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Income and the desire to migrate

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Abstract

We analyse the role of household and country-level personal income in explaining both the desire to emigrate and the desired destination country. We use data from the Gallup World Poll and applications to the US Diversity Visa Program. We find that higher GDP per capita at destination is strongly associated with a higher desire to move to that country. We do not find strong support for the selection hypothesis that people want to move to countries with a higher return to their level of education. On emigration, we find that both personal income and aggregate income matter. In poorer countries richer people are more likely to want to emigrate, while the opposite is true in richer countries. In looking at the impact of origin country income on the desire to emigrate, we find little evidence for the upward part of Zelinsky's 'hump-shape' migration transition hypothesis.

Key words: international migration, migration intentions, development

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Introduction

The migrant share of the population in OECD countries has risen from 9 percent in 1990 to more than 15 percent in 2020¹. Inflows of permanent migrants to OECD countries increased from 3.85 million in 2000 to 7.06 million in 2016². Despite this, there are almost certainly many more people who would like to migrate to another country than are currently allowed under the immigration policies of popular destination countries. Gallup estimates that 15 percent of the world population, corresponding to 750 million people, would like to move in 2017³. This compares with the 3.5 percent of the world population who the UN estimates are currently migrants in 2019⁴. The gap between the numbers who would like to and are able to migrate is a source of pressure and imbalance that needs to be understood. That involves studying the factors that influence the desire to emigrate and the desired destination. This paper is about the effect of both personal household and aggregate country-level income in both origin and destination countries on these desires.

To measure migration desires, we use the Gallup World Poll (GWP) that asks people whether they would like to move permanently to another country and, if so, their preferred destination. One potential criticism of this data is that it represents vague aspiration rather than actual intent. So, we supplement the GWP analysis with data on applications to the United States Diversity Visa (US DV) programme, a green card lottery that takes place every year and which has much weaker eligibility criteria than most other visas.

Several papers have used the GWP data on desired destination. Docquier et al. (2014) aggregate the desired destination data to estimate models for the number of potential migrants between origins and destinations. Docquier et al. (2015) and Dao et al. (2018) use responses to this question primarily as inputs into other analyses. The only paper we are aware of that estimates desired destination models using the individual data (as we do) is Bertoli and Ruysen (2018), which focuses on how personal contacts affect the desired destination.

There are a larger number of papers analysing the GWP question on desire to emigrate either using aggregated or individual data. Migali and Scipioni (2018) find that gender, education, and networks abroad all influence the intention to migrate. Manchin and Ozarbayev (2014) also investigate the impact of social networks on the desire to migrate. Sadiddin et al. (2019) investigate desired migration for sub-Saharan African countries, Smith and Floro (2020) analyse a wider range of low- and middle-income countries. Clemens and Mendola (2020) investigate the impact of household income on the desire to emigrate.

Compared to existing studies, we focus on analysing the impact of both household and aggregate income on both the desire to migrate and the desired destination, though we have to control for a wider range of factors affecting the responses. We find that aggregate GDP per capita in destination countries has a very strong, robust, positive impact on the desired destination, consistent with the studies that analyse the determinants of actual migrant flows (e.g Borjas, 1987; Hatton, 2005; Mayda, 2010; Ortega and Peri, 2013; Clemens, 2014; Borjas et al., 2019). We also investigate the self-selection hypothesis of Borjas (1987), that migrants

¹ Source: OECD data.

² 2020 IOM World Migration Report https://publications.iom.int/system/files/pdf/wmr_2020.pdf

³ <https://news.gallup.com/poll/245255/750-million-worldwide-migrate.aspx>

⁴ Data for 2019, 2020 IOM World Migration Report https://publications.iom.int/system/files/pdf/wmr_2020.pdf

are more likely to desire to move to destination countries that offer a higher income level for their level of skills. We find little evidence for this hypothesis in our data.

We also investigate the role of origin country income on the desire to emigrate. Zelinsky's migration transition hypothesis (Zelinsky, 1971) posits a hump-shaped relationship between growth and emigration. Emigration first rises with increased development, then falls reaching its peak in middle-income countries. This hypothesis is important because economic development in source countries is often proposed as a policy to reduce migratory pressures but Zelinsky's hypothesis suggests this may be ineffective over some range. A number of studies report results consistent with the Zelinsky's hypothesis on actual migrant flows (e.g. Clemens, 2014, 2020; Docquier et al. 2014; Djajic et al. 2016; Lucas, 2019) though others report results that are less consistent (e.g. Ortega and Peri, 2013; Benček and Schneideheinz, 2020). Dustmann and Okatenko, (2014) and Dao et al. (2018) also report results that align with the Zelinsky's hypothesis using GWP data on desired migration but the former focuses on internal⁵ as well as international migration and the latter finds the relationship is stronger for less-educated workers and weaker in desired than actual emigration.

Zelinsky's hypothesis is commonly expressed as a relationship between actual emigration and the level of economic development of a country, usually measured by GDP per capita. This paper unpacks the hypothesis in three ways. First, observed emigration will be a function of "inclination and opportunity" (Zelinsky, 1971, p236). The opportunity to emigrate may be constrained by the resources of the potential migrant but also by the restrictive immigration policies of destination countries. It is useful to distinguish between the roles of inclination and opportunity and this paper focuses on the former.

Secondly, economic development has many dimensions of which rising real GDP is only one, albeit a very important one. Education levels generally rise as does the capability of the state possibly affecting the quality of life. It is possible that different dimensions of development have different effects on the desire to emigrate and it is important to consider them individually as well as to provide an overall assessment of the impact of development. This paper focuses on the role of income on the desire to emigrate while controlling for other relevant factors.

Thirdly, the Zelinsky's hypothesis focuses on the role of country-level income on emigration. But it is also interesting to consider the impact of household income i.e. whether within a country those with higher incomes are more or less likely to want to migrate. Clemens and Mendola (2020) find evidence that, within developing countries, those with higher income are more likely to want to emigrate, with a stronger relationship for those with plans or preparation to emigrate. Consistent with Clemens and Mendola (2020) we find evidence that higher income within a country raises the desire to emigrate in countries that have lower GDP per capita, but reduces it in richer countries. When we move to the aggregate level, we find little evidence for the Zelinsky hypothesis. We generally find a negative relationship between a country's average GDP per capita and the desire to emigrate for all relevant levels of GDP per capita. Although we find little evidence for the hump shape of Zelinsky's hypothesis, we do find some results that can be thought of as being in the spirit of a weaker version of the Zelinsky hypothesis. First, there is an important asymmetry in the estimated impact of income in origin and destination countries with the latter being much more important. Income is less important for determining whether people want to migrate than where they want to migrate to. Secondly, there seems to be a non-linearity in the relationship between origin

⁵ Bazzi (2017) also considers the impact of income and wealth shocks on internal migration within Indonesia.

country income and the desire to emigrate, with a clearer negative relationship among higher-income countries. In poorer countries any relationship between income and desired emigration is weaker and varies more with specification. As this implies that development is unlikely to ease migratory pressures even if it does not worsen them; one might interpret this as a weaker version of Zelinsky's hypothesis.

Although it is not our focus, we find evidence that other factors associated with higher economic development are important determinants of the desire to emigrate; higher life satisfaction is associated with a lower desire to emigrate (as in Cai et al, 2014) but higher education with a higher desire.

The GWP data can be criticised as representing no more than aspiration, so we also analyse applications to the US Diversity Visa (DV). This data has two advantages over the GWP data. First, these are real applications from people who would like to move if they are selected and presumably have the resources to move if selected. Second, compared to most visa routes, the US Diversity Visa is very open so that applications are less likely to be influenced by the immigration policies of destination countries. However, the DV data has the disadvantage that it represents applications to one country - so we cannot investigate the impact of 'pull' factors - and we have only aggregated data on applications by country so we cannot investigate the role of individual characteristics, only of aggregate 'push' factors. However, we find little evidence for the upward part of the hump-shape of the Zelinsky's hypothesis in the DV data.

The plan of the paper is as follows. The first section describes the GWP data. The second section describes our destination model and discusses the results on the role of GDP at destination to explain potential immigration flows. The third section presents our model for emigration and discusses the role of both individual and aggregate income. The fourth section describes the DV data and presents the results. The fifth section concludes.

1. The Gallup World Poll Data

Our data comes from the Gallup World Poll, conducted since 2005 and now covering 159 countries⁶, listed in Appendix A.1. The main GWP question on the desire to migrate is, "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?". This question has been termed 'migration desire' by Sadiddin et al. (2019)⁷. 22% of respondents say they want to migrate but there is a lot of variation which this paper investigates.

For those who answer 'yes' to the migration desire question, GWP further asks "To which country would you like to move?". The responses to this question have been analysed much

⁶ The total number of countries/territories covered by the GWP survey is 168. We excluded 9 countries/territories due to the lack of consistent aggregate socio-economic data. Part of the countries excluded (Cuba, Guyana, Nagorno Karabakh, and Puerto Rico) are in GWP for one year only, and they would not contribute to results in specifications that include country fixed effects.

⁷ GWP asks two additional questions on the same theme: "Are you planning to move permanently to another country in the next 12 months, or not?" and "Have you done any preparation for this move?". The first question is only asked to people who have expressed the desire to permanently migrate. The second question only asked to those who have answered 'yes' to the first question. These questions have been termed 'migration planning' and 'migration decision' (Sadiddin et al., 2019). We will use these additional questions in our robustness analysis.

less than the willingness to migrate⁸. There is a lot of variation in the responses: 193 countries are mentioned at least once⁹ including destinations that might not be thought of as particularly attractive places to live due to wars or authoritarian regimes, for example.

The GWP also asks two further questions about possible emigration: “Are you planning to move permanently to another country in the next 12 months, or not?” which we refer to as the migration planning question and “Have you done any preparation for this move? (Examples include buying an air-ticket, applying for a visa, or making other arrangements for the move)”, which we refer to as the migration preparation question. One can debate which of the three questions best captures the desire to emigrate. The migration desire question can be criticised for the fact that it only captures an inclination rather than serious intent. Specifically, when it comes to the role of income, it could be that the poor have the inclination to emigrate but lack the financial resources needed to convert to an opportunity. On the other hand, the migration preparation and planning questions are likely to be more influenced by the immigration policies of destination countries e.g. there is little point applying for a visa you will not get or buying a plane ticket if you are not going to be admitted (though those intending unauthorised migration may also report plans). So, while perhaps capturing better actual migration choices, the responses to the plan and preparation questions may be worse at capturing the desire to emigrate. It is likely that none of these questions are perfect; our main analysis uses the migration desire question, but we often report robustness checks on the migration preparation and planning questions.

