable trends over time. We can, however, note that from 2014 to 2016 the proportion of people with migration intent and plans increased in South Sudan and decreased in Somalia.

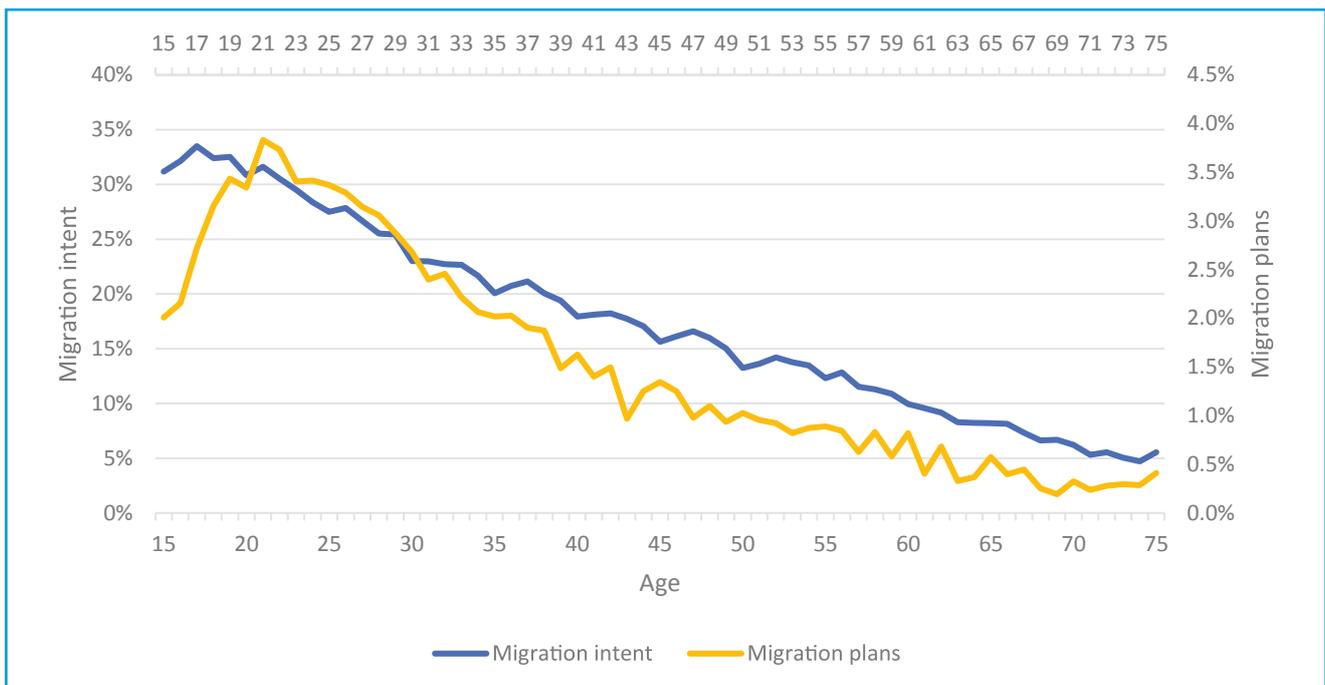
### 3.2 Who are the potential migrants?

This section seeks to capture the main demographic and socio-economic characteristics of potential migrants. Sample respondents are grouped by age, gender, marital status, education level, income level and residence (rural/urban). Percentages are shown accordingly.

#### 3.2.1 Age composition

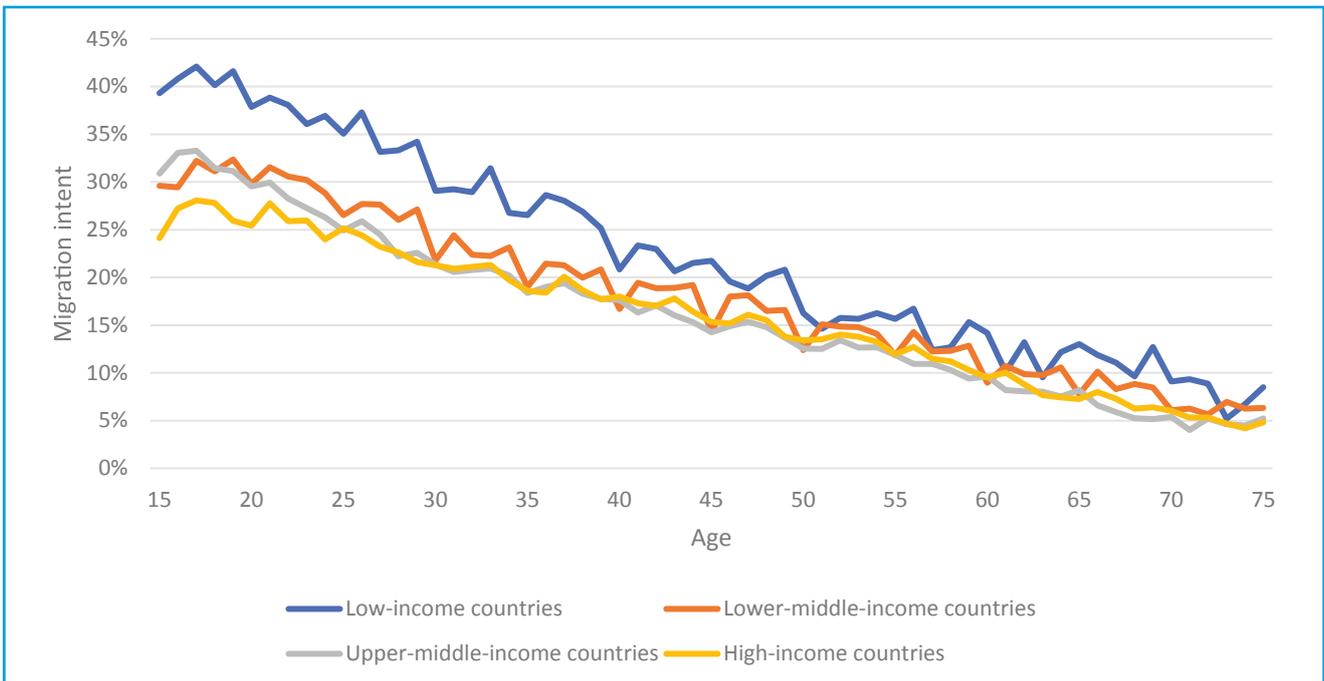
Figure 8 reports descriptive statistics by age for those who declared their intention to migrate (left vertical axis) and for those who are planning to migrate (right vertical axis). The graph clearly shows that most potential migrants are younger individuals. Migration intent peaks among 17-year-olds (33 per cent declare their intention to migrate), while migration planning peaks among 21-year-olds (with 4 per cent declaring that they have a migration plan). The previous age groups are turning points: both migration intent and plans tend to increase among individuals younger than age 17 and 21 respectively and decrease among older individuals.

Figure 8. Migration intent and plans by age in years

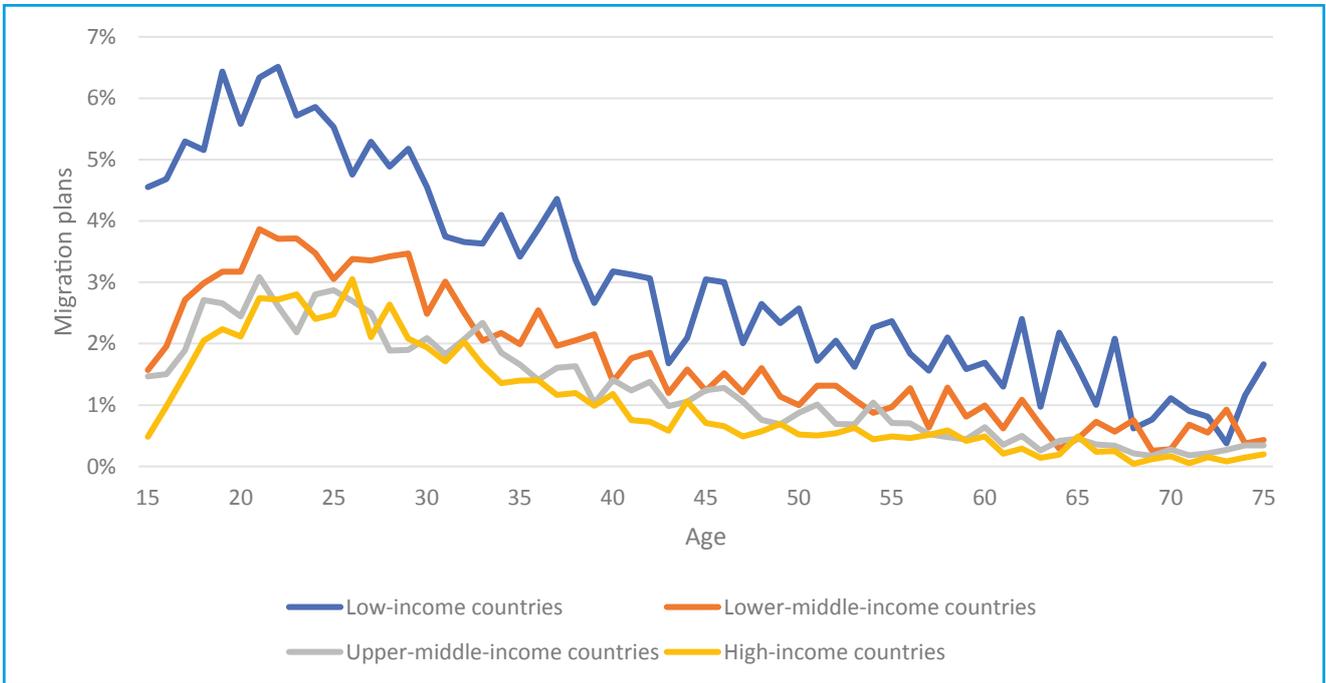


Figures 9 and 10 show how migration intent and plans vary according to both age composition and income region. The graphs confirm what has been shown previously: younger individuals would like to migrate, and plan to do so, more than older individuals. This is true across all regions, although these trends are stronger in low-income countries. Moreover, the line representing the relationship between age and migration intent/plans in low-income countries is steeper than in other income regions. In other words, as individuals get older the proportion with migration intent and plans decreases faster in low-income countries than in other regions.

**Figure 9. Migration intent by age in years and by income region**



**Figure 10. Migration plans by age in years and by income region**



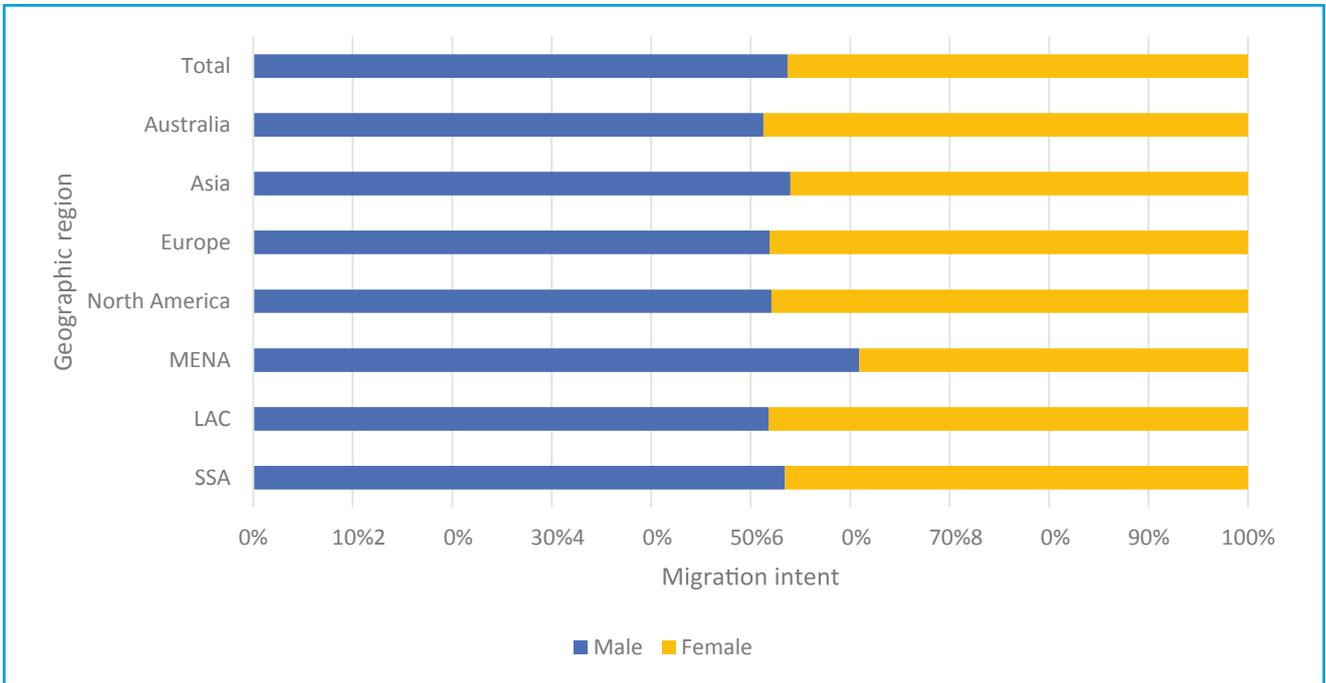
### 3.2.2. Gender composition

Although we mainly use the World Bank regional classification, which reflects countries grouped by income level, gender composition in migration intent and plans is instead reported here according to geographic region.<sup>26</sup> We did this because this option provides more interesting results than classification by income region. On average, 58 per cent of individuals worldwide who plan to migrate are male, and this percentage is stable across all income regions. Migration intent is slightly more balanced in terms of gender composition: on average, 53 per cent of individuals who want to migrate are male. This is confirmed across all income regions. Looking at plans to migrate, we find that most individuals with migration plans in high-income countries are male (61 per cent), while the picture is slightly more gender-balanced in low-income countries (men represent 55 per cent of all individuals with migration plans). (For estimates of migration intent/plans by income region, see *Annex B, Figures 38 and 39.*)

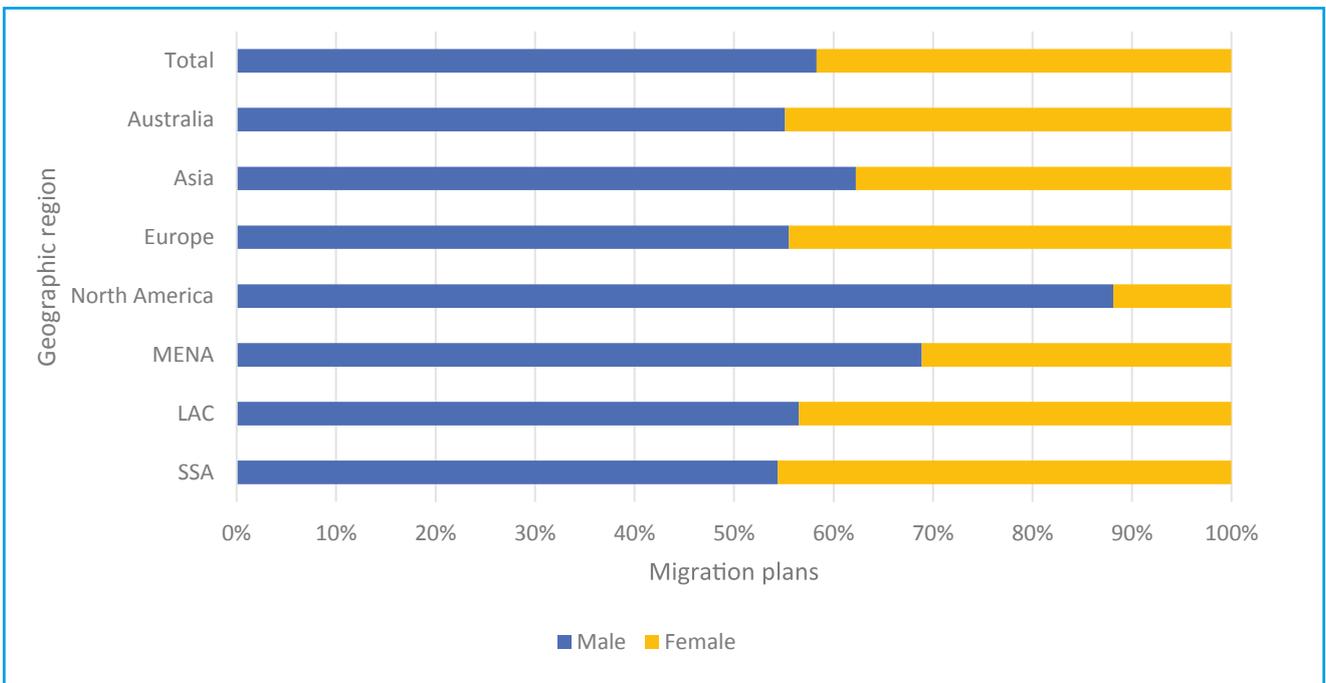
Figures 11 and 12 show that men represent the majority of individuals planning to migrate or with migration intent across all geographic regions. Figure 11 shows that this is especially true for the Middle East and North Africa (MENA) region, where men account for 61 per cent of migration intent. In Asia and sub-Saharan Africa (SSA), male dominance slightly decreases, to 54 per cent and 53 per cent respectively. Australia, Europe, North America, and Latin America and the Caribbean (LAC) exhibit the most gender-balanced statistics: in these geographic regions, women and men are almost equally represented among individuals with migration intent. When solely considering migration plans, however, the overall picture changes strongly in favour of men. In particular, men account for most migration planning in North America (88 per cent), the MENA region (69 per cent) and Asia (62 per cent). (The case of North America is an outlier, with a heavily skewed male dominance of migration plans.) Europe, Australia, SSA and LAC exhibit the most gender-balanced results in terms of planning: men represent 54 per cent, 55 per cent, 55 per cent and 56 per cent respectively of individuals with migration plans.

<sup>26</sup> The geographic regions used were: sub-Saharan Africa (SSA), Middle East and North Africa (MENA), Latin America and the Caribbean (LAC), North America (Canada and the United States of America), Europe, Asia (excluding MENA countries) and Australia.