Although the focus is on the role of income in influencing desired migration, it is obviously important to control for other possible ‘push’ and ‘pull’ factors (at individual, household, and country-level) influencing desired destination as is done in the statistical analysis. We now describe these other controls.

1.1. Individual and Household Characteristics

Our main income measure is log equivalised real household income (in 2010 international dollars)¹⁰. We control for individual demographics (age, gender, education, and migrant status) and some household characteristics (household size¹¹, the number of children and whether married). Quality of life may be wider than material well-being, so we also include measures of both current life satisfaction (Cai et al, 2014, find this variable important) and expected life satisfaction in 5 years, which can be interpreted as a measure of optimism about the future. We also include a measure of satisfaction with the level of freedom in the country¹².

Table 1 provides descriptive statistics by whether individuals express a desire to remain or emigrate. People who would like to emigrate are less likely to be women, they are younger, and less likely to have only primary school education. They are more likely to be born abroad (so are currently an immigrant) and have on average fewer kids. They have on average a lower per capita household income. Life satisfaction is lower for the prospective migrants, as

⁸ Though are used by Gallup in the calculation of their Potential Net Migration Index

<https://news.gallup.com/poll/245270/newest-potential-net-migration-index-shows-gains-losses.aspx>

⁹ The total number of countries mentioned by GWP respondents is 198. We have though to exclude 5 countries – North Korea, Palestine, Réunion, Somalia, and Syria - due to external data availability.

¹⁰ Income is only available in GWP since 2009.

¹¹ The household size variable is available in GWP for computing income per capita and is available since 2009 only.

¹² Appendix A.2 illustrates more in detail the variables we include and the GWP questions we used.

well as the satisfaction with the level of freedom in the country, while the ‘optimism’ measure is quite similar in the two groups. Note that the fraction of those who desire to emigrate who report active preparation and plans is quite small. Of those who respond to those questions, 15 percent report planning to migrate within 12 months, and 37 percent of those planning to migrate have also done some preparation.

Bertoli and Ruysen (2018) show that emigration desire is related to responses to the GWP question “Do you have relatives or friends who are living in another country whom you can count on to help you when you need them, or not?” and related question on the countries where relatives and friends are. However, GWP only asks this question up to 2011, so including it would result in dropping a substantial proportion of the dataset.

1.2. Country-level Characteristics

One set of country-level variables measure the quality of life in a country which may be relevant as both a ‘pull’ and a ‘push’ factor. As a measure of the level of material living standards, we use log GDP per capita in 2010 PPP dollars (source: World Bank data— listed in Appendix A.3). This measures the average standard of living in a country, but income distribution may also be important (Grogger and Hanson, 2011). To try to capture this we also sometimes include the ratio of the income share of the 3rd and the 1st income quintile as a measure of inequality at the bottom of the distribution and the ratio between the 5th and 3rd quintile income shares as a measure of top-end inequality. However, these measures are not available for many countries¹³ and are probably less comparable measures than GDP per capita. For OECD countries we also have measures of the returns to education, and we sometimes use these as an alternative measure of returns to skill.

In line with other research (e.g. Llull, 2017) we include a measure of how many people are affected by natural disasters, a measure of deaths related to current conflicts. We also include a measure of the political regime from Polity IV. Finally, we include log total population and log land area to see whether country size or population density have an impact on migrants’ choice¹⁴.

We include a set of variables designed to capture the distance between origin and destination countries, which might be thought as capturing information or migration costs (Llull, 2016; Adsera and Pyttikova, 2015). We include a measure of log physical distance between main cities in terms of population which has been found to be very important in studies of actual migration flows (Beine et al 2016), as well as a dummy variable for the countries being contiguous. We also include variables designed to capture distance in other dimensions; whether the countries share a colonial history, whether there is a common language, whether there is a common religion. We include the fraction of migrants from the country of origin that are resident in a specific destination country to capture network effects that are often found important. We also include a variable indicating that no work visa is required i.e. there is free movement of labour between the pair of countries¹⁵.

¹³ The inclusion of some variables limits the availability of potential destinations in our choice model. For instance, including measures of political regime excludes 38 potential destinations. Including also measures of inequality, further 18 destinations are excluded. Countries that we lose tend to be quite small and are chosen only 9 percent of times as preferred destination. The list of destinations excluded when including all variables in the model is in the Appendix A.1.

¹⁴ Appendix A.4 describes the data sources and the variable definitions in more detail.

¹⁵ All variables on distance are described more in detail in the Appendix A.5.

The next section describes how we analyse the GWP data.

2. Statistical Model for the GWP data

In the GWP data we are interested modelling whether an individual would like to migrate and, if so, their desired destination. We use a nested logit specification in which the upper nest is the stay/migrate decision, and the lower nest is, for those who would like to migrate, the desired destination.

For those who would like to migrate, denote by p_{iodt} the probability of individual i in origin country o at time t saying they would like to move to destination d and assume (as in Bertoli and Ruysen, 2018) this has the following form:

$$p_{iodt} = \frac{e^{V_{iodt}}}{\sum_{d' \neq o} e^{V_{iod't}}} = \frac{e^{V_{iodt}}}{e^{IV_{iot}}}, \quad IV_{iot} = \log \sum_{d' \neq o} e^{V_{iod't}} \quad (1)$$

where V_{iodt} is a measure of the attractiveness of different destination countries. This statistical model can be micro-founded in a random utility model where V_{iodt} is the expected utility and there is also an idiosyncratic term with an independent type-1 extreme value distribution. The expression IV_{iot} is the inclusive value which can be interpreted as the expected value from migrating.

The model for the upper nest is a logit with the probability of wanting to migrate m_{iot} being given by:

$$m_{iot} = \frac{e^{V_{ioot} - \alpha IV_{iot}}}{1 + e^{V_{ioot} - \alpha IV_{iot}}} \quad (2)$$

Where we use V_{ioot} to denote the expected utility from staying in the origin country. Because of the presence of IV_{iot} in this equation which is computed from (1), it is conventional to analyse the data in a recursive way, first studying the lower nest and then the upper nest. The case $\alpha = 1$ is particularly interesting as this corresponds to the case where the nested logit model reduces to an un-nested model in which the option to remain in the origin country is treated the same as every other possible destination (as, for example, assumed in the Roy model used in Grogger and Hanson, 2011).

2.1. The Desired Destination

Although 193 countries are chosen at least once, some are chosen much more often than others. Table 2 lists the top 10 countries of choice which account for approximately 56 percent of all choices. Bertoli and Ruysen (2018) point out that the desired destinations are more concentrated than the actual flows, as one might expect if actual flows are restricted by the policies of destination countries and some migrants have to settle for less preferred destinations. It is noticeable from Table 2 that the ‘top’ choices are all high-income countries: Figure 1 shows the correlation between GDP per capita and the fraction of migrants who would like to move there together with a smoothed mean. There is a strong positive relationship though one needs to control for other possible ‘push’ and ‘pull’ factors (at individual, household, and country-level) influencing desired destination as is done in the statistical analysis.

To implement (1) we need a model for V_{iodt} . Our models have the general form:

$$V_{iodt} = \beta_1 z_{dt} + \beta_2 z_{odt} + \beta_3 x_{it} z_{dt} \quad (3)$$

Where z_{dt} are destination-country variables, z_{odt} are origin-destination interaction variables and x_{it} are individual variables which are interacted with destination country variables. Individual and country of origin characteristics do not appear in level-form in (3) because variables that affect utility equally in all destination countries will not affect the choice of destination countries. But these variables might have an impact through interaction with destination country characteristics. For example, in our baseline model we include a variable that indicates when the desired destination is the country of birth of the individual, meaning they would like to return home.

Theoretically, a migrant could want to move to any other country in the world, so we estimate the model in (1) allowing for as many possible destinations as we can find information on: 200 countries in total. However, one feature of the multinomial logit model is that one can condition without inducing bias on a sub-set of possible choices restricting the sample to those whose choices are in that sub-set. This result is very helpful when we want to include variables that are only available for some countries e.g. those in the OECD. Restricting the sample, for some specifications, to OECD destination is not particularly limiting in terms of sample size, as 65.4 percent of our sample want to go to OECD countries (Table 2).

Because our destination model has 199 destinations for each individual (excluding the current country of residence), the multinomial logit model is implemented as a Poisson model. Baker (1994) shows this is equivalent to the multinomial logit model not just asymptotically but in every sample. The specification of the model in this case is a Poisson regression in which an observation is an individual-destination pair where individuals who express a desire to migrate are included and every possible destination country for which we have data is included as potential destination. The dependent variable takes the value one if that country was mentioned by the individual and zero otherwise. The model includes individual fixed effects to ensure the Multinomial-Poisson equivalence (Baker, 1994). These fixed effects will include any individual or origin country-level characteristics.

This specification has similarities to the gravity models used to model actual aggregate migration flows between countries (see, for example, Ortega and Peri, 2009, 2013; Mayda, 2010, Lull, 2016, Beine et al, 2016). These models are often estimated as log-linear regression models but sometimes as Poisson models to account for zero migration flows between some countries. Where a decision-theoretic foundation is provided for these empirical specifications it is generally a “Random utility model” (Beine et al, 2016), which also serves as foundation for the multinomial logit model making the links to the proposed modelling clearer.

Our results for the desired destination are presented in Table 3. The first column includes all the distance measures but only log GDP per capita, population, and size as destination-country variables. The coefficients are most easily interpreted as log odds ratios. Consider two possible destination countries that are identical in every respect except for one variable which differs between country 1 and 2 by $\log(z_1/z_2)$. Then, if the coefficient on $\log z$ is β , the log odds of choosing country 1 over country 2 will be $\beta \log(z_1/z_2)$. The actual probabilities will depend on how many other countries there are but if these were the only two possible destinations the probability of choosing country 1 would be $e^{\beta \log(z_1/z_2)} / (1 + e^{\beta \log(z_1/z_2)})$. The same interpretation can be adapted to controls that vary linearly across destinations, or to dummy variables.

To give a specific example, the first column of Table 3 has a coefficient on log distance of -0.46, significantly different from zero. This implies that if one country is twice the distance of another, the log odds ratios change by $-0.32 (= -0.46 * \log(2))$ and the probability of choosing the more distant country if these were the only options and they were otherwise identical would be 42 percent. Other measures of distance also have significant impacts on the desired destination: sharing the same language raises the log odds ratio by 1.29, sharing a colonial past by 0.50 and sharing the same religion by 0.47. People who are currently migrants are much more likely to want to return home than migrate elsewhere with an effect on the log odds ratio of 3.11. Freedom of movement is positively related to the probability of naming a specific destination, while contiguity has an unexpected negative sign though this is after controlling for distance. There is evidence of network effects: a one percent higher proportion of migrants from the same country of origin at destination raises the log odds by 0.03.

Our focus of interest is on the effect of destination country income which has a strong positive effect on the desired destination. Doubling GDP per capita at destination (and many GDP differences across countries are much larger than this) increases the log odds by 0.84 ($= 1.22 * \log(2)$) implying that the probability of choosing the richer country if these were the only options and they were otherwise identical would be 70 percent.

The shape of the relationship with GDP per capita is also of interest. For example, Grogger and Hanson (2011) argue that a model with the level of GDP per capita might perform better than a log model and non-monotonicity in origin country income is central to the Zelinsky's hypothesis about emigration. The second column includes a set of dummy variables based on our measure of GDP per capita. The coefficients suggest a monotonic relation between GDP at destination and the attractiveness of the country. The finding of a strong robust monotonic relationship between income and desired destination is in line with studies of actual flows (see, for example, Ortega and Peri, 2013). We keep log GDP per capita as our income variable in later models of the desired destination.

Column 3 includes other destination country variables such as the number of people affected by natural disasters, the number of deaths related to conflicts, and the type of political regime. These variables have the expected sign; people are more likely to want to move to democratic countries and free of conflict and natural disasters. However, the inclusion of these variables has very little impact on the size and significance of the income variable.

One concern with these estimates is that the included destination-country variables are correlated with other unobserved but relevant variables. One way to address some of these concerns is to include destination country-fixed effects – results are reported column 4. This is a much more demanding specification as many of the variables (e.g. population, GDP per capita) vary much more in the cross-section than they do over the relatively short time period in our data set. It is then unsurprising that some of the destination country variables become insignificant when destination country fixed effects are included. However, it is striking that log GDP per capita remains very significant with an even larger coefficient. Doubling the GDP of one destination – keeping all the rest equal - in this case increases the probability of picking it by 75 percent. The increase in the coefficient related to the fixed effects inclusion implies that countries with faster per capita GDP growth become the desired destination for an increasing number of people who want to emigrate. Finally, column 5 adds measures of income inequality at both upper and lower parts of the distribution; the sample size further drops as we do not have inequality data for some of the destinations. Both higher top and bottom inequality have small negative coefficients that are not significantly different from

zero. As the role of inequality appears to be limited, and further restricts the set of available destinations, we will refer to the model in column 4 as our preferred specification for the robustness checks.

2.2 *Robustness*

Table B1 in the Appendix provides several robustness checks on our results. As the US is the most popular destination (Table 2), one might be concerned that results are driven by the characteristics of this country. In column 1 we exclude the US from the set of destinations. Results are very similar to the baseline, with a slightly greater sensitivity to the destination GDP when the US is excluded. In column 2, for each country of origin, we exclude from the destination set the country that receives the greatest number of migrants from that origin. In this case, the role of GDP is smaller, though quite comparable to our baseline model. Column 3 retains only English-speaking destinations. As for the previous robustness checks, the role of GDP is quite similar to our base analysis. In column 4 we exploit another GWP question as a dependent variable. To people who express the desire to emigrate, GWP also asks “Are you planning to move permanently to another country in the next 12 months, or not?” and, to those who respond affirmatively to this question, “To which country are you planning to move in the next 12 months?”. In column 4 we use the answer to this last question as a dependent variable. The role of GDP is in this case is smaller than our baseline estimates. In the last column, we retain only OECD countries as available destinations (Table 2 showed that OECD countries are preferred by 65 percent of the sample). When only OECD destinations are retained, GDP has a much greater role than in our baseline analysis. Doubling the GDP per capita, in this estimate, implies a 84 percent higher probability of picking the country as a desired destination.

Following an approach taken by Grogger and Hanson (2011) and Bertoli and Ruyussen (2018), we also re-run our preferred model in smaller sets of destinations, gradually excluding least-preferred ones. Figure B1 in the Appendix shows the estimated GDP coefficients and that the sensitivity to GDP is stable across groups. We then re-run the analysis excluding one destination at the time¹⁶. Results are shown in Figure B2. All estimated coefficients fall within the confidence interval of the main estimate.

2.3 *Heterogeneity*

In our baseline specification, the only interaction between individual and destination-country variables is a dummy variable for whether someone was born in the destination country; the size and significance of the coefficient on this variable can be interpreted as a desire to return home. All models have individual observation fixed effects, which subsume any individual characteristic, as well as origin country characteristics. This amounts to the assumption that, while these variables might affect the desire to emigrate, they do not affect the desired destination. Another way of putting this is that the model implies that while the number of people from a particular origin country who want to move to a destination varies, the mix of migrants does not. This is a strong assumption to impose on the model.

¹⁶ Due to the time required to estimate each of the preferred estimates, we run this robustness exercise using the model in column 3 of Table 3, therefore excluding destination fixed effects.

One way to investigate these possibilities is to interact individual or origin country characteristics with destination country characteristics. There are a very large number of possibilities and the models become indigestible quite quickly. For this reason, we focus on a few key variables, and we re-estimate our preferred model (column 4 of Table 3) separately for some sub-groups.

A number of papers (e.g. Docquier et al, 2014) have suggested that migration behaviour differs significantly by education so we estimate separate models by level of education. The left-hand side of Figure 2 represents the coefficients for the GDP variable estimated in the three education groups. People with tertiary education degrees are less sensitive to GDP in the destination country. The right-hand side of the graph focuses instead on the coefficients related to distance. People with higher education levels are less sensitive to distance, which is something that is found also for within country actual moves for instance (Langella and Manning, 2019).

Figure 3 reports how the key parameters of the impact of log GDP per capita and distance vary by age group. We find that older people tend to be less sensitive to GDP at destination than younger groups, and less sensitive to distance. Another individual characteristic we explore is household income. We estimate our preferred model by quintiles of per capita household income. Similarly to the age analysis, Figure 4 shows the results for the GDP and distance coefficients. There is no evident difference across income groups in sensitivity to the destination GDP or distance. Finally, we investigate the impact of the level of development in the origin country on the desired destination. We do so by partitioning our sample across country of origin GDP groups and re-estimating our preferred model – corresponding to column 4 of Table 3 – in each of the groups. Figure 5 gives a graphical illustration of the coefficients related to the destination GDP and the distance between two countries. People in middle-income countries seem the most sensitive to GDP and least sensitive to distance, though the differences are not very different from each other. Tables B2 and B3 in the Appendix presents the regression counterparts of Figures 2 to 5 reporting all coefficients.

Overall, these results suggest that the positive impact of destination country income on the desired destination is a very robust conclusion though there is a modest degree of heterogeneity across individual characteristics and the level of development of the country of origin.

2.4 The Self-Selection of Migrants

Borjas (1987) proposed the influential idea that migrants are selected with the less skilled *ceteris paribus* more likely to migrate to countries with low earnings inequality (for evidence on this see, for example, Borjas et al., 2019). To formalize this idea in a simple way, assume that the sensitivity of desired destination to expected log income is β , and that there are three possible income levels one might have: high, Y_H , medium, Y_M , and low Y_L on which we have data. Suppose the probability of getting the high income is α_H and the low income α_L . Then the sensitivity of the migration decision to different levels of income can be written as:

$$\begin{aligned} & \beta \left[\alpha_L \log Y_L + (1 - \alpha_L - \alpha_H) \log Y_M + \alpha_H \log Y_H \right] \\ & = \beta \log Y_M + \beta \alpha_L \log \frac{Y_L}{Y_M} + \beta \alpha_H \log \frac{Y_H}{Y_M} \end{aligned} \quad (4)$$

i.e. the decision can be written as a function of average income, and inequality at the top and bottom of the distribution. The estimated coefficient on the inequality measures depends on the probability of ending up at that point of the distribution. So, if the better-educated are more likely to end up at the top of the income distribution the self-selection model predicts they should have a higher coefficient on high-end inequality than the lower-educated¹⁷. The influence of low-end inequality should be larger for the lower-educated.

We first test this hypothesis by estimating separate models for the desired destination for different education groups using the measures of top-end and bottom-end income inequality used in column 5 of Table 3. The coefficients related to income inequality are illustrated by Figure 6. In line with the findings in Table 3, income inequality does not appear to be relevant for the desired destination choice for any education group. This is not in line with the predictions of the self-selection hypothesis, possibly because migrants may not have very good estimates of how much they could earn in different destination countries.

We also investigate the self-selection hypothesis using data on the returns to different levels of education that are available for OECD countries. We include two controls, the log of the ratio of income of people with primary education over those with secondary education (i.e. minus the return to secondary compared to primary education), and the log of the ratio of income of people with tertiary or higher education over those with secondary education (i.e. the return to tertiary compared to primary education). The results are presented in Table 4. Column 1 estimates a pooled model for all education groups, including our usual control variables but adds the returns to education. The return to secondary education has virtually no impact on the destination choice, while the return to higher education is negatively related to the probability of picking the specific destination. Column 2 also includes destination fixed effects, as in our preferred model. The sign of the return to higher education is now positive and significantly different from zero.