**Figure 11. Migration intent by gender and geographic region**



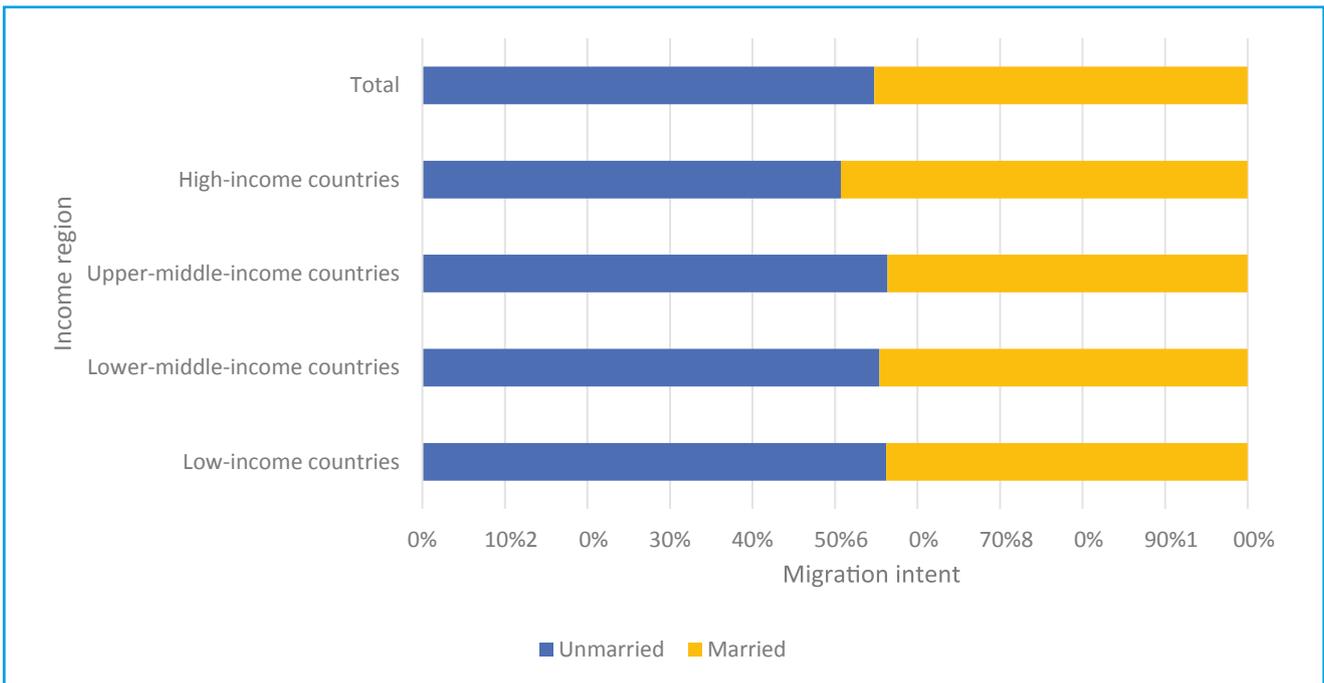
**Figure 12. Migration plans by gender and geographic region**



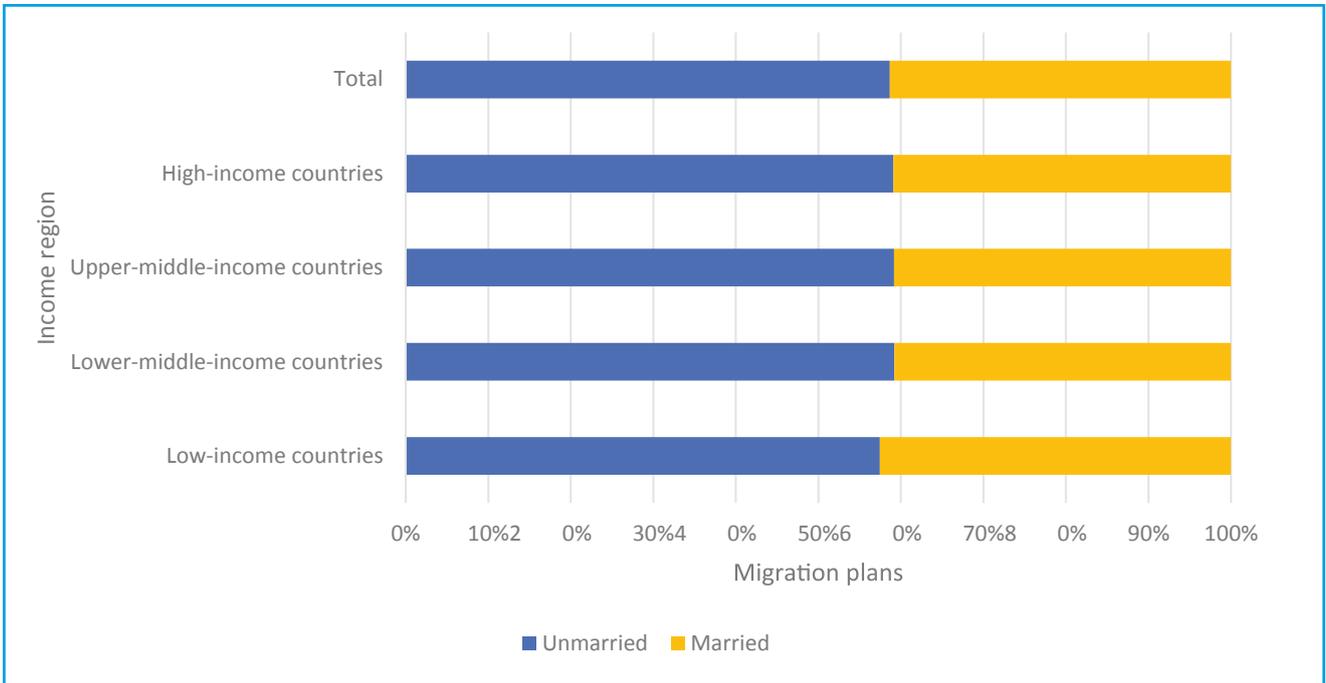
**3.3.3. Marital status**

The majority of individuals with migration intent (56 per cent) and migration plans (58 per cent) are unmarried. Looking at migration intent, only high-income countries show a more balanced picture: in such countries, married and unmarried people are almost equally represented among individuals with migration intent. Among those effectively planning to migrate, however, unmarried individuals dominate in all income regions.

**Figure 13. Migration intent by marital status and income region**



**Figure 14. Migration plans by marital status and income region**



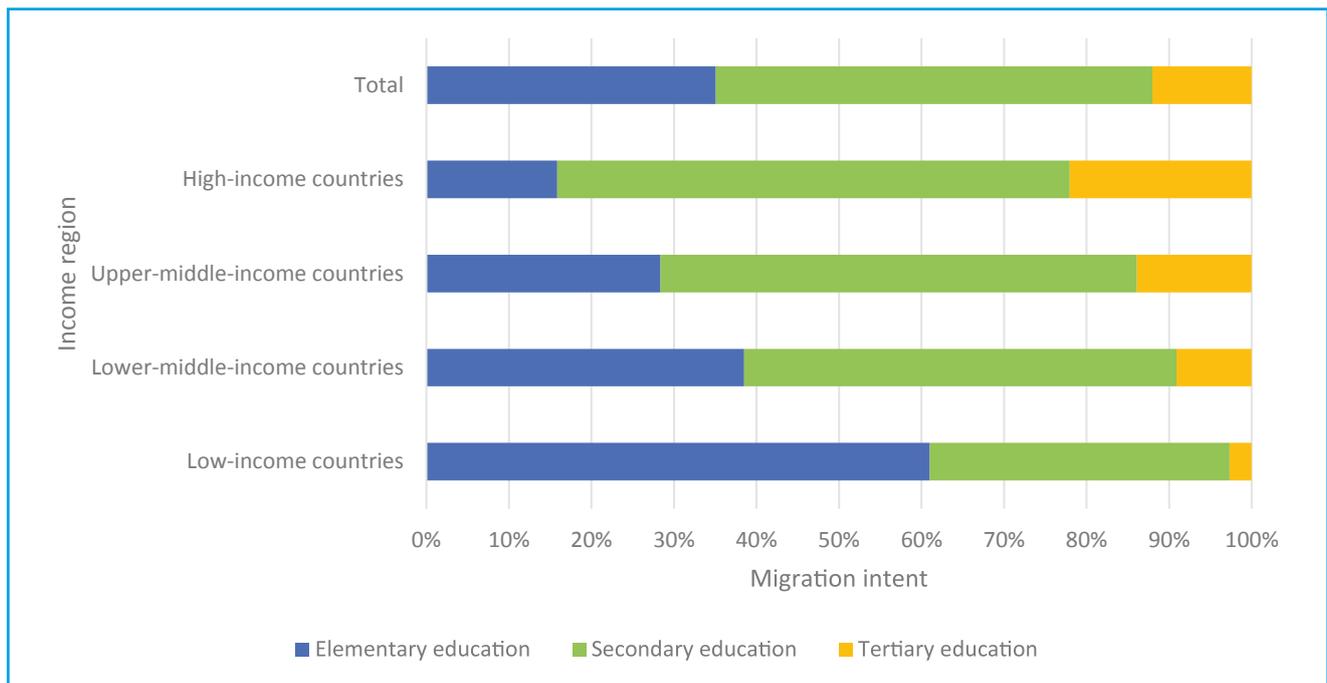
### 3.2.4 Education level

Figures 15 and 16 report education levels for individuals in the different income regions who intend to migrate and who are planning to migrate. The GWP harmonizes education variables across all countries, enabling the comparison of cross-cultural equivalence. All education-related descriptions can be placed in one of three categories:

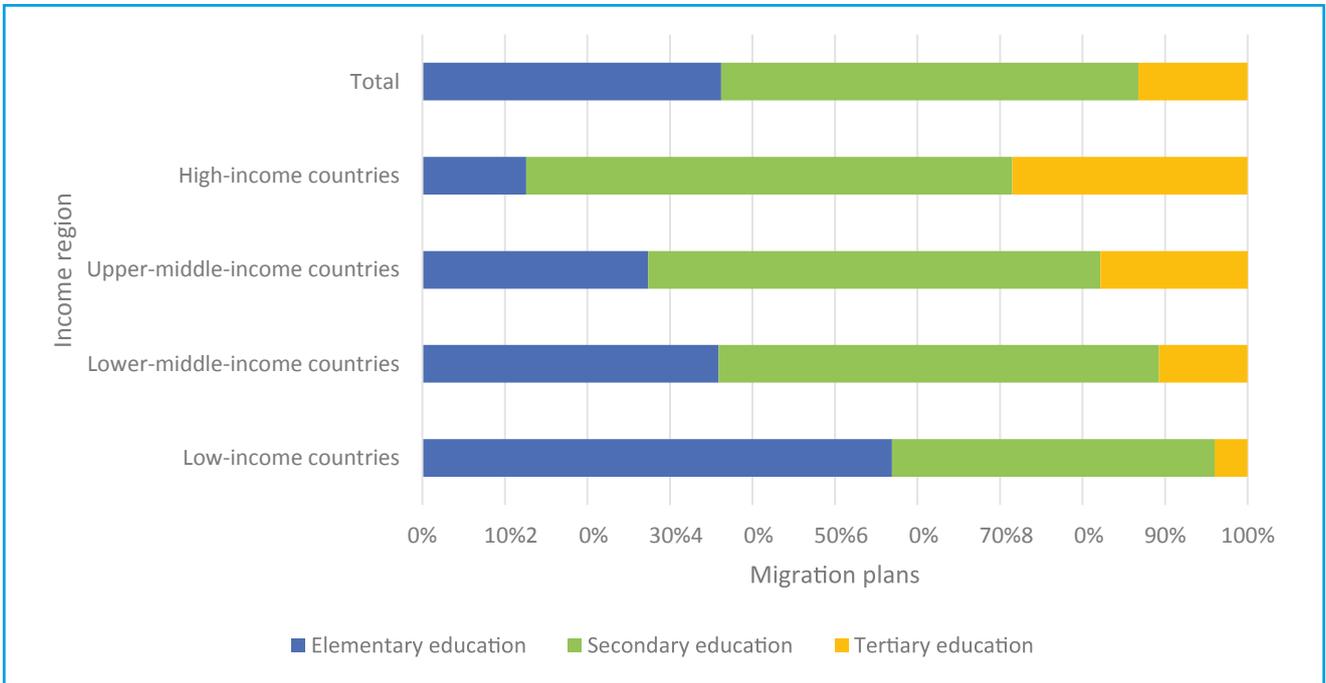
- Elementary: has completed no education beyond elementary education (up to eight years of basic education)
- Secondary: has completed some secondary education and up to three years of tertiary education (9 to 15 years of education)
- Tertiary: has completed four years of education beyond secondary school and/or holds a four-year college degree

Individuals with a secondary school education typically represent 53 per cent of those with migration intent and 50 per cent of those with migration plans across the income regions. The education level of people with migration intent or plans increases as we move from low- to high-income countries. For example, in low-income countries, almost 61 per cent of individuals with migration intent and 57 per cent of those with migration plans have only completed elementary education. In high-income countries, the proportion of individuals intending/planning to migrate with only an elementary education drops to 16 per cent and 12 per cent respectively; instead, individuals with tertiary education represent a larger group with migration intent (22 per cent) and migration plans (28 per cent). This may be due in part to the lower average education levels in low-income countries compared to high-income countries.

**Figure 15. Migration intent by education level and income region**



**Figure 16. Migration plans by education level and income region**

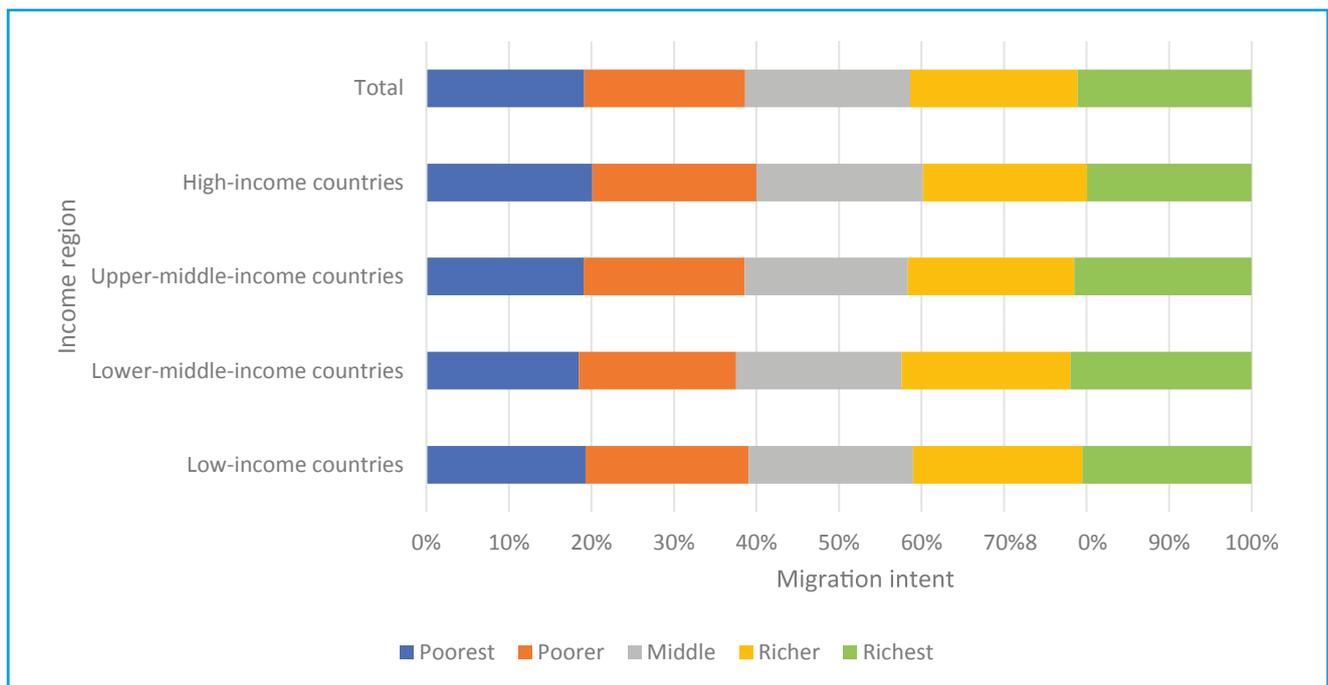


**3.2.5 Income composition**

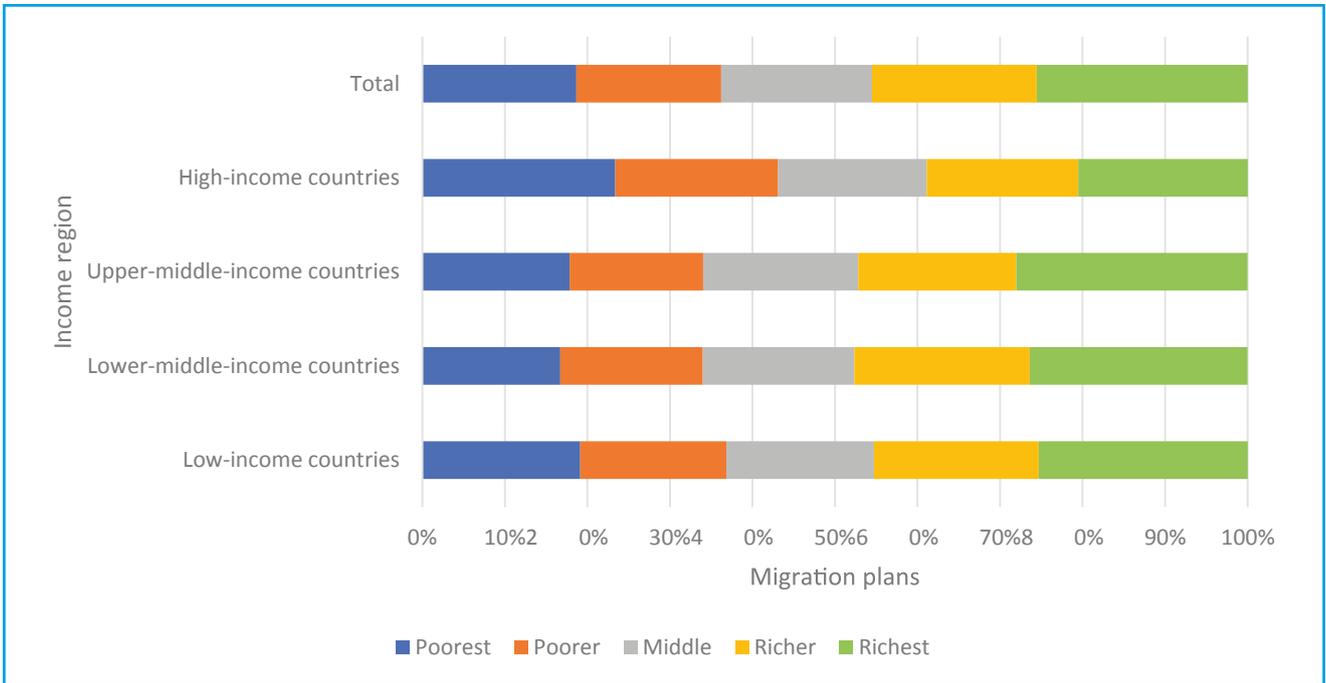
Figures 17 and 18 report, by income region, the household income composition of individuals who want to move abroad and who are planning to move abroad. Estimates of household income are expressed in international dollars, created using the World Bank purchasing power parity conversion factor for private consumption, to enable comparison of income estimates across all countries. We use household income quintiles within countries; this approach provides a measure of wealth that is relative to the respondents in that particular country.

On average, all income quintiles are almost equally represented among individuals with migration intent and plans, with a small imbalance in favour of those with higher incomes. This is especially true when we look at migration plans: the richest individuals represent 25 per cent of all those with a migration plans. In particular, this imbalance in favour of the richest stands out in all income regions except for among high-income countries, where the poorest individuals represent 23 per cent of individuals who are planning to move. This may suggest a positive relationship between income and plans to move abroad – especially in poorer countries – which becomes weaker in high-income countries. This may be explained by the fact that: (i) migrating abroad is an expensive undertaking; and (ii) people living in non-high-income countries face higher requirements, which are also connected to disposable income, to secure a visa than those who live in high-income countries.