The self-selection model suggests that the impact of the returns should be different for different education groups. For this reason, we re-estimate both the OECD models – without and with destination fixed effects - by the education level of the respondent. The coefficients of interest are illustrated in Figure 7, while columns 3 to 5 in Table 4 report all estimated coefficients for the destination fixed effects model only. In both specifications and for all education groups, the impact of the return to secondary education is small and imprecisely estimated (Figure 7, Panel B). For all education groups (and in line with the pooled model), the sign of the tertiary to secondary education relative income flips in sign when destination fixed effects are included. But, in both cases, the pattern of the results is not in line with the predictions of the self-selection model. The low educated appear, if anything, slightly more responsive to the returns to higher education (Panel C). Panel A also shows the coefficients for the GDP variable. There is not any significant heterogeneity across education groups, in this case.

¹⁷ Note that this argument just requires that α_H is higher for the better-educated not that it is necessarily high in an absolute sense.

3. The desire to migrate

In this section we analyse the desire to migrate using model (2). We take a two-step approach. In the first step we use the following specification for the utility from remaining in the origin country:

$$V_{ioot} = \alpha_1 x_{it} + \theta_{ot} \quad (5)$$

where θ_{ot} is an origin country-time fixed effect and estimate a logit model for the desire to migrate. In this step, we estimate the impact of individual characteristics on the desire to migrate. The country of origin characteristics will be subsumed within the fixed effect, the estimate of which can be interpreted as the logs odds of wanting to move for someone with the individual characteristics all equal to zero which we will refer to as the base characteristics. In the second step we regress the estimated country-year fixed effects on country-year variables.

Our primary interest is to investigate how income shapes the desire to migrate with a particular focus on Zelinsky's (1971) hypothesis of a hump-shaped relation between income and migration. This hypothesis is usually expressed as a relationship at the country level but, with our data, we can also investigate the impact of individual income¹⁸.

Figure 8 plots the share of people who want to migrate from the country against GDP per capita. There is a lot of heterogeneity across countries; the desire to migrate varies from 3% in Indonesia to 63% in Sierra Leone. From this graph, there seems to be a weak but negative, almost linear, relation between GDP in the country of origin and the desire to emigrate, in contrast to the Zelinsky's hypothesis but in line with what Benček and Schneideheinz (2020) find using panel data. Dao et al (2018) argue the relationship varies by education so Figure B3 in the Appendix shows the correlation between demand for emigration and GDP per capita by education level. The relationship seems to be negative for all education groups, with similar monotonicity. Clemens and Mendola (2020) argue that it is the GWP questions that ask about plans and preparation to emigrate that are more informative about likely migration given real-world constraints; Figure B4 presents the relationship between the responses to these questions and GDP per capita; Zelinsky's hypothesis does not emerge strongly from these figures. However, these relationships do not control for other relevant factors, so we now turn to the estimates.

First-Step Estimates

Table 5 presents the results for the first step. Here, the key variable we are interested in is annual equivalised household income, measured in 2010 dollars. Income and household size are available in GWP only since 2009, so for this part of the analysis we have to discard years between 2006 and 2008. In column 1 we present the results for a very simple model where we include country-year fixed effects and income only, in a logarithmic form. In this specification, we find that, within a given country-year, people from richer households are significantly more likely to want to emigrate. Zelinsky's hypothesis predicts a non-monotonic relationship at the aggregate level, which may suggest that a similar functional form could apply to the individual relation too. To test whether that is the case, column 2 adds a squared term for the log of income, centred at \$8,000, which is a value in the range of what is often

¹⁸ Dustmann and Okatenko (2014) do something similar but study a question that includes the desire to migrate internally and a measure of income "based on data on household assets (household ownership of durable consumer goods and housing quality), and questions referring to sufficiency of current income" because, for their years, actual household income was not available. Clemens and Mendola (2020) estimate the income elasticity of emigration at the household level, with a focus on predicted actual migration in developing countries rather than potential migration. They find the elasticity to be positive in their setting.

argued in the literature to be the peak of the hump-shaped relation (see Benček and Schneideheinz, 2020, for a review of the literature). When this functional form is considered, the level becomes non-significant, while the square term is negative, implying that the desire to migrate is non-monotonic peaking at \$8,000. These estimates are in line with the Zelinsky's hypothesis at individual level.

The specification without any regressors other than income can be thought of as closest to the way in which the Zelinsky's hypothesis is normally described. However, as emphasized in the introduction, development has many dimensions with different effects on the desire to emigrate and it is important to understand these. Though this paper is primarily about the impact of income, it is important to control for other relevant factors. In columns 3 and 4 we re-estimate the models of columns 1 and 2 but now adding additional covariates; dummy variables indicating the level of education, whether born abroad, gender, a set of dummy variables for age, household size, number of kids under 15 in the household. The characteristics are scaled so that the country-year fixed effect can be interpreted as desire to migrate for a man, born in the country, aged 45 to 64 with primary or lower education, non-married, in a household of 4, with 2 kids below the age of 15 living in the same household and with equalised household annual income of \$8,000. In line with previous studies, we find that the young, the more educated, and foreign born are more likely to want to migrate. People who are married and who have a larger number of kids in the households are less likely to want to move away. The coefficient on log household income is insignificantly different from zero when only a linear term is included (column 3). The addition of a quadratic term in column 4 has a significantly negative quadratic term but also a significantly negative linear term meaning that the desire to migrate is decreasing at a household income of \$8,000. The estimates in column 4 imply a hump-shaped relationship in line with the Zelinsky's hypothesis but now peaking at an income of \$1,800 i.e. much lower, meaning that most of the sample is in the region where the desire to migrate is a decreasing function of household income¹⁹. The change in the estimated impact of household income is largely because of the role of education which is highly correlated with income. The estimates suggest that those with higher levels of education are more likely to want to emigrate; this is an important channel by which economic development may increase and not decrease the desire to emigrate.

We next investigate whether the impact of household income varies with the average level of income in a country as it is possible that relative income shapes the desire to migrate. The effect of the average level of income itself will be subsumed within the fixed effects but we can estimate the interaction between household and country-level income. A convenient way to do this is to include the square in the deviation of household income from the country level average income i.e. the following version of model (5):

$$V_{iot} = \beta_1 \log Y_{it} + \beta_2 (\log Y_{it}/8000)^2 + \beta_3 (\log Y_{it}/\bar{Y}_{ot})^2 + \gamma x_{it} + \theta_{ot} \quad (6)$$

where Y_{it} is the per capita household income, and \bar{Y}_{ot} is the average per capita household income in a given country and year. The results of this specification are reported in column 5. The additional term is significant with a positive sign. One feature of the estimates in column 5 is that the two squared terms appear to have virtually identical coefficients of different sign which means the squared terms in household income would cancel out leaving only an interaction between household income and country average income. This model is estimated in column

¹⁹ The median for the household income per capita in our sample is approximately \$2,800.

6. The linear and interaction terms are significant²⁰. The estimates imply that higher household income is associated with an increased demand to emigrate for countries where average household income is below approximately \$2,200²¹ - but decreasing above that point. The standard error of this estimate (computed using the delta method) is \$819. The finding that the relationship between household income and the desire to emigrate is mediated by the level of aggregate income is in line with Clemens and Mendola (2020).

Income may not be the only aspect of the quality of life that affects the desire to emigrate. In column 7 we add the measures of current and expected (in 5 years) life satisfaction, and a variable that measures the individual satisfaction with the freedom in the country of origin (a detailed description of the GWP questions is in Appendix A.2). Higher life satisfaction and satisfaction with freedom are significantly associated with a lower desire to emigrate. The inclusion of these variables the estimated impact of income. The estimates in column 7 now imply that higher household income is associated with an increased demand to emigrate for countries where the average income is below \$8,400 – with a standard error of \$4,510 - a much higher turning point than in the estimates of column 6, though less precisely estimated because the interaction term (which becomes the denominator when computing the turning point) is small relative to its standard error.

There might be heterogeneity in the impacts, so columns 1 to 3 of Table B4 in the Appendix estimates the model by education group. People with primary and secondary education have a similar impact of income, and similar to the one estimated for the overall sample. But for those with tertiary education there is very little relation between income and the desire to emigrate.

Columns 4 and 5 of Table B4 in the Appendix report estimates of the same models replacing the migration desire question with the migration planning and preparation questions. Column 4 estimates the model for the migration planning question i.e. those who report “planning to move permanently to another country in the next 12 months”. Column 5 estimates the model for those who report taking active preparation for a move. In both cases the results are obtained conditioning on the structure of the questionnaire – i.e. the planning question is only asked to people who desire to migrate, while the preparation question only to people who are planning to migrate. In both cases the role of income has the same direction as in the model for the responses to the migration desire question but the coefficient on the interaction term not significantly different from zero making the impact of income positive for all sensible values of average income in the country, consistent with Clemens and Mendola (2020). This suggests that conditional on desiring to migrate, richer people in all countries tend to take more ‘factual’ actions towards migration. This could be because they are more likely to have the resources needed to turn a desire to migrate into action, but also because they are likely to have more options to migrate to their desired destination.

Columns 6 and 7 of Table B4 take a different approach analysing unconditional responses to the plan and preparation questions i.e. including those who report no desire to emigrate as ‘zeroes’. The results for planning to move illustrate also in this case a non-monotonic relation with household income, the effect of household income is positive up until \$26,000 and

²⁰ We also estimated a model including both $(\log Y_{it}/8000)^2$ and the interaction term. The coefficient related to the squared term is not significant in any of the relevant specifications, so we present only specifications with the level of income and the interaction with average income.

²¹ The turning point – here and in the following paragraphs - is calculated before applying the approximations used in the tables we have in the paper, so calculations from the Tables displayed in this paper may not directly give the exact turning point estimate to the reader.

negative after that point but has a standard error of \$36,218 so is not meaningful. For preparation question the estimated relation is positive for any plausible range for the country average household income.

Overall, the first-step estimates suggest a complicated relationship between measures of welfare at the individual level and the desire to migrate. Higher education always seems to be associated with a higher desire to migrate, but higher life satisfaction both currently and expected in the future reduces the desire to emigrate. Higher household income has a positive effect in poorer countries and a negative effect in richer countries. Though it should be noted that the impact of income on the desire to migrate is always much smaller than the estimated impact of destination country income in the desired destination models.