**Figure 17. Migration intent by income quintile and income region**



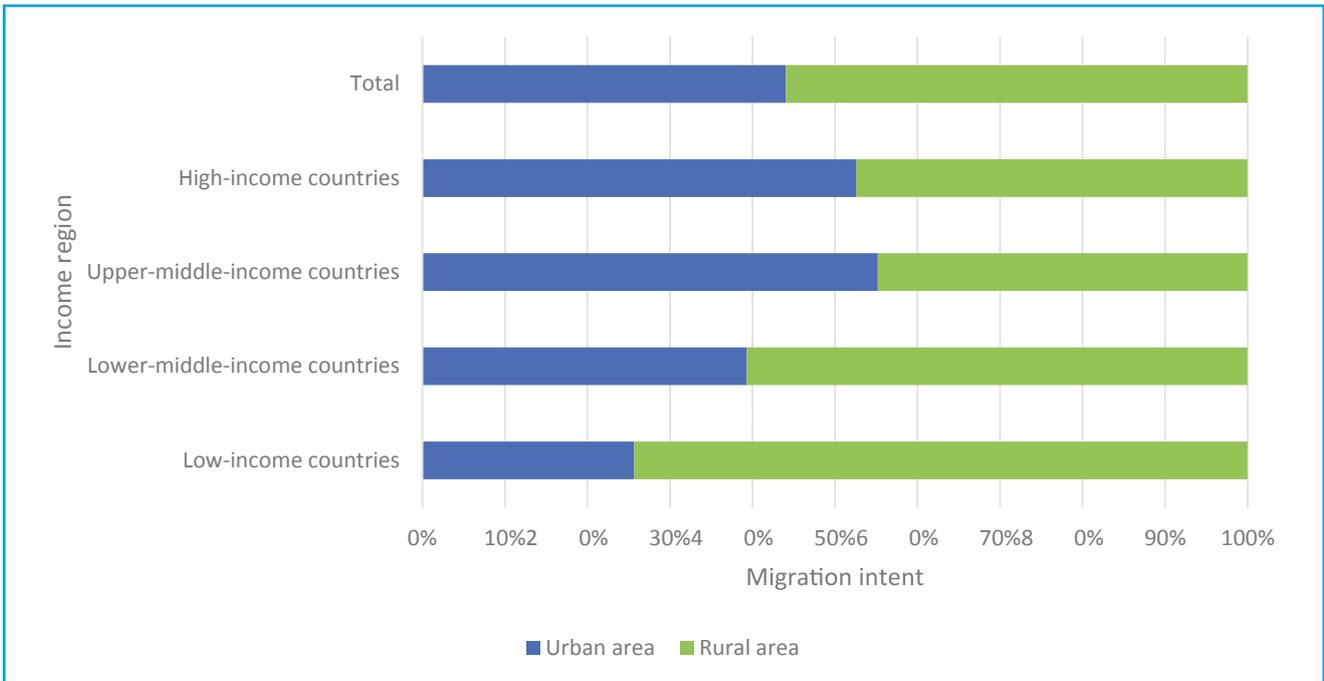
**Figure 18. Migration plans by income quintile and income region**



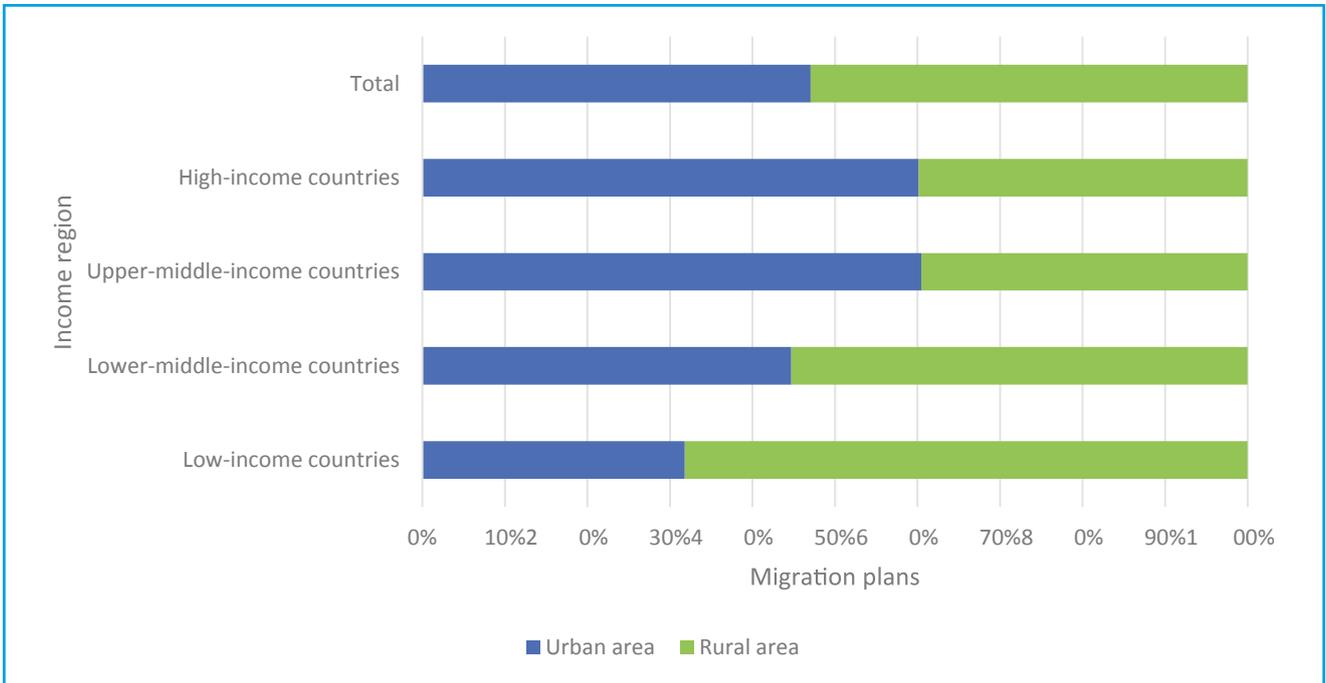
**3.2.6 Rural v urban areas**

At the global level, 56 per cent of individuals intending to move abroad live in rural areas, while 53 per cent of those with migration plans reside in rural areas (see *Figures 19 and 20*). Urban-dwelling individuals who intend to move abroad are more typical in high- and upper-middle-income countries, while rural-based individuals with migration intent are found mainly in low- and lower-middle-income countries. In regard to migration intent, individuals living in urban areas dominate the picture in upper-middle-income countries (55 per cent) and in high-income countries (52 per cent). When we look at migration plans, urban dwellers become more prominent, representing 60 per cent of all planning in both high- and upper-middle-income countries. Rural-based individuals in low- and lower-middle-income countries constitute 74 per cent and 61 per cent respectively of all those who intend to move abroad. This group is less well represented in regard to migration plans, with these percentages falling to 68 per cent and 52 per cent respectively.

**Figure 19. Migration intent by urban/rural area and income region**



**Figure 20. Migration plans by urban/rural area and income region**

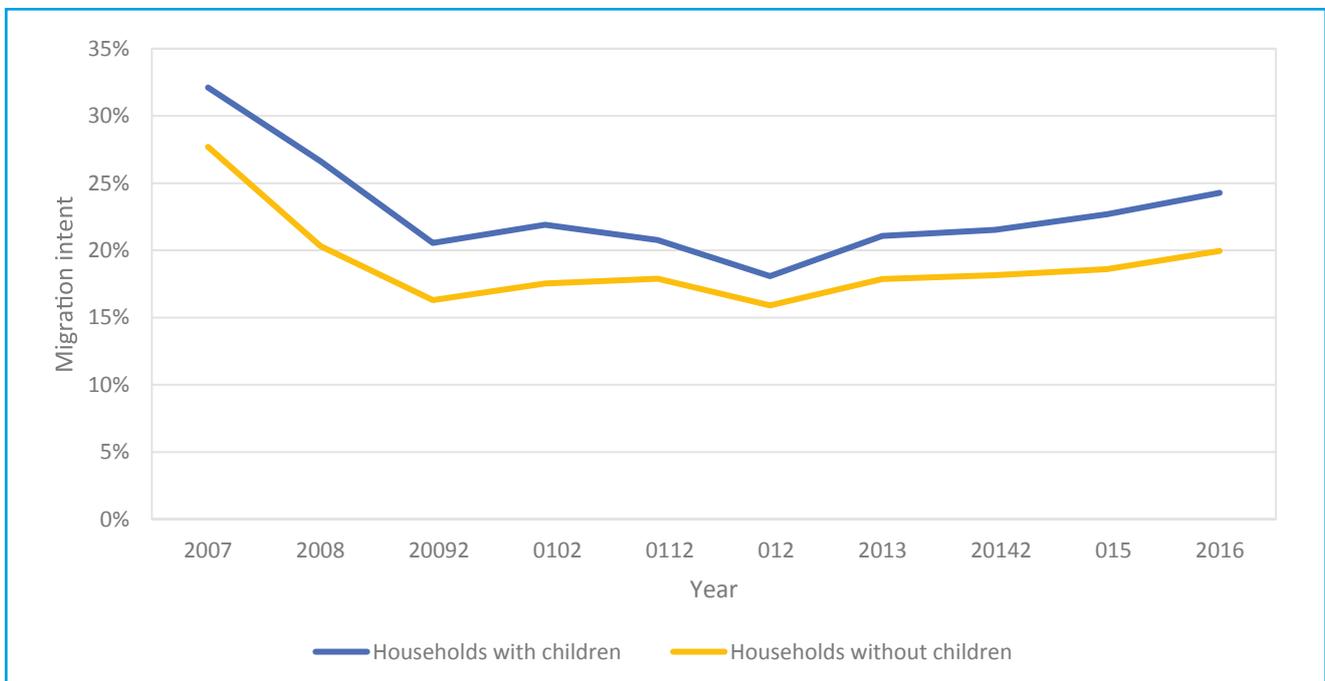


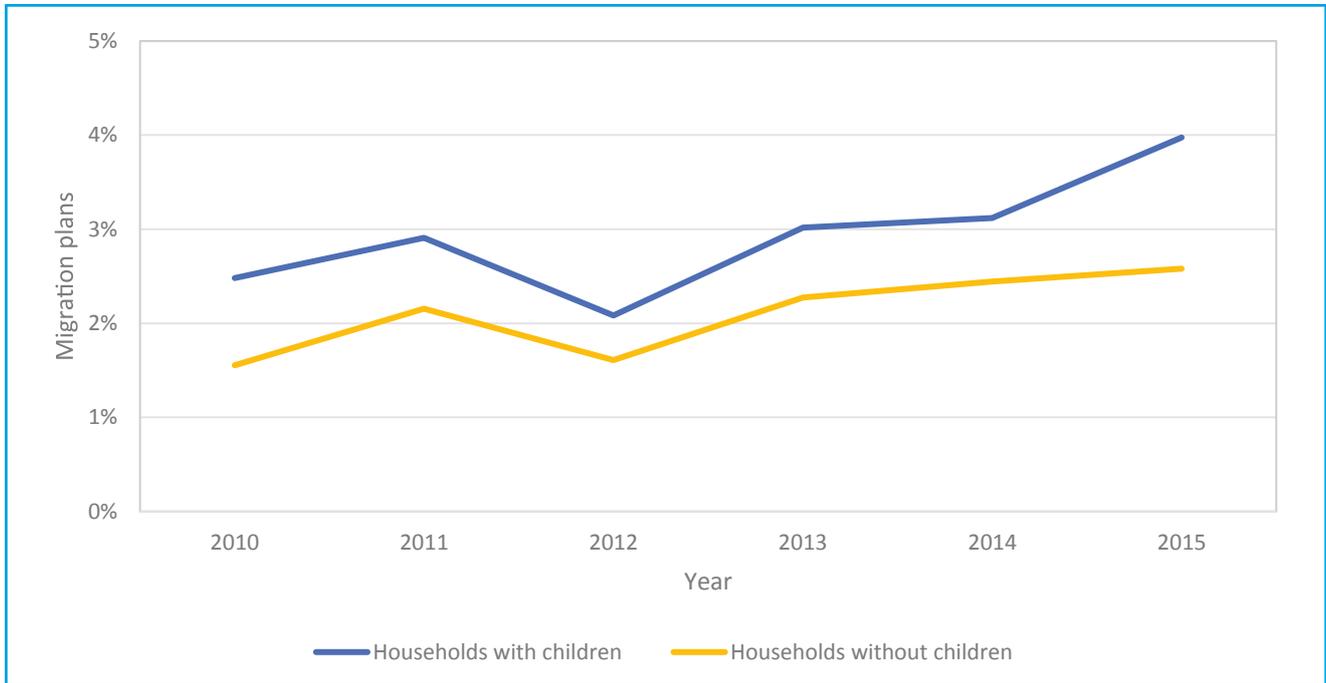
### 3.3 Migration and the presence of children

The GWP survey does not specify what type of relationship survey respondents have with any children living in the household, i.e., whether the individual is the mother, father, brother, sister or some other relation to the child or children. It is therefore not possible to infer any direct relationship between having biological children and migration intent. For this reason, we use the term ‘children’s presence’ to refer to households with children under 15 years of age, as it does not specify the relationship between respondent and child. Analysing whether child-related variables have more effect on this subsample can provide a robustness check on our hypothesis, i.e., child-related variables as migration drivers.

Figures 21 and 22 respectively describe migration intent and plans over time for individuals living in households with and without children. It is interesting to see that the proportion of individuals who intend to move and are planning to do so grows over time among those living in households with children. In 2008, the difference in migration intent between individuals living in households with children and those without was 6.3 percentage points. This gap narrowed significantly in 2012, to 2.2 percentage points. Following 2012, the gap grew again, to reach 4.3 percentage points in 2016. In regard to migration plans, the difference between the two curves is almost 1 percentage point on average, dropping to 0.5 of a percentage point in 2012 and increasing to 1.4 percentage points in 2015. The overall trends reflect those described in section 1.1.

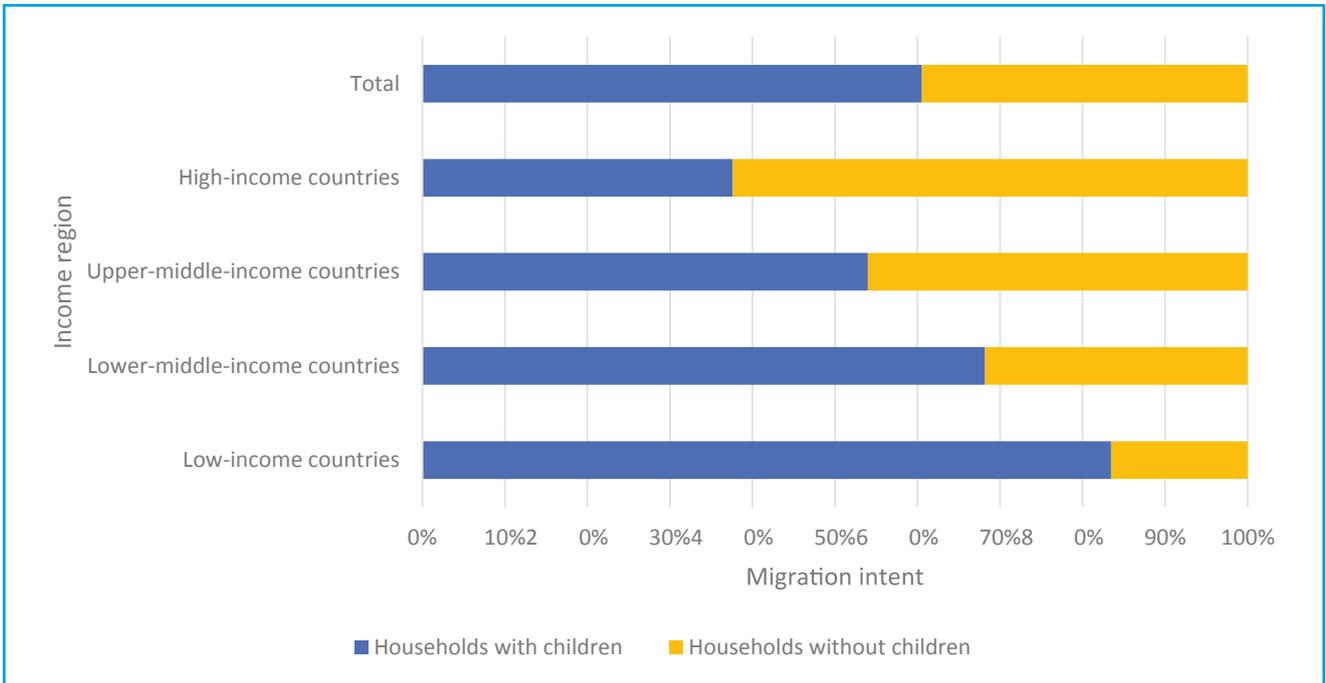
**Figure 21. Migration intent and children’s presence over time**



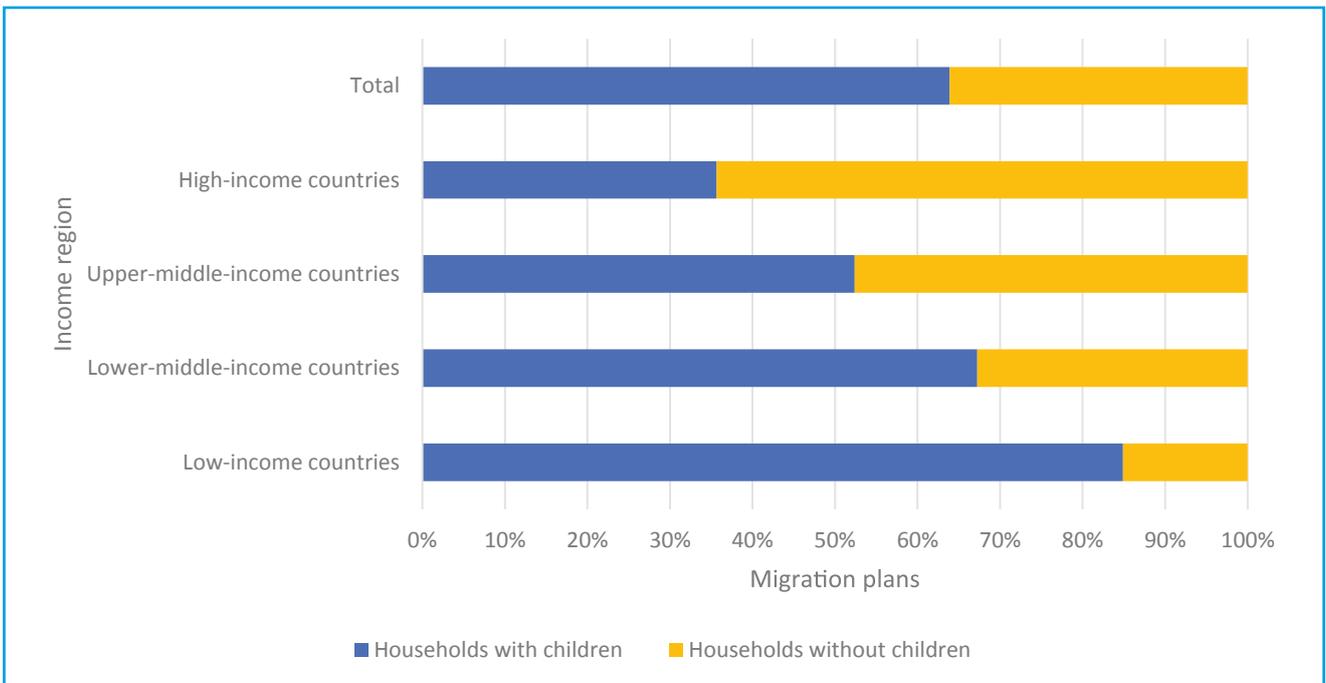
**Figure 22. Migration plans and children's presence over time**

The following figures show migration intent/plans for individuals living in households with and without children in different income regions (see *Figures 23 and 24*). As previously stated, individuals living in households with children intend and plan to migrate at comparatively higher rates than those in households without children. When looking at income regions, this is especially true for low- and lower-middle-income countries. In the former, individuals living in households with children represent 83 per cent and 85 per cent of all those with migration intent and plans respectively. In the latter, this group represents a slightly smaller proportion (68 per cent in either case) of people with migration intent and plans. In high-income countries, the opposite is true: individuals living in households without children represent 62 per cent and 64 per cent of people with migration intent and plans respectively. In upper-middle-income countries, the presence of children seems not to make a difference to migration intent and plans: in fact, individuals living in households with children represent just a little over half (almost 53 per cent in either case) of all those with migration intent and plans. This trend may be due in part to the higher fertility rate in low- and lower-middle-income countries than in richer countries, which causes the sample to have a higher proportion of households with children in lower-middle-income countries.

**Figure 23. Migration intent by children’s presence and income region**



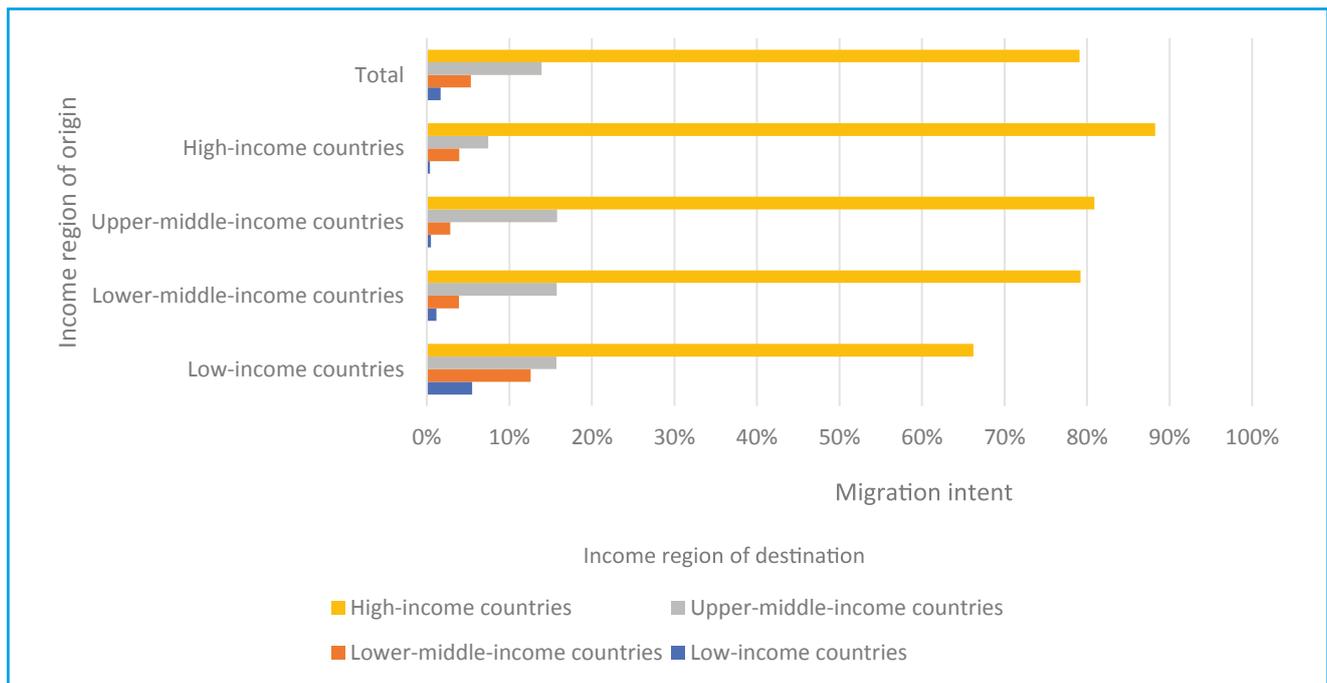
**Figure 24. Migration plans by children’s presence and income region**



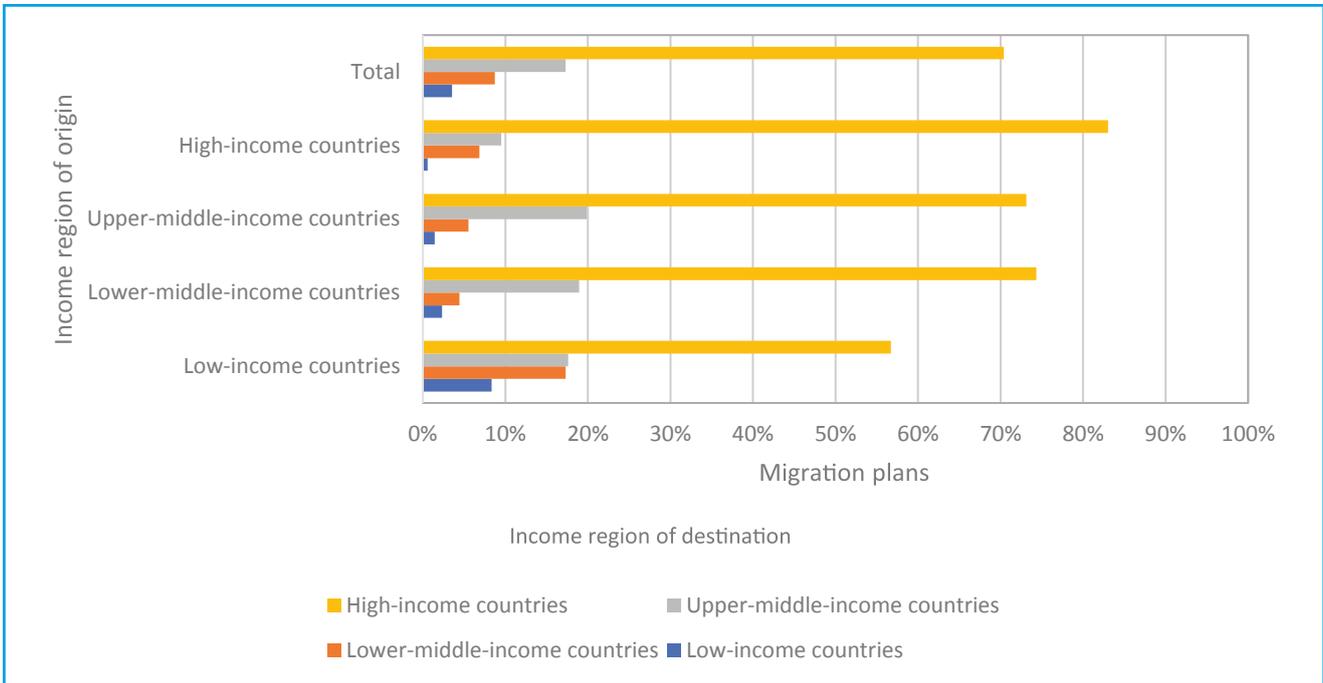
### 3.4 Migration flows

Figures 25 and 26 show those income regions where respondents currently live and those to which they intend to go or are planning to move. The graphs show that people typically want/plan to move to countries with a higher income than the country of origin. In particular, 79 per cent of people with migration intent worldwide would like to move to high-income countries, while 70 per cent of all those with migration plans globally aim to move to high-income countries. About 14 per cent of the people intend to move to an upper-middle-income country and 17 per cent are planning to do so. People who intend to move to lower-middle-income countries represent 5 per cent of the sample, and those who are planning to make such a move 9 per cent. Finally, while only 1.7 per cent of people intend to migrate to low-income countries, 3.5 per cent of those with migration plans have a low-income country as their destination. These figures suggest that people dream especially of moving to high-income countries. But when people plan to migrate, the proportion who move to lower-income countries is greater than the proportion who intend to do so. This may reflect the multiple constraints and obstacles faced by people coming from lower-income countries when attempting to enter high-income countries.

**Figure 25. Migration flows by income region: Where would you like to go?**

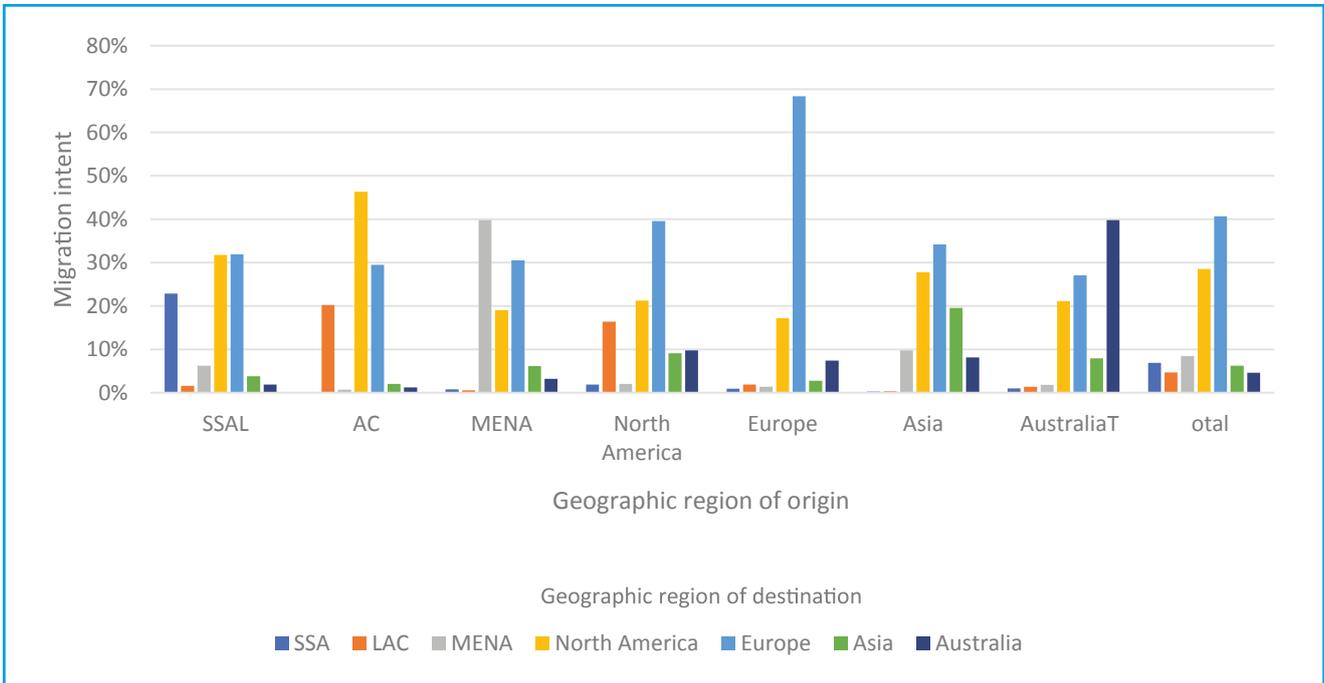


**Figure 26. Migration flows by income region: Where are you planning to go?**

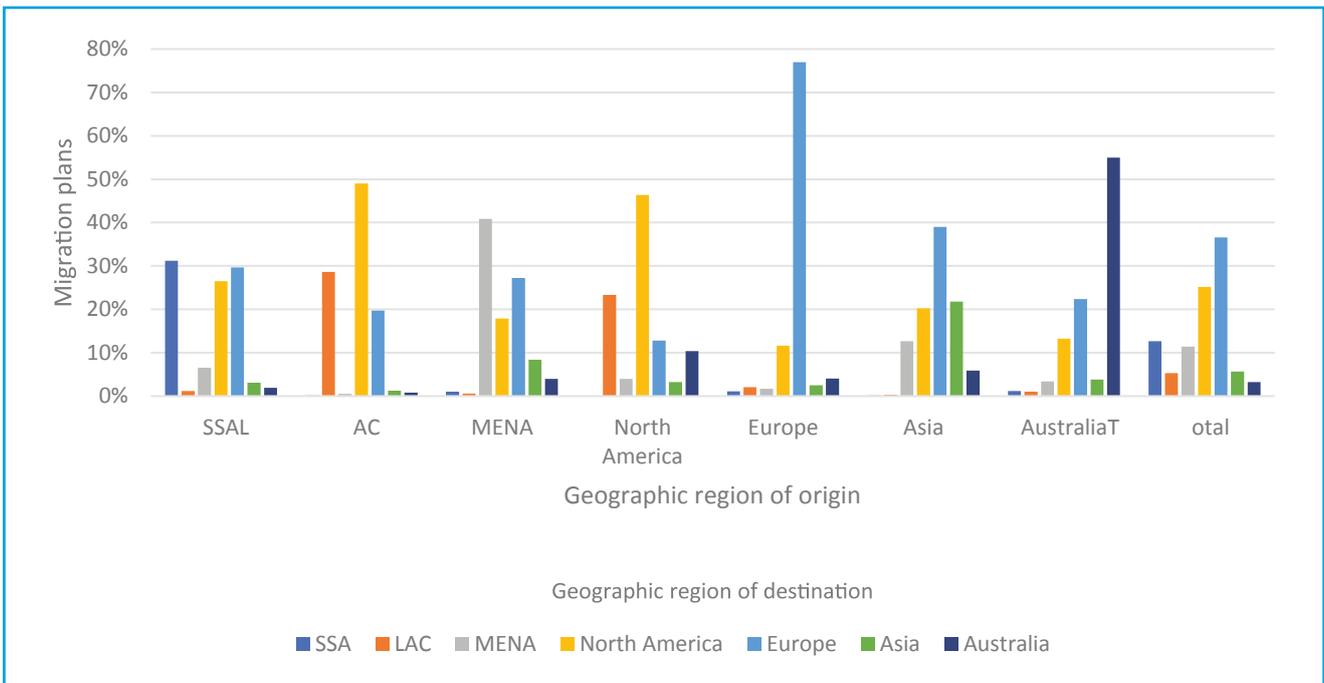


In Figures 27 and 28, we can see the geographic regions where respondents currently live and those to which they want/plan to move. Most people dream of and plan to move to Europe, while North America is in second place. This is true for both migration intent and plans. The MENA region comes in third place in terms of where people would most like to move; in practice, however, SSA countries represent the third most popular option among people who are planning to migrate. Looking at specific geographic regions, we note that individuals in each (except Europe and North America) display a strong preference to migrate to a country within the same geographic region. This may reflect the fact that countries within the same geographic region are nearer to the country of origin and so moving to such destinations may involve less bureaucracy and fewer visa requirements. In particular, people living in the MENA region and Australia prefer to move within the same geographic region rather than migrate to Europe or North America. People in LAC countries mostly intend to move to North America and Europe, yet they plan to move to North America and to other LAC countries. People living in SSA countries dream of Europe and North America, but plan to move to Europe and to other SSA countries. People from Asia intend to move above all to Europe and North America; their planning focuses on moving to Europe and Asia.

**Figure 27. Migration flows by geographic region: Where would you like to go?**



**Figure 28. Migration flows by geographic region: Where are you planning to go?**



### 3.5 Top sending and receiving countries

Figure 29 reports the top 10 countries where people intended and planned to move, for 2016 and 2015 respectively.<sup>27</sup> Annex B reports the same figures for estimates, but pooling years, i.e., considering all years together. The locations to which most individuals intend to migrate and plan to move are largely the same, although Turkey appears among the countries where people plan to go – perhaps as a result of the current migration crises. (This dataset is not representative of refugees, however, and so we failed to capture this important aspect of migration.) People most often dream of and plan on moving to the United States of America and Germany.

**Figure 29. Top 10 'receiving' countries by migration intent and plans**

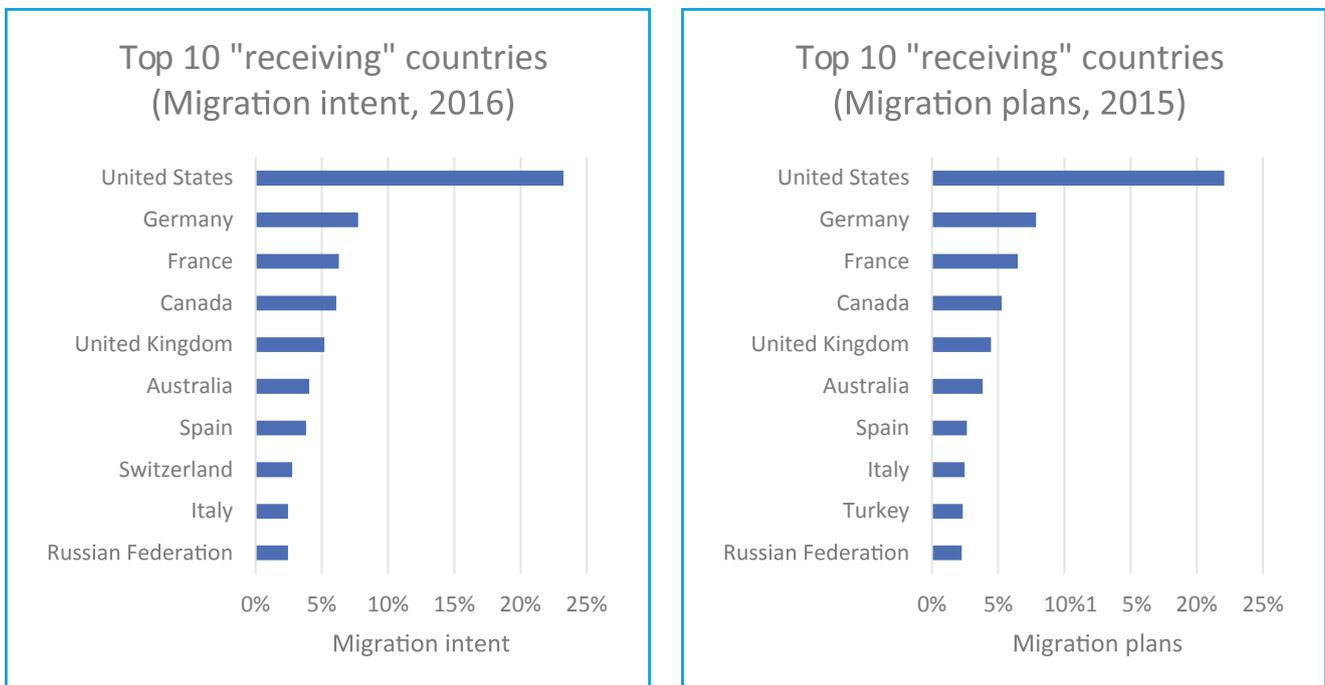
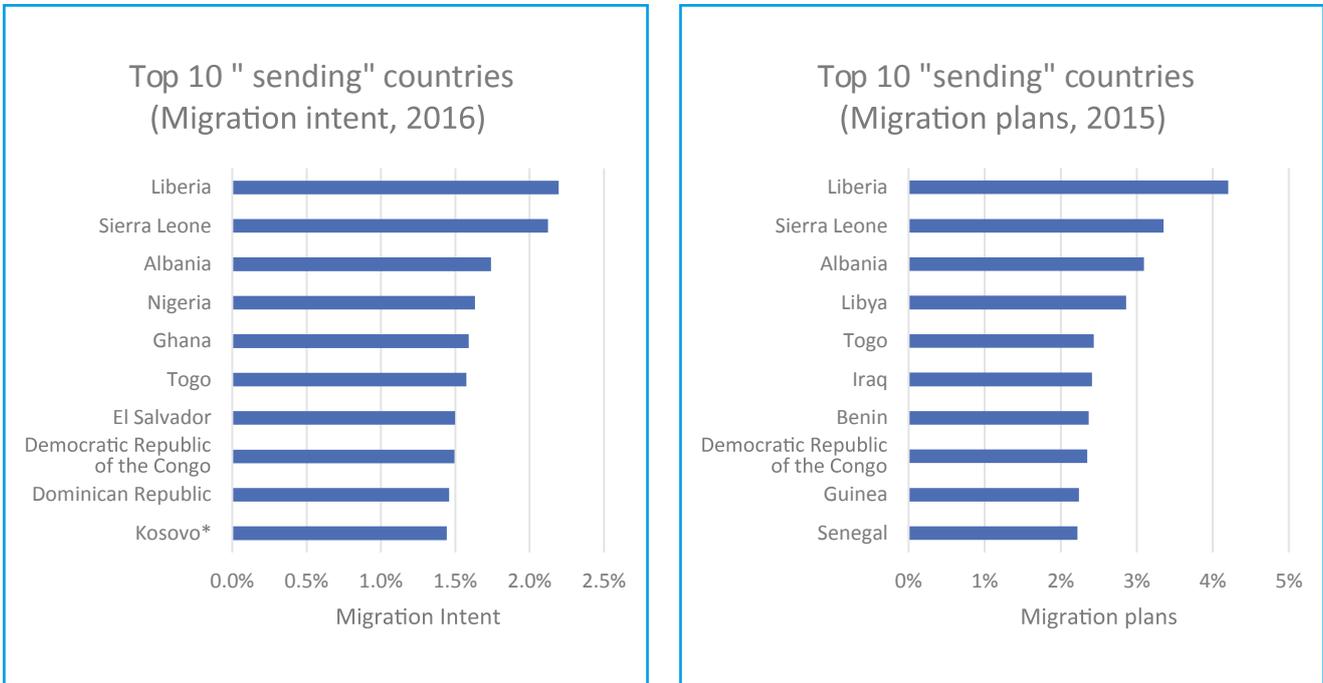


Figure 30 shows the top 10 countries of origin of people intending or planning to move abroad, for 2016 and 2015 respectively. Annex B reports the same figures for estimates, but considering all years together. The graphs show concentrations in Liberia and Sierra Leone of people who dream of and plan to move abroad.

<sup>27</sup> Data on migration plans are unavailable for 2016.

**Figure 30. Top 10 'sending' countries by migration intent and plans**



\* All references to Kosovo in this [e.g., publication/report/letter/list] should be understood to be in the context of United Nations Security Council resolution 1244 (1999)

## 4. RESULTS

While descriptive statistics are useful to understand basic trends and bivariate relationships, migration dynamics are complex and so it is important to investigate the relationships between migration intent/plans and child-related issues in a regression framework. Regression modelling allows us to estimate the contribution of each factor of interest while holding other factors constant. Thus the coefficients presented can be interpreted as the magnitude (and significance) of the relationships between each factor and the outcome migration indicator, controlling for other observed factors in the model. This is important, as there may be underlying dynamics (such as overall poverty levels or time trends) that influence both migration decisions and child-level factors. Not taking these into account would result in a skewed picture and could potentially lead to incorrect policy and programme decisions being made on the basis of the examined relationship. Further, as each indicator is measured in different units, the coefficients in the regression framework are standardized to enable direct comparison of the magnitude of the effect across observed factors.

Figure 31 shows the main results, and reports the coefficients, of our key variables of interest predicting migration intent and plans. All of the variables shown have a statistically significant effect on both dependent variables at the 1 per cent level. As shown, all of the GWP indexes, including the index on child welfare in the country of origin (Youth Development Index), are independently associated with migration outcomes. In particular, we find a negative relationship between the Youth Development Index and migration intent and plans. In other words, the probability that an individual intends to migrate – or is planning to migrate – increases in line with the perception that the community to which she or he belongs is not focused on improving child welfare. In particular, an increment in the Youth Development Index by 1 standard deviation is associated with the log odds of migration intent decreasing by 0.054 and with those of migration plans decreasing by 0.047 (or 10 standard deviations, is associated with the log odds of migration intent increasing by 0.54 and migration plans by 0.47). Perceptions of child welfare have a greater impact on predicting migration intent than the Community Basics Index and the Food and Shelter Index, considered individually. Therefore, child-related concerns seem to matter more than satisfaction with public services and food deprivation when we consider migration intent as a dependent variable. With regard to predicting migration plans, the impact of the Youth Development Index is larger than that of the Community Basics Index, Financial Life Index and the National Institutions Index, taken individually. As a consequence, satisfaction with public services, economic conditions and confidence in key institutions play a secondary role to child-related concerns when we consider migration plans as a dependent variable. Finally, children's presence in the household is positively associated with migration intent but negatively associated with migration plans. While the log odds of migration intent increase by 0.010, the log odds of migration plans decrease by 0.014. Therefore, on the one hand, children's presence is linked to looking for a better life somewhere outside of the country of origin; on the other hand, it may represent an obstacle to the realization of migration intent (children may represent additional costs in the migration process). (For full regression results tables for Figure 31 and subsequent figures, plus tables for heterogeneity analysis, a robustness check and a correlation matrix between dependent and independent variables, see *Annex C*.)