Second-Step Estimates

However, all these estimates include country-year fixed effects and we now move to the second step, the analysis of these. We use the fixed effects estimated from the model of column 6 of Table 5. These fixed effects can be interpreted as the log odds of wanting to emigrate relative to wanting to stay for someone with the base characteristics in Table 5. We regress the country-year fixed effects on a variety of origin-country level variables. In line with (2) we also include the inclusive value from the desired destination model (computed using our preferred specification for the destination model, column 4 of Table 3)²². The inclusive value can be interpreted as a measure of how attractive the available destinations are to a migrant from the source country. It would be therefore expected to be positively related to the desire to migrate. For example, given that we find that destination country income has a big effect on the desired destination and that people are less likely to want to move to more distant countries, the inclusive value will be higher for migrants in source countries that are closer to high-income countries.

Column 1 of Table 6 includes only the log of origin country GDP per capita and time effects. There is a significant negative coefficient implying that those in richer countries are less likely to want to emigrate. However, this specification cannot investigate the Zelinsky ‘hump-shape’ hypothesis that implies a non-monotonic relationship. To investigate this, we include a linear spline in log GDP per capita with a knot at \$8,000²³; this specification is reported in column 2. Now we find a significant negative relationship for the higher income countries and an insignificant relationship for poorer countries.

Column 3 of Table 6 adds a range of other origin country variables, for instance population and some push factors as the deaths from conflicts, the proportion of people affected by natural disasters and a measure of the institutions in the country. We also include the inclusive value, a measure of the utility from migrating from a given destination estimated by our destination model. The impact of origin country income is similar in nature to that reported in Column 2. The inclusive value has the expected positive sign, implying that those in countries with closer connections to attractive destinations are more likely to want to emigrate. The coefficient on the inclusive value can be usefully interpreted in the following way. Imagine that the log income in all possible destination countries rises 0.1 i.e. a 10 percent rise. Because log income has a coefficient of 1.57 in column (4) of Table 3, this would raise the inclusive value by 0.157. The coefficient on the inclusive value of 0.42 in

²² This can be estimated most simply as the fixed effect in the Poisson regression model for desired destination.

²³ We prefer a linear spline to a quadratic as a quadratic forces a symmetry around the turning point that may not be appropriate.

column 3 of Table 6, for example, then implies that the log odds for wanting to emigrate would rise by $0.157 \times 0.42 = 0.07$. Turning to other variables, conflicts at origin are, as expected, positively related with the desire to migrate, but the other push factors are rather insignificant. People from larger countries have lower desire to emigrate.

Finally, column 4 includes country fixed effects to control for unobserved time-invariant characteristics that may affect the desire to emigrate. We now find negative impacts of origin country income on the desire to migrate for both richer and poorer countries though the impact of income is imprecisely estimated for poorer countries.

Care needs to be used when providing an overall assessment of the role of average origin country income on the desire to migrate, as income terms, both individual and aggregate, also appear in our preferred specification in Table 5 (column 6). It probably makes most sense to evaluate individual income at the average level of income in the country in which case there is a small negative impact of aggregate income on the desire to migrate from Table 5 which would produce a hump-shape. But the effect is very small so that the implied impact of origin country income on the desire to migrate is estimated to be negative for all relevant income levels.

Tables B5 and B6 in the appendix replicate the analysis for the plan and the preparation to migrate, respectively.

Overall, we find little robust evidence for the hump-shape of the Zelinsky's hypothesis, but we do find what could be termed a weak version of the hypothesis, that there is only a weak relationship between income in the origin country and desire to emigrate. This contrasts with the strong impact of income in destination countries.

There are several reasons why evidence for the Zelinsky's hypothesis might be stronger in actual than desired migration flows in the GWP data (though not all studies find evidence for it in actual flows – see, for example, Ortega and Peri, 2013; Benček and Schneideheinz, 2020). It could be that people in middle-income countries are closer to high-income countries which means that the 'pull' factors are stronger for them. Or it could be that the destination countries policies to restrict migration disproportionately reduces immigration from low-income countries because it tends to be more restrictive towards lower-skilled migration (Ortega and Peri, 2013; Clemens et al., 2019; Bertoli and Stillman, 2019) which tend to make it harder to emigrate from low-income countries. Alternatively, it could be that many potential migrants are liquidity constrained which is not detected in the GWP desired emigration question (though Auer et al, 2018, show a correlation between desire to emigrate and actual emigration and Böhme et al., 2020, show strong overlap between their measure of migration intentions based on Google searches and the GWP measure) but is reflected in the migration planning and preparation questions. But it could be that the GWP data is not appropriate, that the question analysed only relates to a vague desire to migrate and need not translate into action. To investigate this, we turn to analysis of applications to the US Diversity Visa which represent actual applications to migrate.

4. Evidence from US Diversity Visa Applications

The Diversity Immigrant Visa Program (DV) is a lottery programme run by the United States Government for issuing Green Cards which give permanent residency. The current DV programme was established by the Immigration Act of 1990 with an aim to diversify the

immigrant population in the United States. Every year the US allocates 55,000 green cards using a lottery. To be eligible to apply²⁴ applicants need to be born in one of the eligible countries (though may also apply through their spouses' or one of their parents' country of birth), have completed at least high school level education or two years of work experience within the past five years in an occupation that requires at least two years of training or experience to perform. It is not open to citizens of countries which sent more than 50,000 migrants in the previous 5 years²⁵. The eligible applicant can add the spouse and children as derivative applicants. For distributing the visas across different countries, countries are grouped in six geographical regions²⁶. Each year, U.S. Citizenship and Immigration Services (USCIS) uses a formula based on recent migration flows to determine the allocation of visas to each region. The formula gives fewer visas to regions that sent many migrants in the past. Additionally, no single country within a given region may receive more than 7 percent of the available visas in a single year. Applications are then selected randomly. The application is free (though requires internet access) so that most people who are interested in moving to the US could apply. Applications to the DV are interesting because they provide evidence on the numbers of people who would like to move to the US and have the resources to do so if they win the lottery. In other words, it reflects people who have both the inclination and opportunity to move but without most of the restrictions on eligibility that are associated with other visas. So, one might expect that applications to the DV visa are closer to reflecting desired migration flows after taking account of any liquidity constraints that potential migrants may face.

Figure 9 shows over time trends in the number of main applicants to the DV. The number of applications is much larger than the number of available visas with approximately 15 million main applicants in 2020. We use data on the number of main applications from 2007 until 2020, which corresponds to the period when applications became online (prior to this, applications were by mail). For a longer period, 1995-2018 we also use data on the number of applicants selected by country; because visa allocation is by lottery this should be related to the number of applications. The selected applicant data has the advantage that it covers a longer period but the disadvantage that it is noisier because the probability of being selected is low.

The first way we can use the DV data is as a validation for the GWP data. Figure 10 plots the log of the fraction of the population who apply to the DV against the log of the fraction of the population in the GWP data who say they would like to move to the US²⁷. The regression line between the two variables has a coefficient of 0.61 with a standard error of 0.12. We also run the same regression for the planning to move to the US, obtaining a lower correlation (0.21 with standard error of 0.11), and with the preparation to move to the US, where the correlation is similar (coefficient of 0.16 and standard error of 0.13).

²⁴ *Instructions for the 2022 Diversity Immigrant Visa Program (DV-2022)*, U.S. Department of State. (https://travel.state.gov/content/dam/visas/Diversity-Visa/DV-Instructions-Translations/DV-2022-Instructions-Translations/DV-2022-Instructions-and-FAQs_English.pdf)

²⁵ In 2020 the ineligible countries were Bangladesh, Brazil, Canada, China (mainland and Hong Kong), Colombia, Dominican Republic, El Salvador, Guatemala, Haiti, Honduras, India, Jamaica, Mexico, Nigeria, Pakistan, Philippines, South Korea, Vietnam, the United Kingdom (except Northern Ireland) and its dependent territories.

²⁶ The six regions are Europe; Africa; Asia; Oceania; North America (excluding Mexico); and South America, Mexico, Central America, and the Caribbean.

²⁷ A log scale is used to make the relationship clearer.

But we can also examine the factors that determine applications to the DV lottery. We use a Poisson model for the number of applications from origin country o at time t as a count model so we can include zeroes for eligible countries. As regressors we use country-level variables used earlier in the analysis. We include a set of measures of geographical and cultural distance from the US²⁸ and whether the country of origin shares the same language of religion with the US. We also include the stock of migrants from a given country of origin to the US standardised by dividing by the population in the country of origin. We include the number of people affected by natural disaster, the number of deaths from conflicts, and an indicator for the political institutions in the country. We also include the log adult population in the country of origin as larger countries are likely to mechanically have more applications. We also include controls for the age structure²⁹ of the population as we know age affects the desire to migrate and a control for the proportion of people with at least an upper secondary education degree³⁰ as this is an eligibility requirement and may also affect the desire to by migrate. The set of controls also include GDP per capita at the country of origin level, which is our main variable of interest. All models also include region by year fixed effects to capture the fact that the lottery design means that the probability of success will vary by region-year and this may affect applications.

Figure 11 plots the applications per capita against per capita GDP. The figure shows a weak negative relationship with little evidence of the hump-shape predicted by Zelinsky's hypothesis. However, this does not control for other relevant factors; for that we turn to regressions.

Table 7 presents the results. In the first column we estimate a model including only our main variable of interest, the (log of) per capita GDP in 2010 PPP US\$, as well as region by year fixed effects. The significant negative coefficient implies that higher income reduces the number of applications to the DV programme. To test the monotonicity of the relation, the second column includes a linear spline with a knot at \$8,000. We find a significantly negative impact of income for richer countries and a non-significant impact in poorer countries. We do not find a significant positive impact of income in poorer countries as the Zelinsky's hypothesis predicts. In column 3 we add in other origin country control variables. The estimated impacts of income are more negative in both richer and poorer countries. Measures of distance are significant, as well as measures of the migrant stock i.e. network effects seem to be important. The coefficient on log population is greater than one suggesting higher per capita application rates in bigger countries. In the final column we also include country of origin fixed effects; this is a demanding specification as we have a relatively short period and many of the control variables become insignificant. Here we do obtain a positive coefficient on origin country income in poorer countries, but it is not significantly different from zero. The negative effect of income in richer countries is now also insignificant.