It is interesting to note that the diaspora variable appears to be extremely important in predicting migration decisions, representing the largest association in Figure 31. This is especially true for migration plans. Having relatives or friends abroad increases the likelihood of having migration intent and plans by 0.15 and 0.25 respectively. Another important migration driver appears to be the perceived level of corruption in the country of origin: an increase of 1 standard deviation in the Corruption Index increases the probability of having migration intent and plans by 0.07 and 0.05 respectively. Moreover, people who feel safe in their country (Law and Order Index) are less likely to exhibit migration intent and plans, with the log odds decreasing by 0.06 and 0.07 respectively. A greater level of confidence in national institutions (National Institutions Index) decreases the likelihood of having migration intent and plans by 0.06 and 0.04 respectively.

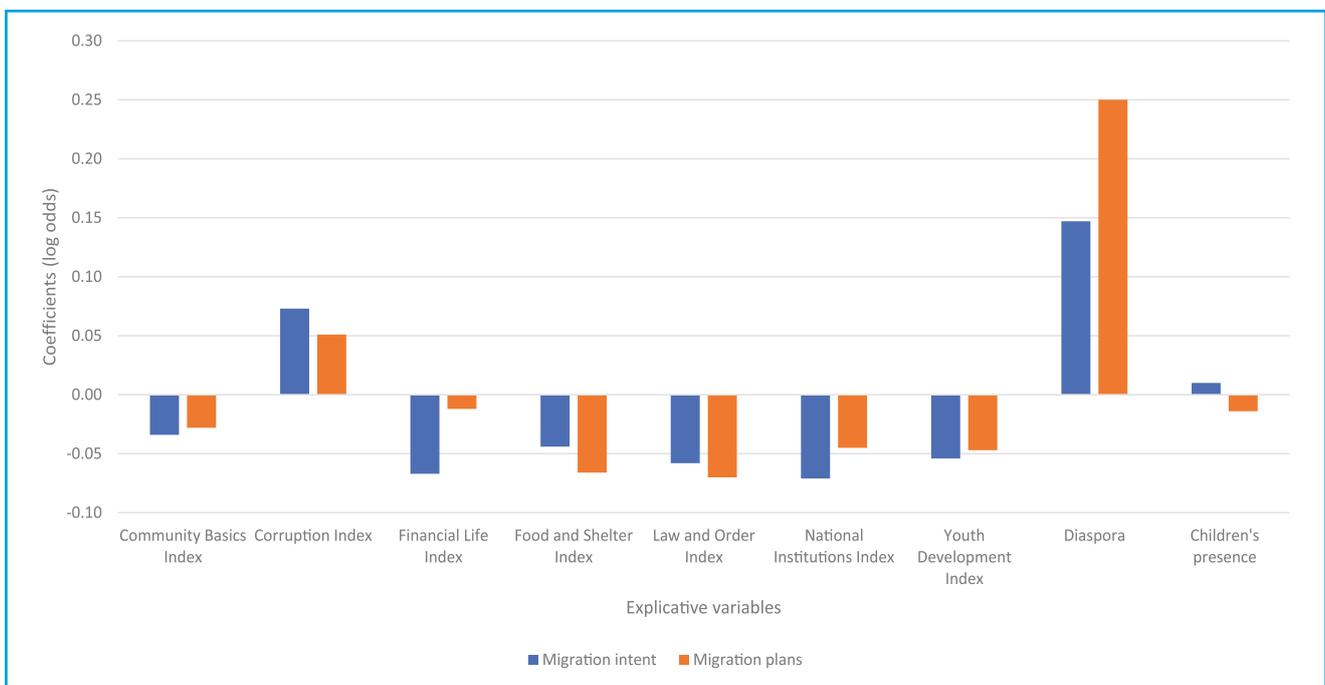
Although they are not included in Figure 31, higher household income quintiles are positively associated with migration intent, but negatively associated with migration plans.<sup>28</sup> This may suggest that people who are better off are more 'motivated' to think about migration possibilities, but poorer individuals are the ones with actual plans to migrate. Regarding other income-related measures, estimates show that not having enough money to buy food (Food and Shelter Index) increases the likelihood of both migration intent and plans. While economic frustration (Financial Life Index) is also positively related with migration intent and plans, this relationship is not significant for plans. One

28 This is also confirmed by the specification including the continuous income variable.

possible interpretation is that an intention to migrate has a stronger tendency to translate into a plan in comparatively hard situations (e.g., desperation, starvation). The education level of individuals (again, not shown in Figure 31) is also positively related with migration intent and plans: the lower the level of education, the lower the probability of having migration intent and plans. Finally, we note that women, married individuals and people living in rural areas are typically less likely to be associated with migration intent and plans.

All of these results are confirmed by the sensitivity analysis that excluded the top five refugee countries (for reporting of estimates, see *Annex B, Table 3*). Looking at the top 20 refugee countries, results are again confirmed in regard to the relationship between the Youth Development Index and migration intent – this relationship is negative and statistically significant (see *Annex B, Table 4*). Child-related concerns are not significantly related to migration plans, however – a result that should be explored further in future studies.

**Figure 31. Main results for migration intent and plans (worldwide)**



Note: Where bars are missing, variables are not statistically significant at the 1 per cent level.

Figure 32 reports the relationship between explicative variables and migration intent by income region, while Figure 33 shows the same estimates in regard to migration plans.

Looking at migration intent, the previous results are confirmed. The relationship between the Youth Development Index and intent is statistically significant at the 1 per cent level, and the magnitude of association is quite stable across income regions. People living in communities focused on child welfare are less likely to exhibit migration intent (log odds decrease by 0.05). We can note that upper-middle-income countries have a slightly higher propensity for child-related concerns (0.06) and lower-middle-income countries a lower propensity in this regard (0.04). Moreover, children's presence in the household is positively associated with migration intent in low- and upper-middle-income countries.

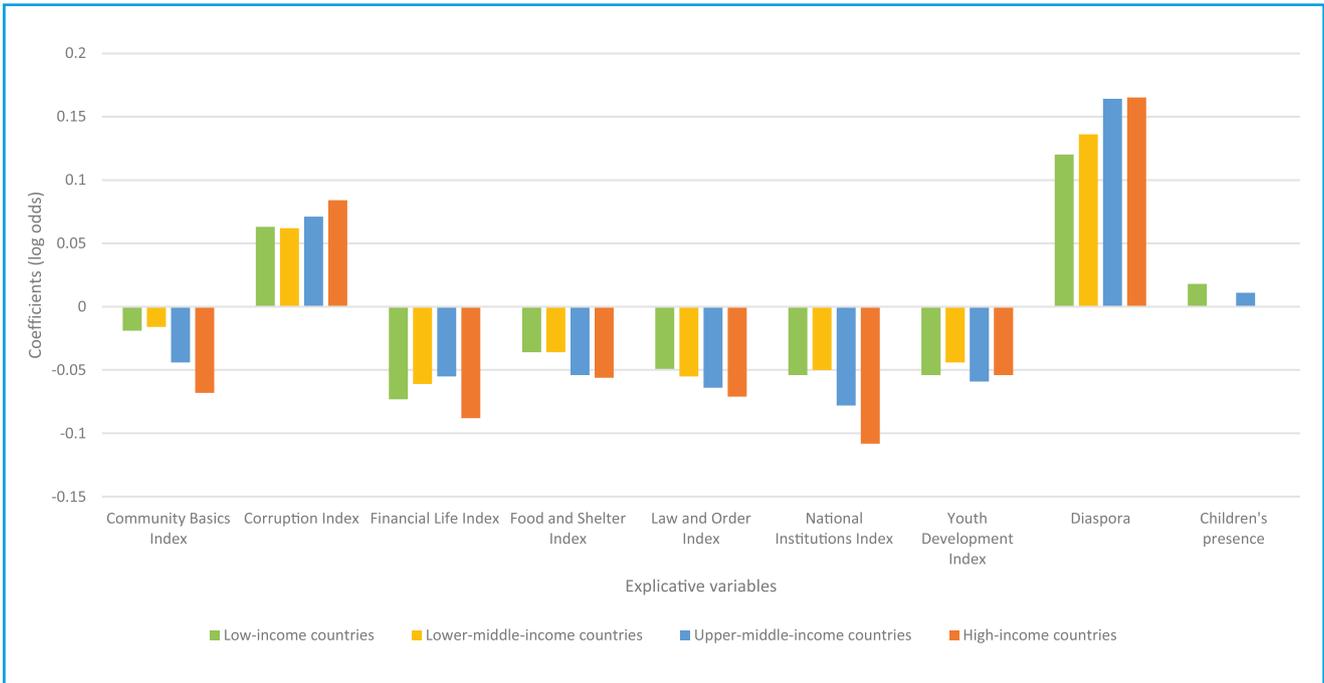
The magnitude of association between concerns related to children and migration intent appears to be similar in low- and high-income countries. Moreover, in low-income countries the magnitude of association between migration intent and the Youth Development Index is higher than it is in relation to the Community Basics Index, Law and Order Index and the Food and Shelter Index. The National Institutions Index has almost the same level of association with migration intent as the Youth Development Index. Across income regions, the Financial Life Index and Corruption Index both play an important role in predicting migration intent.

In lower-middle-income countries, concerns related to children have a lower magnitude of association with migration intent than in other income regions. Yet the level of association is still larger than the association between intent and the Food and Shelter Index and Community Basics Index. Moreover, the Law and Order Index gains importance in such countries, while the Financial Life Index appears to be associated with intent to a lesser degree than it is in low-income countries.

In contrast, the migration intent of people living in upper-middle-income countries appears to have a slightly higher comparative association with child-related concerns. Moreover, the National Institutions Index, Corruption Index and Law and Order Index each seem to play a key role in predicting intent. The Financial Life Index loses importance in this regard, while the association between migration intent and the Community Basics Index becomes important.

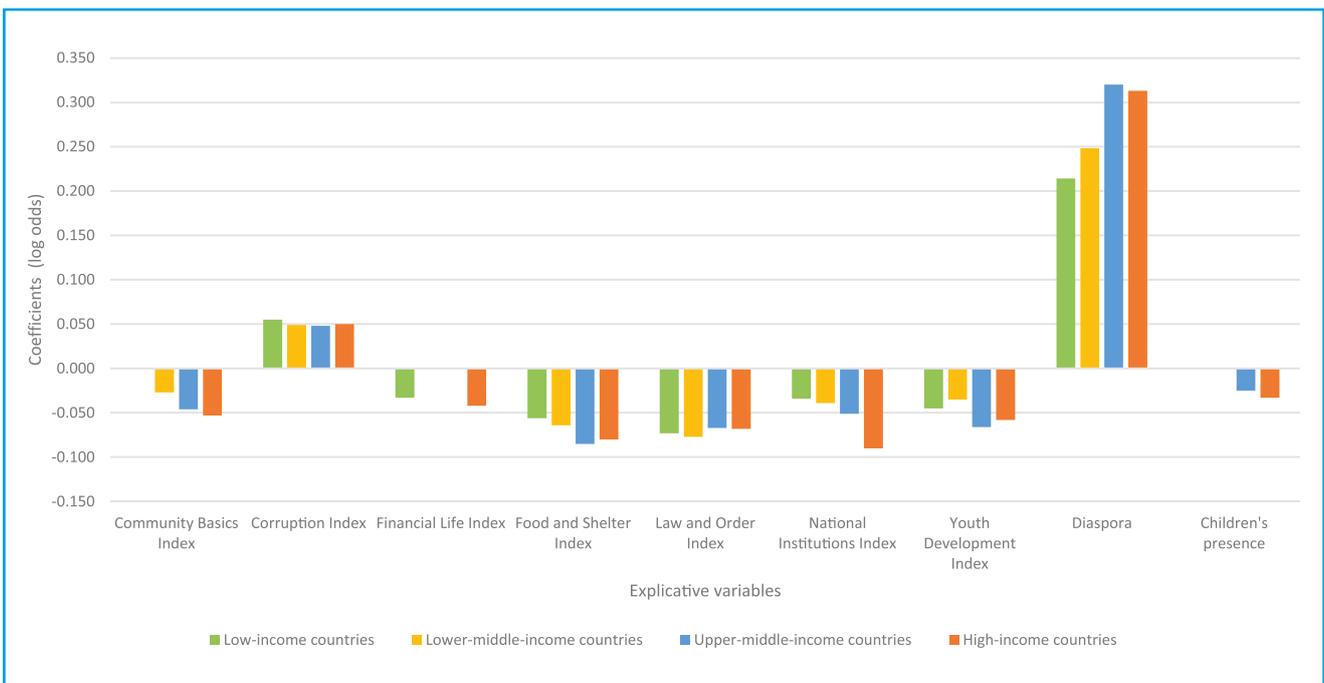
Looking at high-income countries, the Youth Development Index shows the smallest coefficient of all the indexes, while the Financial Life Index and the National Institutional Index are most important in predicting migration intent. Moreover, the Corruption Index, the Law and Order Index and the Community Basics Index each have a considerable association with migration intent. The diaspora variable appears to be the most important migration driver across all income regions – a finding that is consistent with the pooled sample.

**Figure 32. Heterogeneity analysis: Migration intent results by income region**



Note: Where bars are missing, variables are not statistically significant at the 1 per cent level.

**Figure 33 Heterogeneity analysis: Migration plan results by income region**

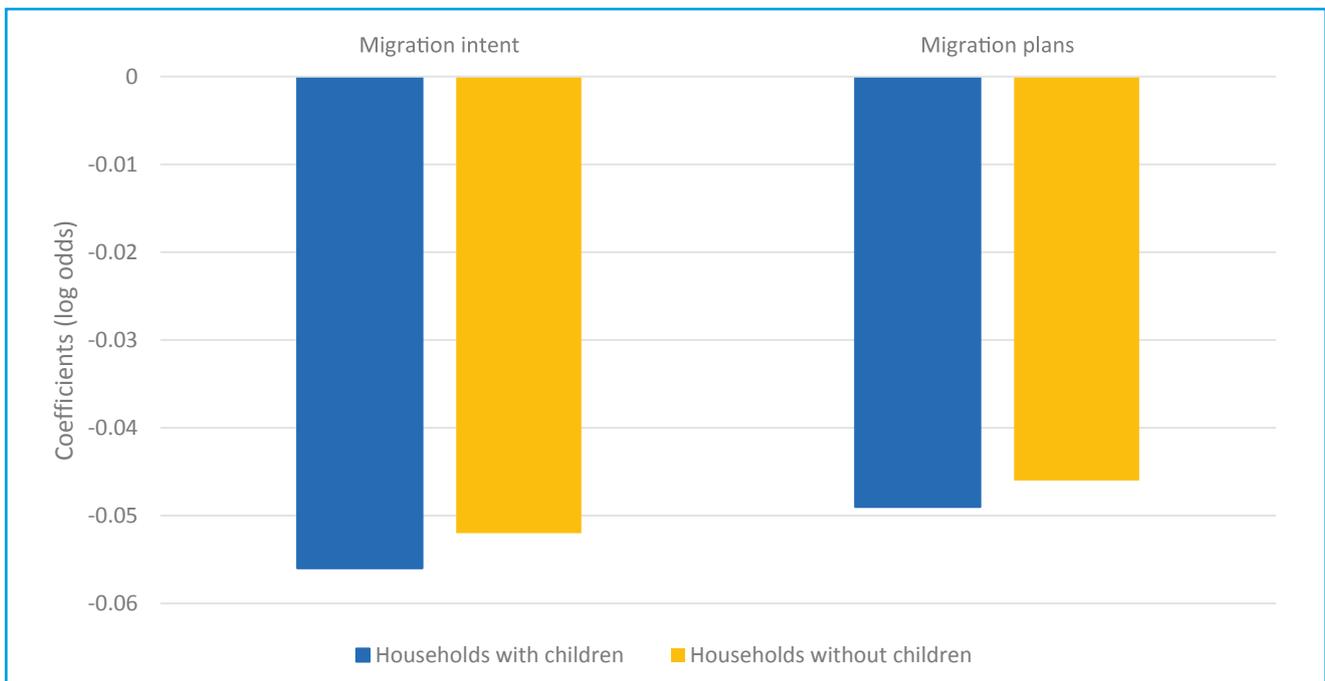


Note: Where bars are missing, variables are not statistically significant at the 1 per cent level.

Continuing on to consider migration plans as a dependent variable, the relationship with the Youth Development Index remains statistically significant. As with migration intent, people in upper-middle-income countries appear to link migration planning decisions to child-related concerns, while such links appear to be made less often in lower-middle-income countries. Children's presence in the household is negatively associated with migration plans and the relationship acquires statistical significance only in upper-middle- and high-income countries. The role of the National Institutions Index in predicting migration plans increases as we move to higher income regions. Moreover, the Financial Life Index appears to be less important in predicting migration plans than migration intent in low- and high-income countries, and its effect is not more statistically significant in lower- and upper-middle-income countries. Contrary to the findings for migration intent, the Law and Order Index and Corruption Index are associated with migration plans, especially in low- and lower-middle-income countries. Having a network abroad is strongly associated with migration plans – and at a higher magnitude than it is with migration intent.

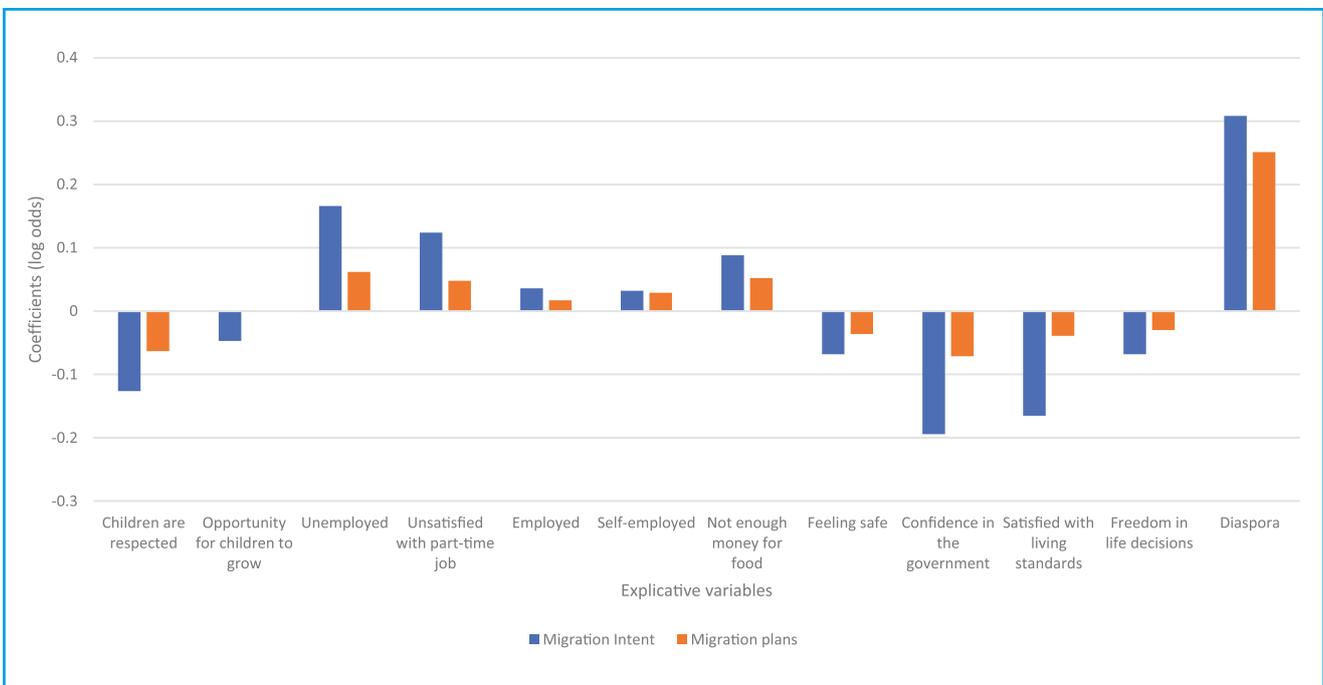
Figure 34 reports coefficients of the Youth Development Index related both to migration intent and plans for households with and without children, controlling for all previously discussed variables. We can see that the Youth Development Index has a stronger association among households with children compared to those without, in regard to both migration intent and plans.

**Figure 34. Heterogeneity analysis: Youth Development Index coefficients in households with and without children**



Finally, Figure 35 reports the coefficients of the regressions run with the ‘unpacked’ indexes. In other words, we used as explicative variables some of the direct questions from the GWP survey that had been used to build the indexes. The graph reports results for both migration intent and plans. Previous results connected with the Youth Development Index are generally confirmed. The relationship with the variable measuring respect for children in the community is statistically significant for both specifications: individuals who perceive low levels of respect for children are more likely to have migration intent and plans. Whether children can learn something new every day (not shown) has almost no influence on migration intent and no statistically significant effect on migration plans. This indicates that the previously identified associations are driven by the first indicator –respect for children – rather than the latter.

**Figure 35. Unpacked indexes: Results for migration intent and plans**



Note: Where bars are missing, variables are not statistically significant at the 1 per cent level.

## 5. CONCLUSION

This paper has analysed the GWP to uncover potential correlations between migration intent/plans and child-related variables (i.e., the Youth Development Index, respect for children and the opportunity for children to grow). A key objective was to assess the extent to which child-related concerns may constitute a possible driver of migration, after also controlling for variables traditionally put forward as migration drivers. To this end, we estimate a logit model and we perform a heterogeneity analysis to check the robustness of our results. This study is the first attempt to quantify the extent to which concerns about children affect migration decisions and will ideally motivate both academics and policymakers to address this issue.

Estimates show that the Youth Development Index and child-related variables are significantly associated with both migration intent and plans, after controlling for a range of other factors that may shape migration decisions. The probability that individuals would like to migrate – or are planning to migrate – increases in line with the perception that the community to which they belong disregards child welfare. The effect sizes are comparable to the effect sizes of factors related to economics, governance and lack of security, which are usually put forward as likely migration drivers. Migration intent and plans are associated with child-related concerns to a slightly higher degree in upper-middle-income countries than in other income regions. Unpacking the Youth Development Index, the ‘respect for children’ variable is more significant and presents higher coefficients than the ‘opportunity for children to grow’ variable. We also verified that the migration intent/plans of individuals living in households with children (aged 15 years and below) are affected more by child-related variables than those of individuals living in households without children. This relationship is quite straightforward, since households that include children would reasonably be expected to have more child-related concerns. Another striking finding is the extent to which migration is a child- and youth-related phenomenon: globally, both migration intent and migration plans peak at young age (around the age of 17 and 21 respectively). Finally, people living in households with children are more likely to intend to move abroad, but when it comes to the realization, they are the less likely to plan to migrate.

This analysis presents some limitations. Firstly, we were unable to control for unobservable individual heterogeneity, primarily due to the cross-sectional nature of the data. Relatedly, the relationship under analysis was also subject to the omitted variables bias. Country and year fixed effects as well as a range of other controls are included, however. Due to these limitations, this paper can provide answers about the potential correlation between child-related variables and migration intent/plans, but not a final conclusion on the presence of a causal relationship.

This study provides an initial insight into the relationship between child-related concerns and migration decisions. Estimates indicate a correlation between our explicative variables measuring child-related concerns and both migration intent and plans. Moreover, the estimated effect is comparable to those of factors traditionally identified as migration drivers. As a consequence, this may be a starting point for further analysis aimed at recognizing child well-being as a migration driver and at estimating a causal relationship.

Finally, our findings may be relevant in terms of policy and programming implications. In particular, they suggest that policies aiming at improving the quality of children life may have two important consequences on migration decisions. Firstly, it may act as pull factors, people on the move may be more attracted to countries favoring children friendly context with respect to others. Secondly, interventions to improve child welfare in the country of origin may discourage people from moving to another country.

## 6. BIBLIOGRAPHY

- Anrea A., F. Docquier and M. P. Squicciarini, 'Governance quality and net migration flows', *Regional Science and Urban Economics*, vol. 60, 2016, pp. 238-2
- Arango, J., 'Explaining Migration: A Critical View', *International Social Science Journal*, vol. 52, no. 165, 2000, pp. 283-296.
- Bang, J. T., and A. Mitra, 'Civil War, Ethnicity, and the Migration of Skilled Labor', *Eastern Economic Journal*, vol. 39, no. 3, 2013, pp. 387-401.
- Bauer, T. K., and K. F. Zimmermann, 'Assessment of Possible Migration Pressure and its Labour Market Impact Following EU Enlargement to Central and Eastern Europe', IZA Research Report No. 3, IZA – Institute of Labor Economics, Bonn, 1999.
- Beine, M., and C. Parsons, 'Climatic Factors as Determinants of International Migration', *Scandinavian Journal of Economics*, vol. 117, no. 2, 2015, pp. 723-767.
- Beine, M., F. Docquier, and Ç. Özden, 'Diasporas', *Journal of Development Economics*, vol. 95, no. 1, 2011, pp. 30-41.
- Black, R., et al., 'The effect of environmental change on human migration', *Global Environmental Change*, vol. 21, suppl. 1, 2011, pp. S3-S11.
- Boarini, R., et al., 'What Makes for a Better Life? The Determinants of Subjective Well-Being in OECD Countries – Evidence from the Gallup World Poll', OECD Statistics Working Paper 2012(3), Organisation for Economic Co-operation and Development Publishing, 2012.
- Borjas, G. J. (ed.), *Issues in the Economics of Immigration*, University of Chicago Press, Chicago, 2008.
- Boyd, M., 'Family and Personal Networks in International Migration: Recent Developments and New Agendas', *International Migration Review*, vol. 23, no. 3, 1989, pp. 638-670.
- Collier, P., *Exodus: How Migration is Changing Our World*, Oxford University Press, Oxford, 2013.
- Creighton, M. J., 'The role of aspirations in domestic and international migration', *The Social Science Journal*, vol. 50, no. 1, 2013, pp. 79-88.
- Cummings, C., et al., 'Why people move: understanding the drivers and trends of migration to Europe', ODI Working Paper 430, Overseas Development Institute, London, December 2015.
- Diener, E., et al., 'Wealth and happiness across the world: material prosperity predicts life evaluation, whereas psychosocial prosperity predicts positive feeling', *Journal of Personality and Social Psychology*, vol. 99, no. 1, 2010, pp. 52-61.
- Esipova, N., J. Ray and A. Pugliese, 'Gallup World Poll: The Many Faces of Global Migration', IOM Migration Research Series, No. 43, International Organization for Migration, Geneva, 2011.
- Esipova, N., J. Ray and R. Srinivasan, 'The world's potential migrants: Who they are, where they want to go, and why it matters', Gallup white paper, Gallup, 2011.
- Flahaux, M. L., and H. De Haas, 'African migration: trends, patterns, drivers', *Comparative Migration Studies*, vol. 4, no. 1, 2016, p. 1.
- Harris, J. R., and M. P. Todaro, 'Migration, Unemployment and Development: A Two-Sector Analysis', *The American Economic Review*, vol. 60, no. 1, 1970, pp. 126-142.
- Hatton, T. J., and J. G. Williamson, 'What Fundamentals Drive World Migration?', NBER Working Paper No. 9159, National Bureau of Economic Research, Cambridge, MA, September 2002.
- Heering L., R. van der Erf and L. van Wissen, 'The role of family networks and migration culture in the continuation of Moroccan emigration: a gender perspective', *Journal of Ethnic and Migration Studies*, vol. 30, no. 2, 2007, pp. 323-337, doi: [10.1080/1369183042000200722](https://doi.org/10.1080/1369183042000200722).
- Helliwell, J. F., and S. Wang, 'The State of World Happiness', ch. 2 in *World Happiness Report*, edited by J. F. Helliwell, R. Layard and J. Sachs, The Earth Institute, Columbia University, New York, 2012, pp. 10-57.
- Helliwell, J.F., R. Layard, and J. Sachs (2018). *World Happiness Report 2018*, New York: Sustainable Development Solutions Network. Accessible at <<http://worldhappiness.report>>, accessed 3 September 2018.

- 'How does Gallup's global polling work?'. *Gallup*. Available at: < <https://news.gallup.com/poll/128189/Gallup-global-polling-work.aspx>>, accessed 3 September 2018.
- Hyll, W., and L. Schneider, 'Relative deprivation and migration preferences', *Economics Letters*, vol. 122, no. 2, 2014, pp. 334–337.
- Ivlevs, A., 'Happy Moves? Assessing the Link between Life Satisfaction and Emigration Intentions', *Kyklos*, vol. 68, no. 3, 2015, pp. 335–356.
- Laczko, F., and G. Appave (eds.), *World Migration Report 2013. Migrant Well-being and Development*, International Organization for Migration, Geneva, 2013.
- Lovo, S., 'Potential migration and subjective well-being in Europe', *IZA Journal of Migration*, vol. 3, no. 1, 2014, p. 24.
- Massey, D. S., et al., 'Theories of International Migration: A Review and Appraisal', *Population and Development Review*, 1993, vol. 19, no. 3, pp. 431–466.
- Mayda, A. M., 'International migration: a panel data analysis of the determinants of bilateral flows', *Journal of Population Economics*, vol. 23, no. 4, 2010, pp. 1249–1274.
- Mbaye, L. M., "'Barcelona or die": understanding illegal migration from Senegal', *IZA Journal of Migration*, vol. 3, no. 1, 2014, p. 21
- McFadden, D., 'Conditional logit analysis of qualitative choice behavior', ch. 4 in *Frontiers in Econometrics*, edited by P. Zarembka, Academic Press, New York, 1974, pp. 105–142.
- Nikolova, M., and C. Graham, 'In transit: The well-being of migrants from transition and post-transition countries', *Journal of Economic Behavior & Organization*, vol. 112, issue C, 2015, pp. 164–186.
- Pacheco, G. A., S. Rossouw and J. Lewer, 'Do Non-Economic Quality of Life Factors Drive Immigration?', *Social Indicators Research*, vol. 110, no. 1, 2013, pp. 1–15.
- Poprawe, M. 'On the relationship between corruption and migration: empirical evidence from a gravity model of migration.', *Public Choice*, vol. 163, no. 3-4, 2015, pp. 337-354;
- Schapendonk, J., and D. van Moppes, 'Migration and Information: Images of Europe, migration encouraging factors and en route information sharing', Working Papers Migration and Development Series No 16, Radboud University, Nijmegen, September 2007.
- Simpson, N. B., 'Happiness and migration', ch. 21 in *International Handbook on the Economics of Migration*, edited by A. F. Constant and K. F. Zimmermann, Edward Elgar Publishing, Cheltenham, 2013, p. 393–408.
- Stark, O., and M. Jakubek, 'Migration networks as a response to financial constraints: Onset, and endogenous dynamics', *Journal of Development Economics*, vol. 101, issue C, 2013, pp. 1–7.
- Stark, O., M. Micevska and J. Mycielski, 'Relative poverty as a determinant of migration: evidence from Poland', *Economics Letters*, vol. 103, no. 3, 2009, pp. 119–122.
- Tay, L., and E. Diener, 'Needs and subjective well-being around the world', *Journal of Personality and Social Psychology*, vol. 101, no. 2, 2011, p. 354–365.
- United Nations, Department of Economic and Social Affairs, Population Division, *International Migration Report 2015: Highlights*, ST/ESA/SER.A/375, United Nations, New York, 2016.
- United Nations High Commissioner for Refugees, *Global Trends. Forced Displacement in 2015*, UNHCR, Geneva, 2016.
- 'Worldwide Research Methodology and Codebook'. *Gallup*. Available at: [https://data-services.hosting.nyu.edu/wp-content/uploads/2017/10/World\\_Poll\\_Methodology\\_102717.pdf](https://data-services.hosting.nyu.edu/wp-content/uploads/2017/10/World_Poll_Methodology_102717.pdf), accessed 4 September 2018.
- Winship, C., and R. D. Mare, 'Regression Models with Ordinal Variables', *American Sociological Review*, vol. 49, no. 4, 1984, pp. 512–525.

## ANNEX A: OTHER RELEVANT QUESTIONS AND INDEXES

### Gallup World Poll questionnaire

The Gallup World Poll (GWP) survey includes questions to elicit useful information on the potential main drivers of migration. In particular, it includes:

#### (i) Questions related to satisfaction:

- Are you satisfied or dissatisfied with your standard of living – with all the things you can buy and do? (1 Satisfied; 2 Dissatisfied; 3 Don't Know; 4 Refused)
- Are you satisfied or dissatisfied with the city or area where you live? (1 Satisfied; 2 Dissatisfied; 3 Don't Know; 4 Refused)
- In [country], are you satisfied or dissatisfied with your freedom to choose what you do with your life? (1 Satisfied; 2 Dissatisfied; 3 Don't Know; 4 Refused)
- In the city or area where you live, are you satisfied or dissatisfied with the education system or schools? (1 Satisfied; 2 Dissatisfied; 3 Don't Know; 4 Refused)
- In the city or area where you live, are you satisfied or dissatisfied with the availability of quality health care? (1 Satisfied; 2 Dissatisfied; 3 Don't Know; 4 Refused)
- In the city or area where you live, are you satisfied or dissatisfied with the air quality? And the water quality? (1 Satisfied; 2 Dissatisfied; 3 Don't Know; 4 Refused)

#### (ii) Questions related to safety:

- Do you feel safe walking alone at night in the city or area where you live? (1 Yes; 2 No; 3 Don't know; 4 Refused)

#### (iii) Questions related to corruption:

- Is corruption widespread throughout the government in [country]? (1 Yes; 2 No; 3 Don't know; 4 Refused)
- Is corruption widespread within businesses located in [country]? (1 Yes; 2 No; 3 Don't know; 4 Refused)

#### (iv) Questions related to confidence:

- In the city or area where you live, do you have confidence in the local police force? (1 Yes; 2 No; 3 Don't know; 4 Refused)
- In [country], do you have confidence in the military? (1 Yes; 2 No; 3 Don't know; 4 Refused)
- In [country], do you have confidence in the judicial system? (1 Yes; 2 No; 3 Don't know; 4 Refused)
- In [country], do you have confidence in the national government? (1 Yes; 2 No; 3 Don't know; 4 Refused)

- In [country], do you have confidence in the financial institutions? (1 Yes; 2 No; 3 Don't know; 4 Refused)
- In [country], do you have confidence in the honesty of elections? (1 Yes; 2 No; 3 Don't know; 4 Refused)

**(v) Questions related to freedom:**

- Do the media in [country] have a lot of freedom? (1 Yes; 2 No; 3 Don't know; 4 Refused)
- In your opinion, how many individuals in your country, if any, are afraid to openly express their political views? (1 Most are afraid; 2 Many are afraid; 3 Some are afraid; 4 No one is afraid)

**(vi) Questions related to economic conditions:**

- Have there been times in the past 12 months when you did not have enough money to buy food that you or your family needed? (1 Yes; 2 No; 3 Don't know; 4 Refused)
- What is your annual household income? (international dollars)

## Gallup World Poll indexes

Using the aforementioned questions, Gallup built various indexes spanning multiple political, social and economic topics<sup>29</sup>. As we wanted to explore the main drivers of migration in our analysis, we selected the following indexes:

**(i) Law and Order Index**

This index measures citizens' perceptions of security, with higher scores indicating a higher perceived level of security. It incorporates three questions to gauge respondents' sense of personal security:

- In the city or area where you live, do you have confidence in the local police force?
- Do you feel safe walking alone at night in the city or area where you live?
- Within the last 12 months, have you or another household member had money or property stolen?

**(ii) Food and Shelter Index**

This index measures whether a respondent has experienced deprivation in the areas of food and shelter. It is negatively related with such struggles. It incorporates two questions about respondents' ability to afford food or shelter in the past year:

- Have there been times in the past 12 months when you did not have enough money to buy food that you or your family needed?
- Have there been times in the past 12 months when you did not have enough money to provide adequate shelter or housing for you and your family?

<sup>29</sup> For more information on how indexes are aggregated see 'Worldwide Research Methodology and Codebook'. Gallup. Available at: <[https://data-services.hosting.nyu.edu/wp-content/uploads/2017/10/World\\_Poll\\_Methodology\\_102717.pdf](https://data-services.hosting.nyu.edu/wp-content/uploads/2017/10/World_Poll_Methodology_102717.pdf)>, accessed 4 September 2018.

**(iii) Community Basics Index**

This index measures overall satisfaction with life in a community. It evaluates everyday life, including environment, housing and infrastructure. Index scores increase in line with satisfaction. The index aggregates responses to the following questions:

- In the city or area where you live, are you satisfied with the public transportation systems?
- In the city or area where you live, are you satisfied with the roads and highways?
- In the city or area where you live, are you satisfied with air quality?
- In the city or area where you live, are you satisfied with water quality?
- In the city or area where you live, are you satisfied with the availability of good, affordable housing?
- In the city or area where you live, are you satisfied with the education system or schools?
- In the city or area where you live, are you satisfied with the availability of quality health care?

**(iv) National Institutions Index**

This index measures citizens' confidence in the institutions considered key to a country's leadership: the military; the judicial system; the national government; and the honesty of elections. Higher scores indicate higher levels of confidence. To build the index, respondents are asked, Do you have confidence in the following:

- The military?
- The judicial system and the courts?
- The national government?
- The honesty of elections?

**(v) Corruption Index**

This index measures perceptions within a community of the level of corruption in business and in government. Higher scores indicate a higher perceived level of corruption. The index incorporates two questions:

- Is corruption widespread within businesses located in [country]?
- Is corruption widespread throughout the government in [country]?

**(vi) Financial Life Index**

This index measures respondents' personal economic situation and the economics of the community in which they live. Higher scores reflect better economic situations. The subjective measures of financial life that make up the index complement traditional macroeconomic indicators such as gross domestic product and unemployment rates, and are particularly useful in cases where these traditional data are difficult to obtain or their quality is suspect. The index uses the following questions:

- Which one of these phrases comes closest to your own feelings about your household's income these days: living comfortably on present income; getting by on present income; finding it difficult to live on present income; or finding it very difficult to live on present income?
- Are you satisfied with your standard of living – with all the things you can buy and do?
- Right now, do you feel your standard of living is getting better or worse?
- Right now, do you think that economic conditions in the city or area where you live, as a whole, are getting better or worse?

**Country-specific questions**

Finally, the GWP survey asks questions in specific regions and/or specific years to measure opinions about issues that have a greater impact on these areas and/or at particular times.