One problem with this final specification is that the short time means that there is little variation in the data once country fixed effects are included. To investigate this further, Table 8 reports results using the number of selected applicants for a longer period, 1995-2018. Column 1 includes only the spline in log income as well as region-year fixed effects. There is a significant negative impact of income in richer countries but no relationship for

²⁸ This, for every country of origin, is the minimum between the distance from Los Angeles and the distance from New York. As for the distance measure in the other specifications in this paper, the distance is measured from the most populated city in every country.

²⁹ Source: UN data.

³⁰ Source: World Bank Dataset.

poorer countries. When we include other origin-country variables (column 2) we obtain similar results though the impact of income is more negative. But when country fixed effects are also included (column 3) there is a significant negative effect of income in both poorer and richer countries though stronger in richer countries.

Overall, the DV data confirms the findings of the GWP data that the evidence for the Zelinsky's hump-shape is quite weak; there is little evidence for the upward-sloping part of the hump-shape and the estimated impact varies with specification. The relationship between income and applications does seem stronger for richer than poorer countries, which implies that development in many poorer origin countries is unlikely to alleviate migratory pressures to any great extent.

5. Conclusions

This paper studies the impact of both aggregate and individual income on the desire to emigrate and the desired destination using survey data from the Gallup World Poll and administrative aggregate data from the United States Diversity Visa Program.

We find a strong monotonic impact of GDP per capita on the desired destination of potential migrants. Migrants overwhelmingly want to move to high-income countries. However, we find little evidence for the self-selection of migrants being important; we do not find, for example, that highly educated migrants are particularly attracted to countries with a high return to education.

Income in the origin country has a more complicated relationship with the desire to migrate. At the individual level we find that higher household income has a positive effect in poorer countries and a negative effect in richer countries. At the aggregate level our evidence from both the GWP and the DV data suggests that, if anything, higher GDP per capita reduces the desire to emigrate though the effect is stronger in richer countries. However, we find that the impact of source country income in influencing the desire to migrate is weaker than the impact of destination country income so that the symmetry often used in Roy models does not appear a good description of the data.

Our findings also shed some light on Zelinsky's 'migration transition' that emigration first rises with economic development before falling. We do not find strong evidence for the upward-sloping part 'hump shape' though we do find that the relationship between income and the desire to emigrate is weaker in poorer origin countries. Both the GWP and DV data suggest a big gap between the numbers of people who would like to migrate and the numbers who are able to do so and the evidence presented here suggests that it may take many decades of economic development in source countries to reduce the gap substantially.

However, this paper has focused on the impact of income on the desire to migrate and development has many dimensions of which income may only be one. We have also uncovered evidence that higher education always seems to be associated with a higher desire to migrate while higher life satisfaction reduces the desire to emigrate. It may be that these channels are more important than income in determining the desire to emigrate, and this deserves further investigation.

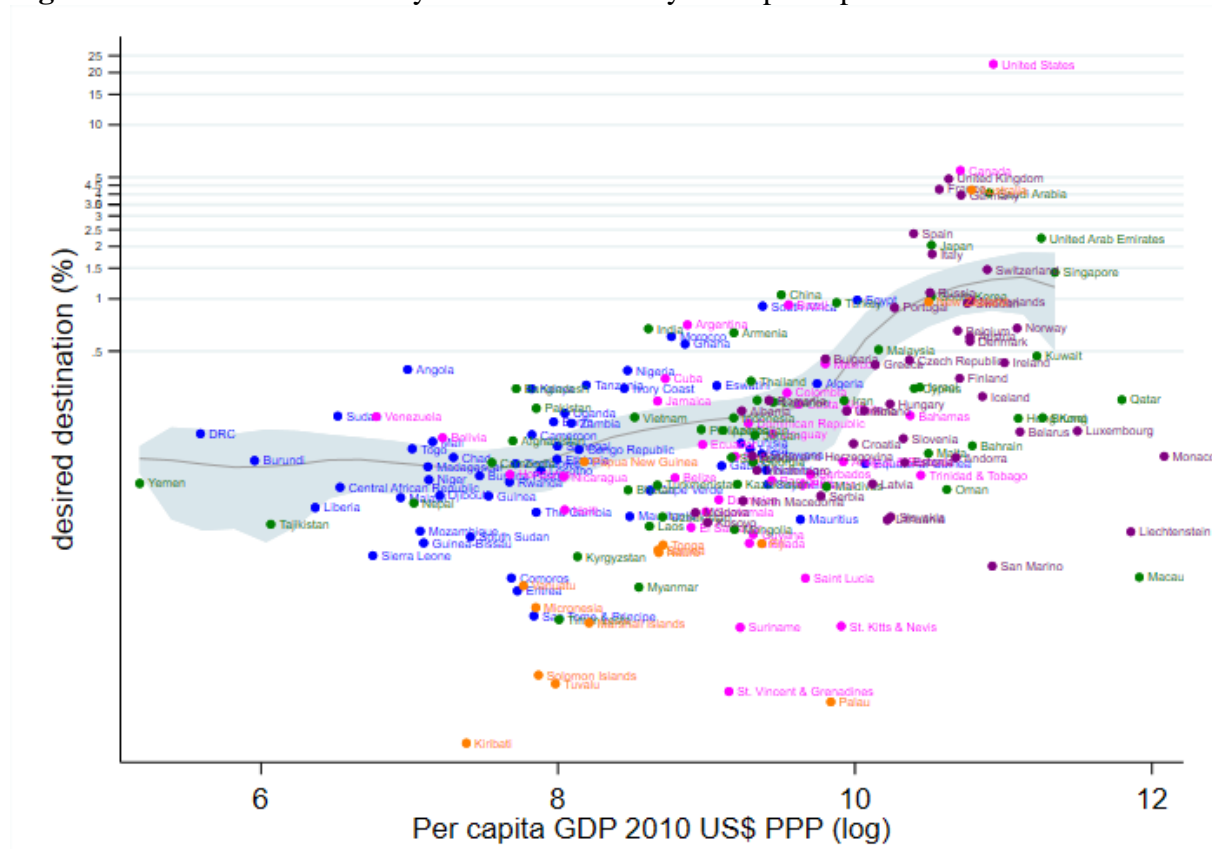
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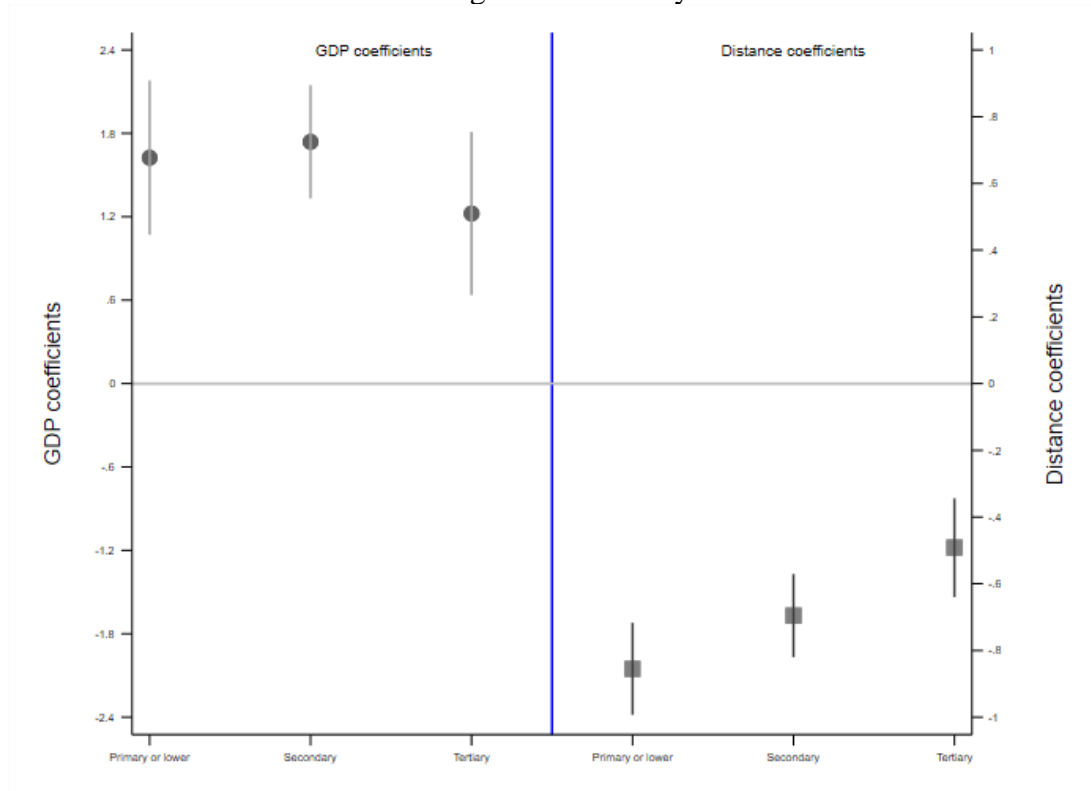
Figures and Tables

Figure 1. Desired destination by destination country GDP per capita



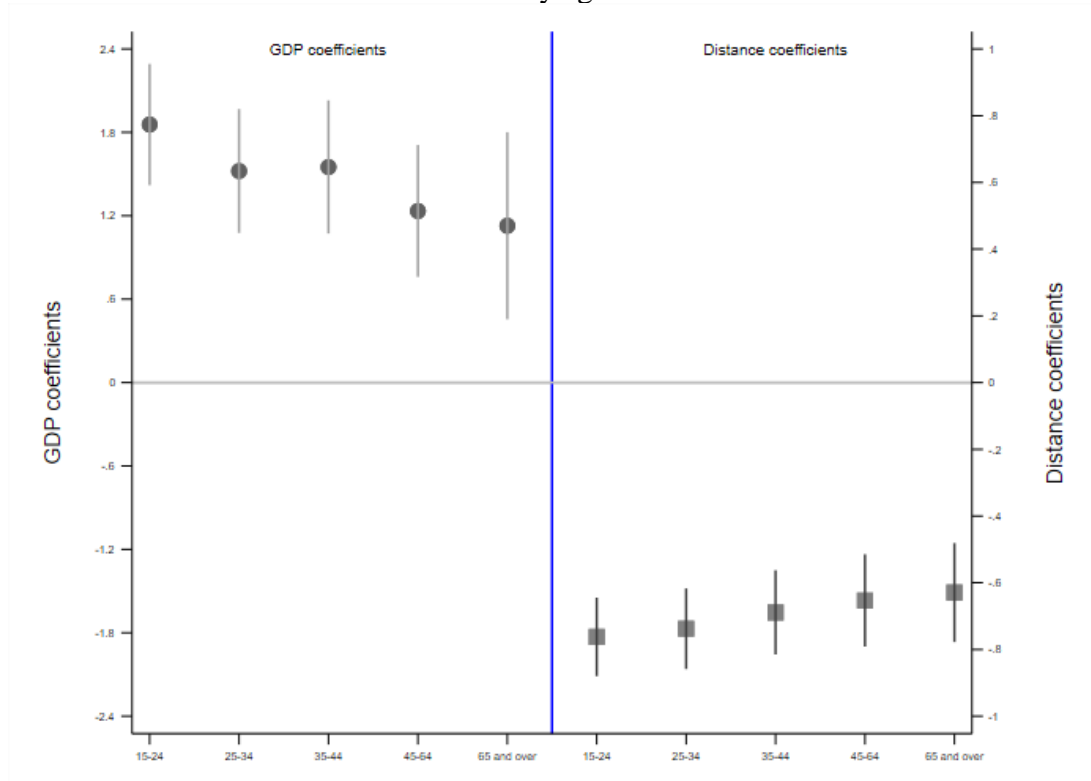
Notes: Source, Gallup data and World Bank data. Y axis on a log scale. This graph excludes countries in our set of choices that are never named by GWP interviewees, so it represents 193 countries in total. The y-axis is the fraction of people who want to migrate to a specific destination over the total number of people who want to migrate in GWP. The share is calculated weighting by the country of origin population and using sample weights. Averages for both variables are calculated on years 2006-2019. We fit a local mean smoothing and plot 95 percent confidence intervals.

Figure 2. Coefficients estimated for the global models by level of education



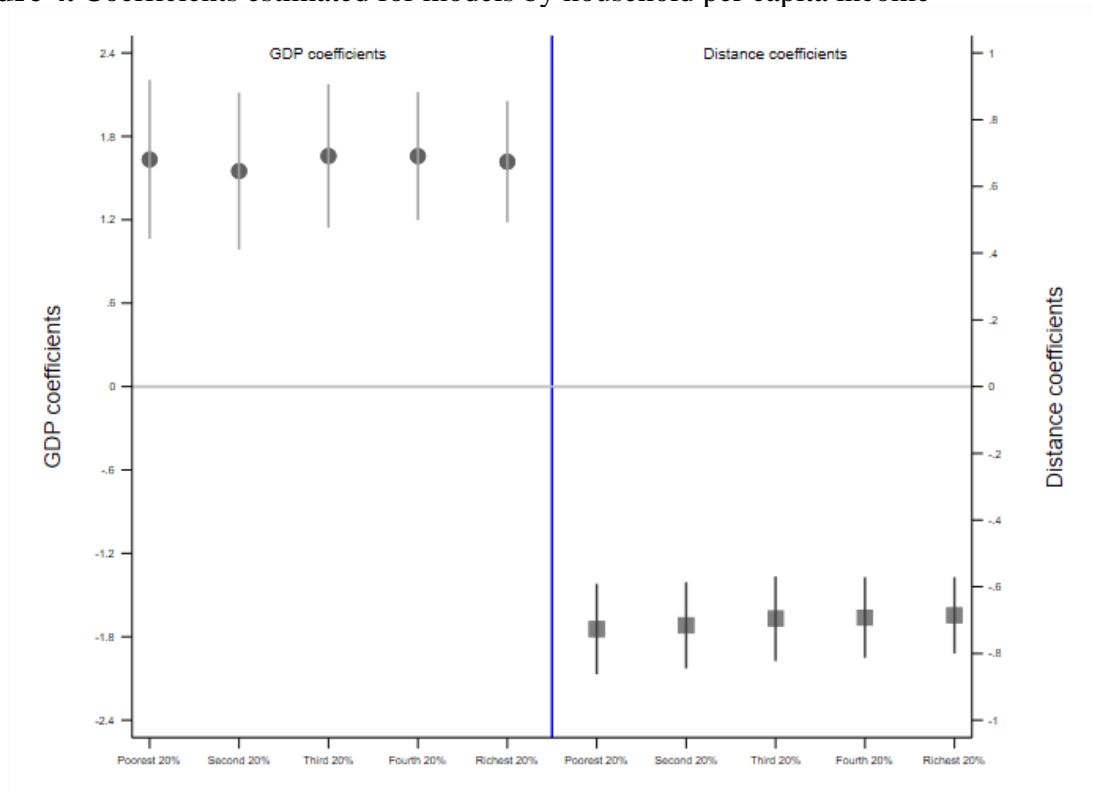
Notes: Each dot within a section corresponds to separate models. Each estimated model corresponds to the model in column 4 of Table 3, estimated for different groups of individuals. Across sections, dots with the same labels are from the same estimated model. 99 percent confidence intervals.

Figure 3. Coefficients estimated for models by age



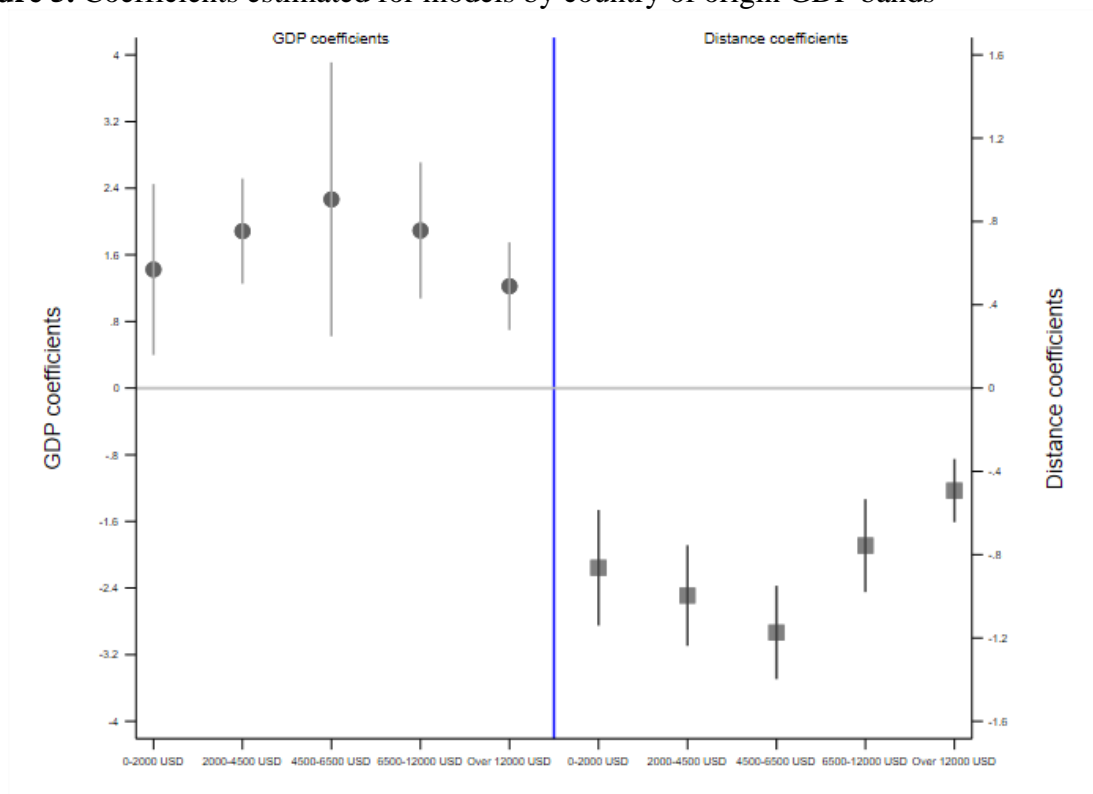
Notes: Each dot within a section corresponds to separate models. Each estimated model corresponds to the model in column 4 of Table 3, estimated for different groups of individuals. Across sections, dots with the same labels are from the same estimated model. 99 percent confidence intervals.

Figure 4. Coefficients estimated for models by household per capita income



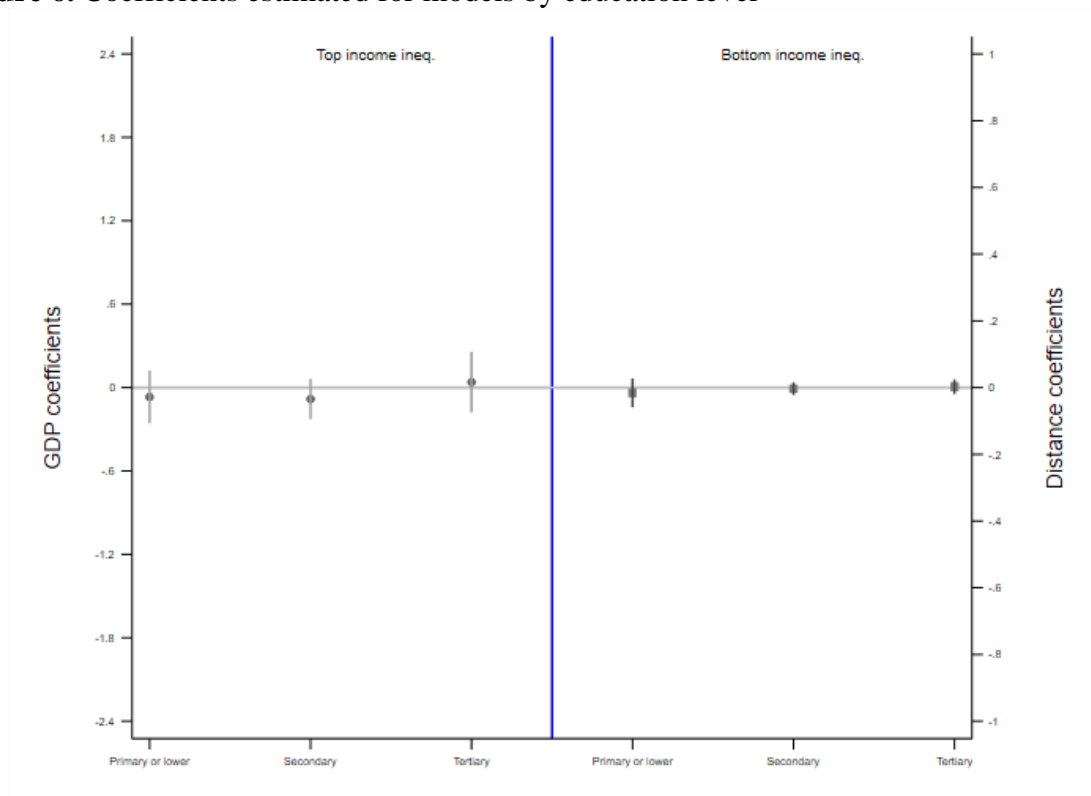
Notes: Each dot within a section corresponds to separate models. Each estimated model corresponds to the model in column 4 of Table 3, estimated for different groups of individuals. Across sections, dots with the same labels are from the same estimated model. 99 percent confidence intervals.