In 2010, the survey included environmental factors as a potential reason to migrate:

- Family moved due to drought (998 respondents)
- Family moved due to environmental reasons (116,471 respondents)

Other factors related to migration are present only in some years or for some countries:

- Family member present abroad (296,162 respondents)
- Receiving remittances from abroad or from within the same country (1,271,811 respondents)

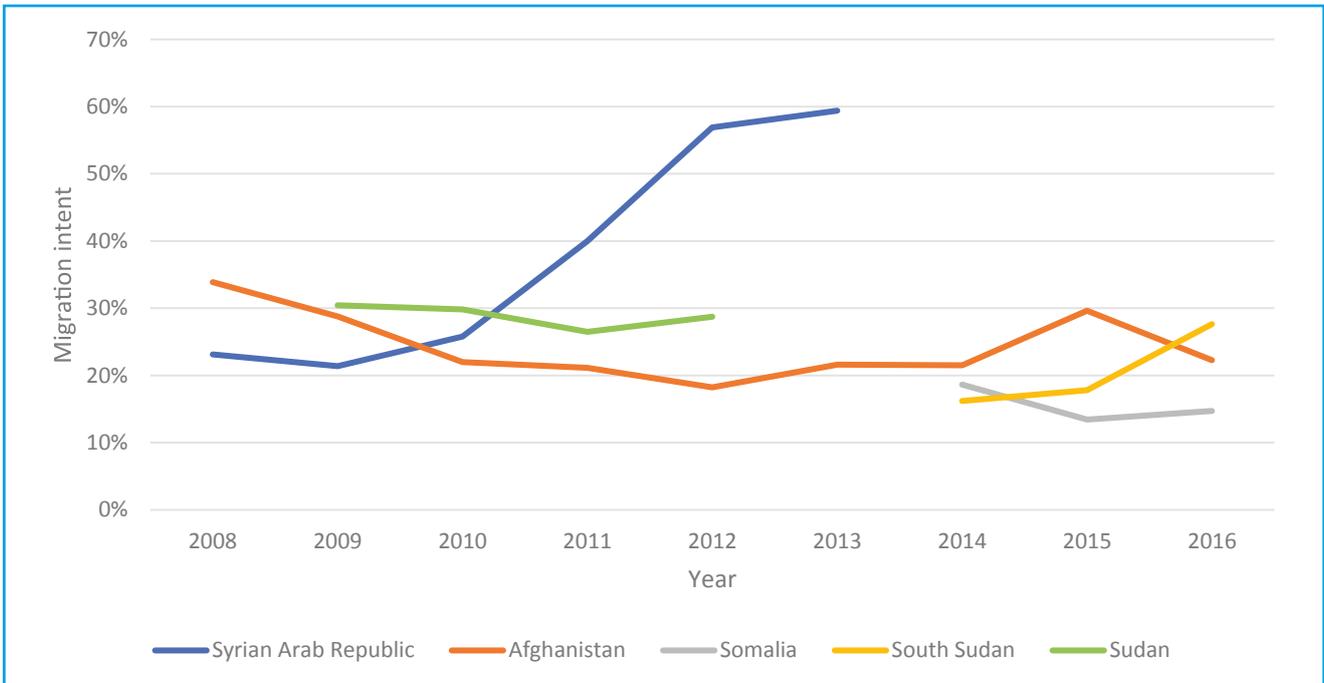
The GWP dataset also contains interesting factors related to the Syrian conflict and on similar migration phenomena:

- Family moved within the governorate
- Family moved to another governorate
- Family moved outside of the Syrian Arab Republic

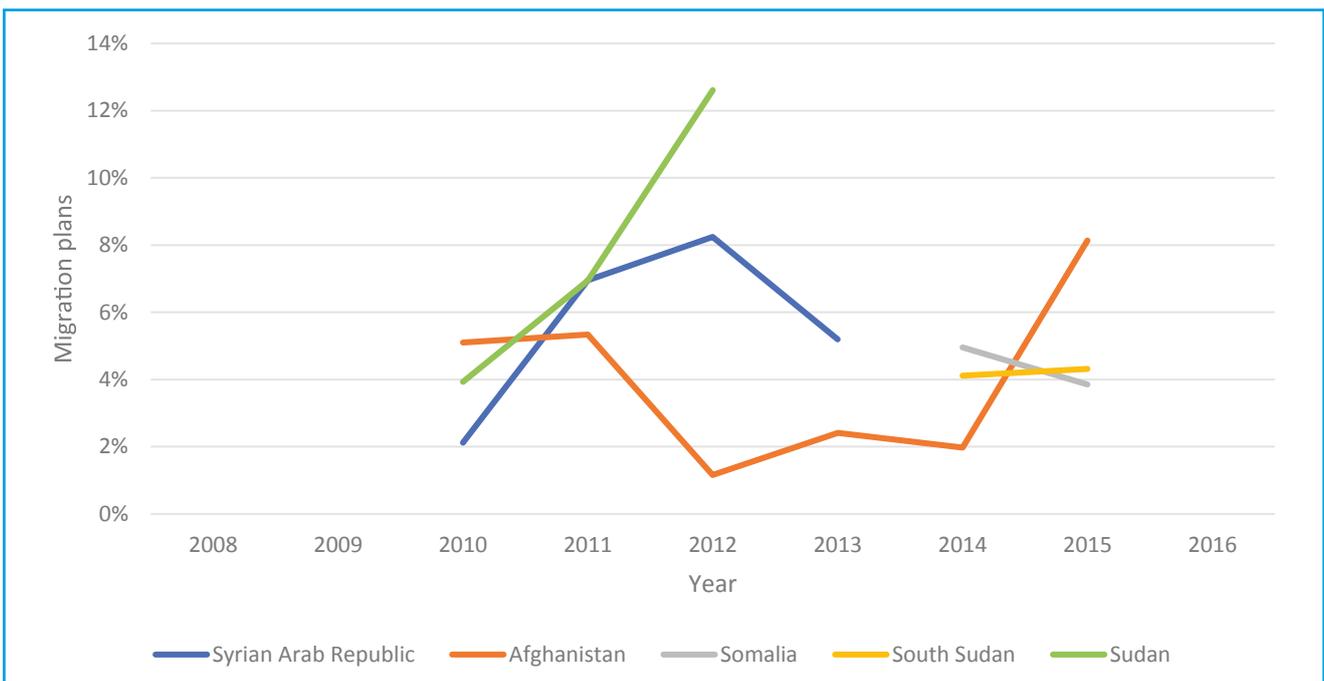
Information on the factors immediately above are available only for the years 2013 and 2015, and for a total of 1,285 respondents (599 respondents in 2013 and 686 respondents in 2015).

## ANNEX B: DESCRIPTIVE STATISTICS

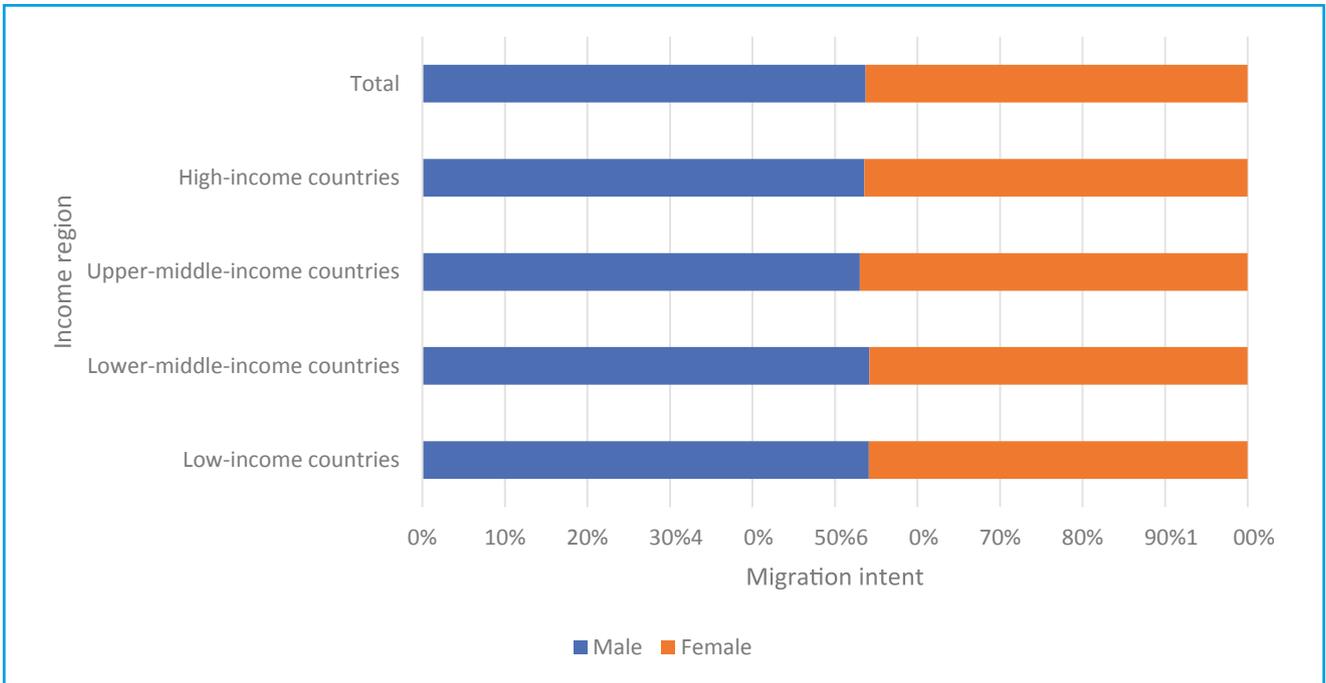
**Figure 36. Migration intent over time and by refugee crisis country of origin**



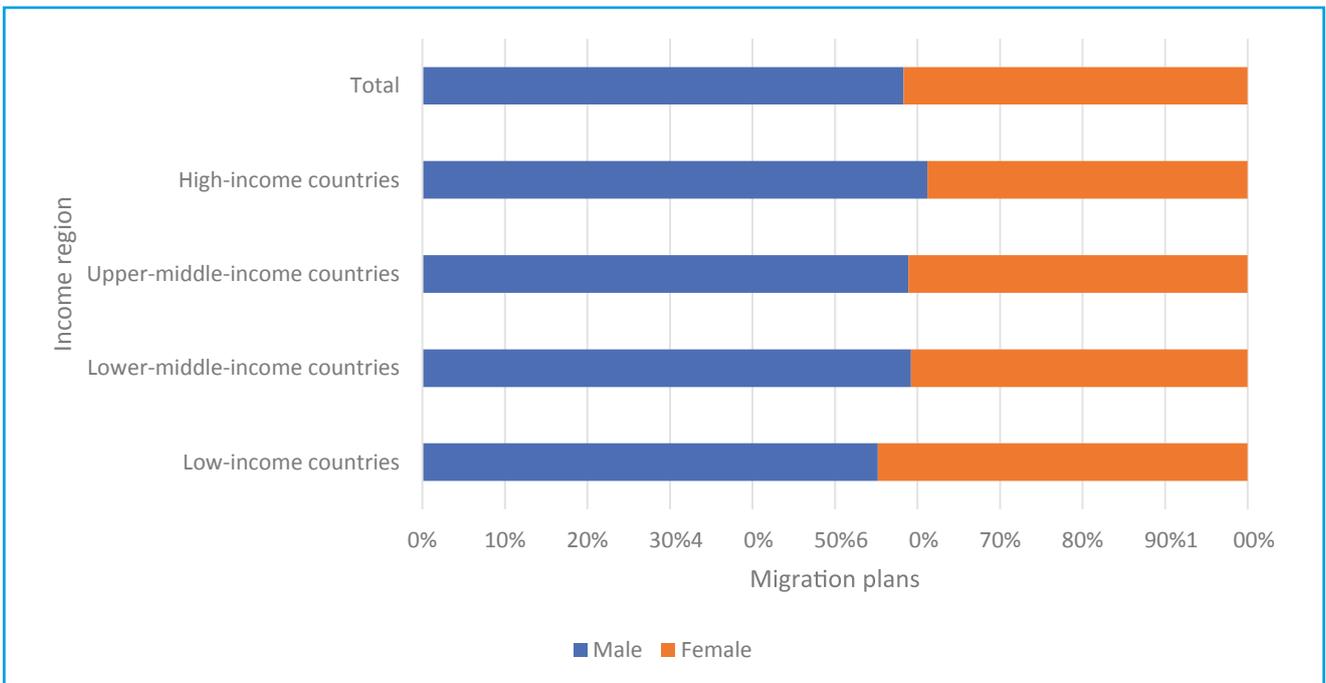
**Figure 37. Migration plans over time and by refugee crisis country of origin**



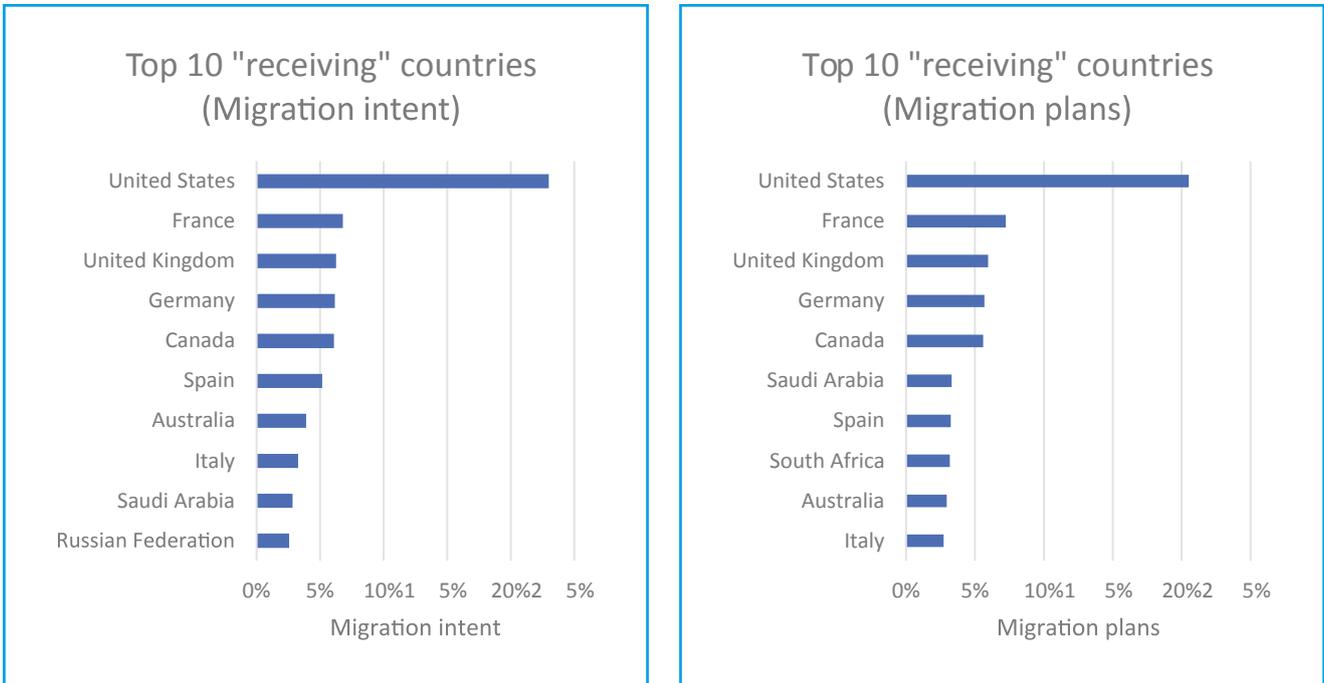
**Figure 38. Migration intent by gender and income region**



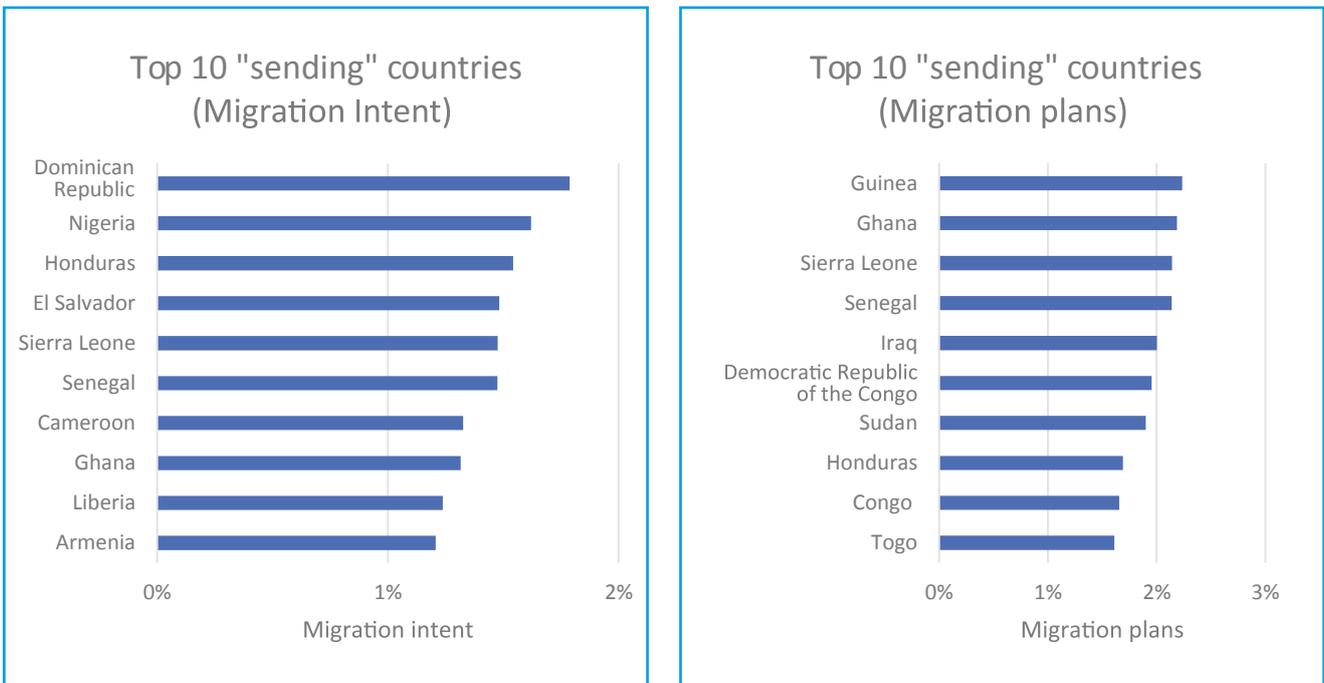
**Figure 39. Migration plans by gender and income region**



**Figure 40. Top 10 'receiving' countries by migration intent and plans**



**Figure 41. Top 10 'sending' countries by migration intent and plans**



## ANNEX C: RESULTS

**Table 2. Main results for migration intent and plans (worldwide), logit regressions**

Dependent variable	Migration intent		Migration plans	
	$\beta$	p-value	$\beta$	p-value
Age	-0.158	0.000	0.207	0.000
Age-squared	-0.132	0.000	-0.482	0.000
Female	-0.056	0.000	-0.067	0.000
Rural	-0.039	0.000	-0.053	0.000
Married	-0.058	0.000	-0.072	0.000
Children's presence	0.010	0.000	-0.014	0.001
Diaspora	0.147	0.000	0.250	0.000
Household income quintiles				
Second 20%	0.000	0.910	-0.016	0.001
Middle 20%	0.003	0.105	-0.024	0.000
Fourth 20%	0.006	0.005	-0.022	0.000
Richest 20%	0.012	0.000	-0.008	0.129
Elementary education	-0.068	0.000	-0.079	0.000
Secondary education	-0.017	0.000	-0.036	0.000
Community Basics Index	-0.034	0.000	-0.028	0.000
Corruption Index	0.073	0.000	0.051	0.000
Financial Life Index	-0.067	0.000	-0.012	0.005
Food and Shelter Index	-0.044	0.000	-0.066	0.000
Law and Order Index	-0.058	0.000	-0.070	0.000
National Institutions Index	-0.071	0.000	-0.045	0.000
Youth Development Index	-0.054	0.000	-0.047	0.000
Constant	0.6933	0.000	-5.0272	0.000
Year fixed effects	✓		✓	
Country fixed effects	✓		✓	
N. observations	692,181		558,002	
Pseudo R-squared	0.1671		0.1642	

**Table 3. Heterogeneity analysis: Migration intent and plan results in subsample excluding top five refugee countries, \* logit regressions**

Dependent variable	Migration intent		Migration plans	
	$\beta$	p-value	$\beta$	p-value
Age	-0.163	0.000	0.206	0.000
Age-squared	-0.130	0.000	-0.485	0.000
Female	-0.056	0.000	-0.066	0.000
Rural	-0.037	0.000	-0.051	0.000
Married	-0.058	0.000	-0.073	0.000
Children's presence	0.009	0.000	-0.014	0.001
Diaspora	0.147	0.000	0.251	0.000
Household income quintiles				
Second 20%	0.000	0.941	-0.018	0.000
Middle 20%	0.003	0.114	-0.024	0.000
Fourth 20%	0.006	0.006	-0.022	0.000
Richest 20%	0.012	0.000	-0.008	0.112
Elementary education	-0.067	0.000	-0.079	0.000
Secondary education	-0.017	0.000	-0.037	0.000
Community Basics Index	-0.034	0.000	-0.028	0.000
Corruption Index	0.074	0.000	0.053	0.000
Financial Life Index	-0.068	0.000	-0.015	0.001
Food and Shelter Index	-0.044	0.000	-0.066	0.000
Law and Order Index	-0.059	0.000	-0.070	0.000
National Institutions Index	-0.071	0.000	-0.045	0.000
Youth Development Index	-0.054	0.000	-0.047	0.000
Constant	0.719	0.000	-5.003	0.000
Year fixed effects	✓		✓	
Country fixed effects	✓		✓	
N. observations	682,956		549,808	
Pseudo R-squared	0.1690		0.1663	

\*Top five refugee countries excluded: Afghanistan, Somalia, South Sudan, Sudan, Syrian Arab Republic.

**Table 4. Heterogeneity analysis: Migration intent and plan results in the top 20 refugee countries, \* logit regressions**

Dependent variable:	Migration Intent		Migration Plan	
	$\beta$	p-value	$\beta$	p-value
Age	-0.190	0.000	0.096	0.218
Age-squared	-0.049	0.132	-0.296	0.001
Female	-0.068	0.000	-0.082	0.000
Rural	-0.057	0.000	-0.058	0.000
Married	-0.051	0.000	-0.069	0.000
Children's presence	0.012	0.023	-0.028	0.022
Diaspora	0.145	0.000	0.248	0.000
Household income quintiles				
Second 20%	0.004	0.467	0.007	0.621
Middle 20%	0.010	0.083	-0.007	0.640
Fourth 20%	0.008	0.182	-0.009	0.530
Richest 20%	0.009	0.152	-0.000	0.996
Elementary education	-0.097	0.000	-0.137	0.000
Secondary education	-0.014	0.078	-0.045	0.009
Community Basics Index	-0.019	0.001	-0.033	0.014
Corruption Index	0.073	0.000	0.026	0.034
Financial Life Index	-0.045	0.000	0.002	0.852
Food and Shelter Index	-0.046	0.000	-0.058	0.000
Law and Order Index	-0.065	0.000	-0.085	0.000
National Institutions Index	-0.063	0.000	-0.060	0.000
Youth Development Index	-0.036	0.000	-0.009	0.499
Constant	0.568	0.000	-2.410	0.000
Year fixed effects	✓		✓	
Country fixed effects	✓		✓	
N. observations	71,846		58,921	
Pseudo R-squared	0.1532		0.1339	

\* Top 20 refugee countries as defined by the World Bank: Afghanistan, Central African Republic, China, Colombia, Democratic Republic of the Congo, Eritrea (missing in our dataset), Ethiopia, Iraq, Mali, Myanmar, Nigeria, Pakistan, Somalia, South Sudan, Sri Lanka, Sudan, Syrian Arab Republic, Ukraine, Viet Nam, West Bank and Gaza.

We considered the Islamic Republic of Iran in place of Eritrea, for which data were unavailable.

**Table 5. Heterogeneity analysis: Migration intent results by income region, logit regressions**

Dependent variable	Migration intent							
	Low-income countries		Lower-middle-income countries		Upper-middle income countries		High-income countries	
	$\beta$	p-value	$\beta$	p-value	$\beta$	p-value	$\beta$	p-value
Age	-0.183	0.000	-0.079	0.000	-0.192	0.000	-0.182	0.000
Age-squared	-0.057	0.011	-0.160	0.000	-0.125	0.000	-0.138	0.000
Female	-0.071	0.000	-0.055	0.000	-0.040	0.000	-0.067	0.000
Rural	-0.036	0.000	-0.044	0.000	-0.026	0.000	-0.036	0.000
Married	-0.066	0.000	-0.061	0.000	-0.046	0.000	-0.046	0.000
Children's presence	0.018	0.000	0.003	0.288	0.011	0.001	0.008	0.037
Diaspora	0.120	0.000	0.136	0.000	0.164	0.000	0.165	0.000
Household income quintiles								
Second 20%	-0.006	0.155	0.007	0.060	0.002	0.685	0.002	0.702
Middle 20%	-0.004	0.360	0.014	0.000	0.003	0.429	0.002	0.659
Fourth 20%	0.003	0.471	0.014	0.000	0.001	0.861	0.014	0.002
Richest 20%	0.004	0.402	0.021	0.000	0.013	0.003	0.019	0.000
Elementary education	-0.064	0.000	-0.085	0.000	-0.034	0.000	-0.034	0.000
Secondary education	0.018	0.042	-0.025	0.000	-0.024	0.000	-0.017	0.000
Community Basics Index	-0.019	0.000	-0.016	0.000	-0.044	0.000	-0.068	0.000
Corruption Index	0.063	0.000	0.062	0.000	0.071	0.000	0.084	0.000
Financial Life Index	-0.073	0.000	-0.061	0.000	-0.055	0.000	-0.088	0.000
Food and Shelter Index	-0.036	0.000	-0.036	0.000	-0.054	0.000	-0.056	0.000
Law and Order Index	-0.049	0.000	-0.055	0.000	-0.064	0.000	-0.071	0.000
National Institutions Index	-0.054	0.000	-0.050	0.000	-0.078	0.000	-0.108	0.000
Youth Development Index	-0.054	0.000	-0.044	0.000	-0.059	0.000	-0.054	0.000
Year fixed effects	✓		✓		✓		✓	
Country fixed effects	✓		✓		✓		✓	
N. observations	117,489		205,400		206,656		162,636	
Pseudo R-squared	0.1653		0.1729		0.1678		0.1437	

**Table 6. Heterogeneity analysis: Migration plan results by income region, logit regressions**

Dependent variable	Migration plans											
	Low-income countries		Lower-middle-income countries		Upper-middle-income countries		High-income countries		Lower-middle-income countries		Upper-middle-income countries	
	$\beta$	p-value	$\beta$	p-value	$\beta$	p-value	$\beta$	p-value	$\beta$	p-value	$\beta$	p-value
Age	0.144	0.003	0.221	0.000	0.197	0.001	0.026	0.775	0.221	0.000	0.197	0.001
Age-squared	-0.342	0.000	-0.422	0.000	-0.484	0.000	-0.421	0.000	-0.422	0.000	-0.484	0.000
Female	-0.059	0.000	-0.073	0.000	-0.065	0.000	-0.092	0.000	-0.073	0.000	-0.065	0.000
Rural	-0.062	0.000	-0.044	0.000	-0.045	0.000	-0.042	0.000	-0.044	0.000	-0.045	0.000
Married	-0.070	0.000	-0.082	0.000	-0.050	0.000	-0.085	0.000	-0.082	0.000	-0.050	0.000
Children's presence	-0.001	0.842	-0.007	0.319	-0.025	0.003	-0.033	0.005	-0.007	0.319	-0.025	0.003
Diaspora	0.214	0.000	0.248	0.000	0.320	0.000	0.313	0.000	0.248	0.000	0.320	0.000
Households income quintiles												
Second 20%	-0.023	0.011	-0.004	0.623	-0.016	0.110	-0.023	0.083	-0.023	0.011	-0.016	0.110
Middle 20%	-0.033	0.000	-0.010	0.228	-0.018	0.091	-0.039	0.005	-0.033	0.000	-0.018	0.091
Fourth 20%	-0.030	0.001	-0.004	0.641	-0.020	0.066	-0.044	0.002	-0.030	0.001	-0.020	0.066
Richest 20%	-0.016	0.094	0.010	0.291	-0.000	0.977	-0.028	0.054	-0.016	0.094	-0.000	0.977
Elementary education	-0.098	0.000	-0.079	0.000	-0.062	0.000	-0.070	0.000	-0.098	0.000	-0.062	0.000
Secondary education	-0.030	0.045	-0.025	0.012	-0.045	0.000	-0.053	0.000	-0.030	0.045	-0.045	0.000
Community Basics Index	-0.007	0.427	-0.027	0.000	-0.046	0.000	-0.053	0.000	-0.007	0.427	-0.046	0.000
Corruption Index	0.055	0.000	0.049	0.000	0.048	0.000	0.050	0.000	0.055	0.000	0.048	0.000
Financial Life Index	-0.033	0.000	0.005	0.475	-0.005	0.618	-0.042	0.004	-0.033	0.000	-0.005	0.618
Food and Shelter Index	-0.056	0.000	-0.064	0.000	-0.085	0.000	-0.080	0.000	-0.056	0.000	-0.085	0.000
Law and Order Index	-0.073	0.000	-0.077	0.000	-0.067	0.000	-0.068	0.000	-0.073	0.000	-0.067	0.000
National Institutions Index	-0.034	0.000	-0.039	0.000	-0.051	0.000	-0.090	0.000	-0.034	0.000	-0.051	0.000
Youth Development Index	-0.045	0.000	-0.035	0.000	-0.066	0.000	-0.058	0.000	-0.045	0.000	-0.066	0.000
Year fixed effects	✓		✓		✓		✓		✓		✓	
Country fixed effects	✓		✓		✓		✓		✓		✓	
N. observations	104,392		170,166		166,945		116,499		104,392		166,945	
Pseudo R-squared	0.1101		0.1476		0.1749		0.1894		0.1101		0.1749	

**Table 7. Heterogeneity analysis: Migration intent and plan results by households with and without children, logit regressions**

Dependent variable	Migration intent				Migration plans			
	Households without children		Households with children		Households without children		Households with children	
	$\beta$	p-value	$\beta$	p-value	$\beta$	p-value	$\beta$	p-value
Age	-0.156	0.000	-0.180	0.000	0.314	0.000	0.086	0.008
Age-squared	-0.190	0.000	-0.025	0.050	-0.665	0.000	-0.257	0.000
Female	-0.046	0.000	-0.062	0.000	-0.059	0.000	-0.072	0.000
Rural	-0.038	0.000	-0.038	0.000	-0.038	0.000	-0.062	0.000
Married	-0.039	0.000	-0.067	0.000	-0.072	0.000	-0.068	0.000
Diaspora	0.153	0.000	0.142	0.000	0.270	0.000	0.242	0.000
Household income quintiles								
Second 20%	0.002	0.540	-0.001	0.755	-0.011	0.168	-0.019	0.002
Middle 20%	0.003	0.299	0.003	0.211	-0.016	0.055	-0.029	0.000
Fourth 20%	0.005	0.128	0.006	0.030	-0.020	0.018	-0.023	0.000
Richest 20%	0.008	0.022	0.013	0.000	-0.005	0.560	-0.009	0.138
Elementary education	-0.062	0.000	-0.069	0.000	-0.078	0.000	-0.080	0.000
Secondary education	-0.023	0.000	-0.011	0.003	-0.038	0.000	-0.031	0.000
Community Basics Index	-0.043	0.000	-0.027	0.000	-0.035	0.000	-0.022	0.000
Corruption Index	0.079	0.000	0.069	0.000	0.047	0.000	0.055	0.000
Financial Life Index	-0.066	0.000	-0.068	0.000	-0.012	0.071	-0.013	0.023
Food and Shelter Index	-0.043	0.000	-0.046	0.000	-0.059	0.000	-0.071	0.000
Law and Order Index	-0.063	0.000	-0.056	0.000	-0.071	0.000	-0.071	0.000
National Institutions Index	-0.080	0.000	-0.065	0.000	-0.052	0.000	-0.042	0.000
Youth Development Index	-0.052	0.000	-0.056	0.000	-0.046	0.000	-0.049	0.000
Year fixed effects	✓		✓		✓		✓	
Country fixed effects	✓		✓		✓		✓	
N. observations	319,419		372,762		253,314		303,184	
Pseudo R-squared	0.1831		0.1522		0.1920		0.1447	

**Table 8. Robustness check: Unpacked indexes. Results for migration intent and plans, logit regressions**

Dependent variable	Migration intent		Migration plans	
	$\beta$	p-value	$\beta$	p-value
Age	-0.199	0.000	0.118	0.001
Age-squared	-0.061	0.000	-0.362	0.000
Female	-0.054	0.000	-0.061	0.000
Rural	-0.041	0.000	-0.051	0.000
Married	-0.061	0.000	-0.070	0.000
Children's presence	0.013	0.000	-0.010	0.038
Diaspora	0.153	0.000	0.260	0.000
Household income quintiles				
Second 20%	0.001	0.623	-0.017	0.003
Middle 20%	0.008	0.001	-0.025	0.000
Fourth 20%	0.005	0.051	-0.023	0.000
Richest 20%	0.010	0.000	-0.001	0.926
Children are respected	-0.060	0.000	-0.061	0.000
Opportunity for children to grow	-0.020	0.000	0.004	0.412
Elementary education	-0.066	0.000	-0.083	0.000
Secondary education	-0.014	0.000	-0.043	0.000
Unemployed	0.042	0.000	0.060	0.000
Unsatisfied with part-time job	0.032	0.000	0.048	0.000
Employed	0.016	0.000	0.017	0.003
Self-employed	0.008	0.000	0.027	0.000
Not enough money for food	0.039	0.000	0.049	0.000
Feeling safe	-0.033	0.000	-0.038	0.000
Confidence in the government	-0.094	0.000	-0.066	0.000
Satisfied with living standards	-0.081	0.000	-0.039	0.000
Freedom in life decisions	-0.028	0.000	-0.024	0.000
Year fixed effects	✓		✓	
Country fixed effects	✓		✓	
N. observations	429,432		381,725	
Pseudo R-squared	0.1596		0.1586	

Table 9. Correlation matrix of dependent and independent variables (part A)

	Migration intent	Migration plans	Age	Age-squared	Female	Rural	Married	Children's presence	Diaspora	Income (1st quintile)	Income (2nd quintile)	Income (3rd quintile)	Income (4th quintile)	Income (5th quintile)
Migration intent	1.0000													
Migration plans	0.3532*	1.0000												
Age	-0.2133*	-0.0904*	1.0000											
Age-squared	-0.2133*	-0.0904*	1.0000*	1.0000										
Female	-0.0464*	-0.0316*	0.0178*	0.0178*	1.0000									
Rural	-0.0223*	-0.0154*	-0.0317*	-0.0317*	-0.0235*	1.0000								
Married	-0.1163*	-0.0511*	0.2673*	0.2673*	-0.0297*	0.0576*	1.0000							
Children's presence	0.0618*	0.0319*	-0.2934*	-0.2934*	0.0284*	0.1082*	0.1467*	1.0000						
Diaspora	0.1531*	0.1116*	-0.0432*	-0.0432*	-0.0072*	-0.0677*	-0.0400*	-0.0007	1.0000					
Income (1st quintile)	-0.0176*	-0.0077*	0.0253*	0.0253*	0.0388*	0.1045*	-0.0290*	0.0697*	-0.0727*	1.0000				
Income (2nd quintile)	-0.0144*	-0.0103*	0.0094*	0.0094*	0.0207*	0.0640*	0.0115*	0.0574*	-0.0469*	-0.2239*	1.0000			
Income (3rd quintile)	-0.0045*	-0.0089*	0.0013	0.0013	0.0106*	0.0169*	0.0146*	0.0252*	-0.0170*	-0.2314*	-0.2365*	1.0000		
Income (4th quintile)	0.0062*	0.0002	-0.0100*	-0.0100*	-0.0104*	-0.0420*	0.0142*	-0.0195*	0.0235*	-0.2387*	-0.2440*	-0.2522*	1.0000	
Income (5th quintile)	0.0275*	0.0247*	-0.0233*	-0.0233*	-0.0545*	-0.1299*	-0.0116*	-0.1216*	0.1030*	-0.2567*	-0.2624*	-0.2712*	-0.2797*	1.0000
Elementary education	-0.0570*	-0.0157*	0.1057*	0.1057*	0.0374*	0.2075*	0.0554*	0.1317*	-0.1015*	0.1531*	0.0778*	0.0134*	-0.0631*	-0.1633*
Secondary education	0.0518*	0.0136*	-0.1314*	-0.1314*	-0.0313*	-0.0913*	-0.0752*	-0.0625*	0.0341*	-0.0754*	-0.0187*	0.0177*	0.0431*	0.0279*
Tertiary education	0.0038*	0.0020	0.0442*	0.0442*	-0.0063*	-0.1545*	0.0323*	-0.0914*	0.0908*	-0.1025*	-0.0803*	-0.0440*	0.0247*	0.1852*
Community Basics Index	-0.1280*	-0.0606*	0.0558*	0.0558*	0.0193*	-0.0168*	0.0206*	-0.0666*	0.0250*	-0.0194*	-0.0054*	0.0047*	0.0082*	0.0104*
Corruption Index	0.0928*	0.0371*	-0.0617*	-0.0617*	-0.0296*	0.0211*	-0.0050*	0.0440*	-0.0050*	-0.0158*	-0.0033*	0.0009	0.0059*	0.0109*
Financial Life Index	-0.0682*	-0.0198*	-0.1149*	-0.1149*	-0.0253*	-0.0738*	0.0065*	-0.0080*	0.1282*	-0.1431*	-0.0911*	-0.0335*	0.0433*	0.2044*
Food and Shelter Index	-0.0930*	-0.0526*	0.0622*	0.0622*	-0.0064*	-0.1092*	0.0416*	-0.1538*	0.0434*	-0.1273*	-0.0593*	-0.0035*	0.0477*	0.1282*
Law and Order Index	-0.1160*	-0.0547*	0.0670*	0.0670*	-0.0658*	0.0892*	0.0803*	-0.0409*	-0.0008	-0.0059*	0.0024	0.0011	0.0035*	-0.0012
National Institutions Index	-0.1297*	-0.0496*	0.0208*	0.0208*	-0.0233*	0.0635*	0.0542*	0.0102*	-0.0209*	0.0000	0.0023	0.0015	-0.0008	-0.0027
Youth Development Index	-0.1214*	-0.0565*	0.0316*	0.0316*	-0.0053*	0.0334*	0.0441*	-0.0248*	0.0066*	-0.0088*	-0.0010	0.0029	0.0045*	0.0019

Table 10. Correlation matrix of dependent and independent variables (part B)

	Elementary education	Secondary education	Tertiary education	Community Basics Index	Corruption Index	Financial Life Index	Food and Shelter Index	Law and Order Index	National Institutions Index	Youth Development Index
Elementary education	1.0000									
Secondary education	-0.7508*	1.0000								
Tertiary education	-0.2950*	-0.4096*	1.0000							
Community Basics Index	-0.0326*	0.0257*	0.0079*	1.0000						
Corruption Index	-0.0148*	0.0420*	-0.0404*	-0.1437*	1.0000					
Financial Life Index	-0.1434*	0.0438*	0.1347*	0.3009*	-0.1221*	1.0000				
Food and Shelter Index	-0.1845*	0.0823*	0.1357*	0.1748*	-0.0752*	0.2687*	1.0000			
Law and Order Index	0.0046*	-0.0203*	0.0230*	0.2965*	-0.1570*	0.1709*	0.1218*	1.0000		
National Institutions Index	0.0559*	-0.0484*	-0.0073*	0.3274*	-0.2490*	0.2318*	0.0798*	0.3578*	1.0000	
Youth Development Index	-0.0131*	0.0043*	0.0119*	0.5281*	-0.1459*	0.2477*	0.1264*	0.3021*	0.3816*	1.0000

\* Significance level:  $p < 0.01$

**Table 11. Unpacked variables: Check for multicollinearity 1**

Variable	Variance inflation factor	1/Variance inflation factor
Age	29.47	0.033931
Age-squared	29.18	0.034270
Female	1.08	0.929638
Rural	1.11	0.900449
Married	1.28	0.781749
Children's presence	1.25	0.799962
Diaspora	1.04	0.963636
Household income quintiles		
Second 20%	1.69	0.590664
Middle 20%	1.75	0.571299
Fourth 20%	1.84	0.544720
Richest 20%	2.03	0.491549
Children are respected	1.44	0.695205
Opportunity for children to grow	1.44	0.694990
Elementary education	2.89	0.346066
Secondary education	2.53	0.394660
Unemployed	1.13	0.886704
Unsatisfied with part-time job	1.13	0.887771
Employed	1.42	0.704800
Self-employed	1.25	0.799025
Not enough money for food	1.19	0.843498
Feeling safe	1.11	0.903400
Confidence in the government	1.15	0.868672
Satisfied with living standards	1.19	0.841483
Freedom in life decisions	1.13	0.886517
Mean VIF	3.78	

**Table 12. Unpacked variables: Check for multicollinearity 2**

Variable	Variance inflation factor	Square root of variance inflation factor	Tolerance	R-squared
Diaspora	1.01	1.01	0.9858	0.0142
Children are respected	1.43	1.20	0.6990	0.3010
Opportunity for children to grow	1.43	1.20	0.6991	0.3009
Unemployed	1.09	1.04	0.9202	0.0798
Unsatisfied with part-time job	1.09	1.04	0.9197	0.0803
Employed	1.18	1.08	0.8506	0.1494
Self-employed	1.13	1.07	0.8813	0.1187
Not enough money for food	1.12	1.06	0.8943	0.1057
Feeling safe	1.08	1.04	0.9264	0.0736
Satisfied with living standards	1.17	1.08	0.855	0.1448
Confidence in the government	1.14	1.07	0.8785	0.1215
Mean VIF	1.17			

Eigenvalue	Cond. Index
1 6.5564	1.0000
2 1.0804	2.4635
3 1.0045	2.5549
4 1.0002	2.5603
5 0.6948	3.0718
6 0.6353	3.2124
7 0.4765	3.7095
8 0.3658	4.2336
9 0.3582	4.2783
10 0.3447	4.3615
11 0.2342	5.2909
12 0.1601	6.3992
13 0.0890	8.5833
Condition number	8.5833

Eigenvalues and Cond. Index computed from scaled raw sums of squares and cross products (w/ intercept)  
 Determinant (correlation matrix) 0.3856