Figure 5. Coefficients estimated for models by country of origin GDP bands



Notes: Each dot within a section corresponds to separate models. Each estimated model corresponds to the model in column 4 of Table 3, estimated for different groups of individuals. Across sections, dots with the same labels are from the same estimated model. 99 percent confidence intervals.

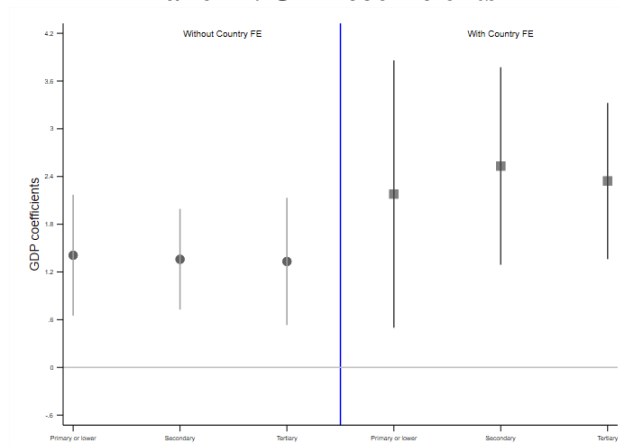
Figure 6. Coefficients estimated for models by education level



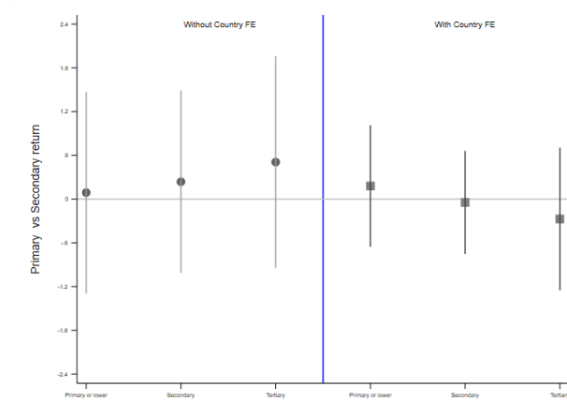
Notes: Each dot within a section corresponds to separate models. Each estimated model corresponds to the model in column 5 of Table 3, estimated for different groups of individuals. Across sections, dots with the same labels are from the same estimated model. 99 percent confidence intervals.

Figure 7. Coefficients estimated for models by education level of the respondent. OECD models

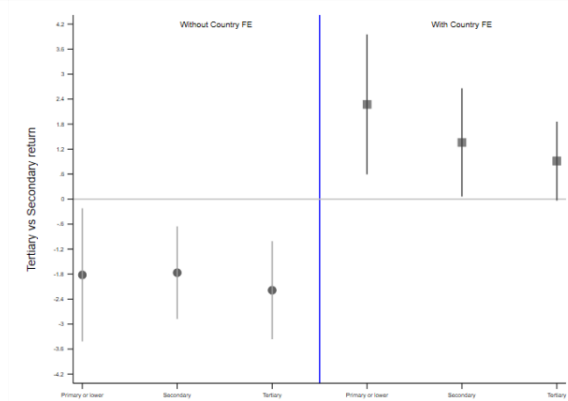
Panel A. GDP coefficients



Panel B. Low education relative income

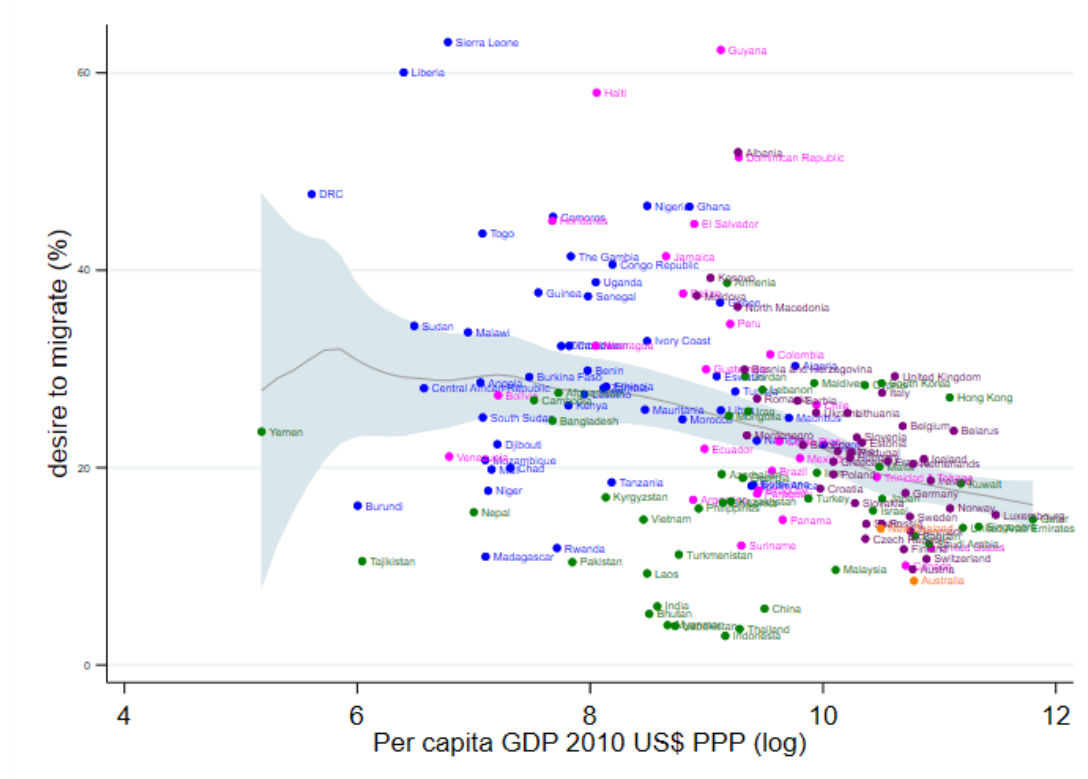


Panel C. High education relative income



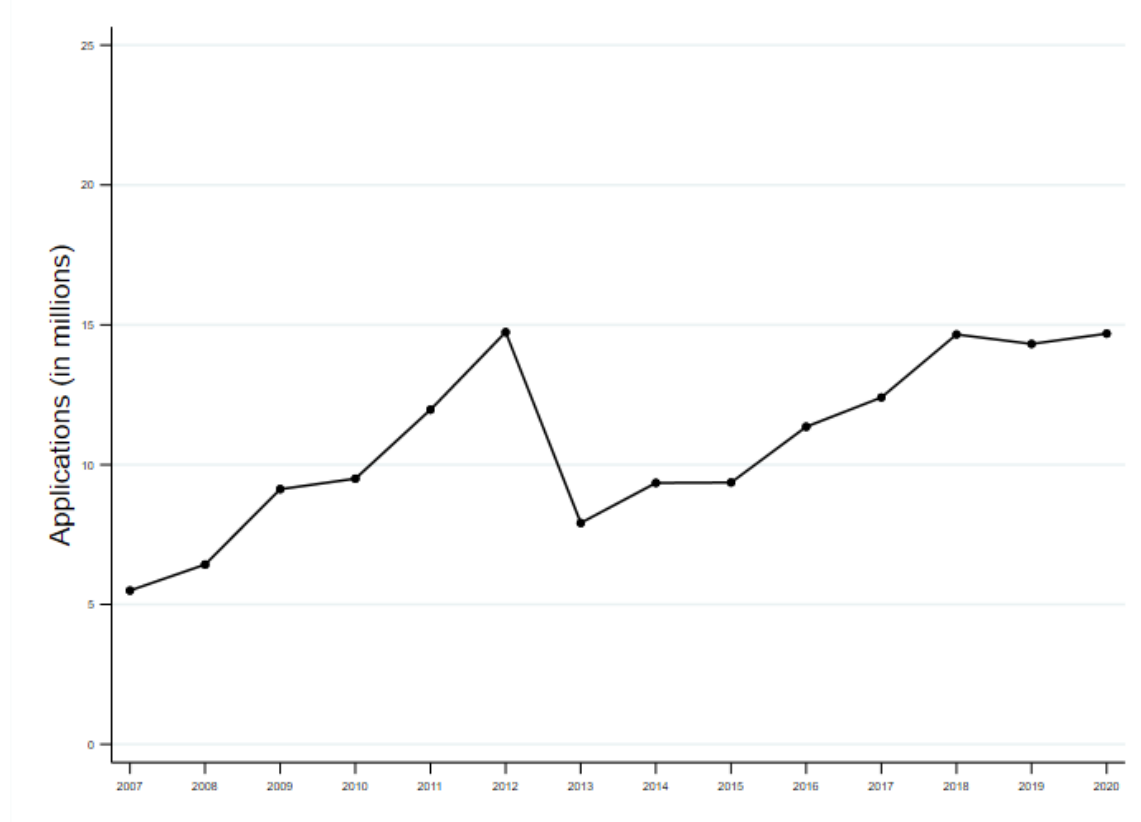
Notes: Each dot within a section corresponds to separate models. Across sections, dots with the same labels are from the same estimated model. 99 percent confidence intervals.

Figure 8. Percentage of people who desire to migrate by origin country per capita GDP



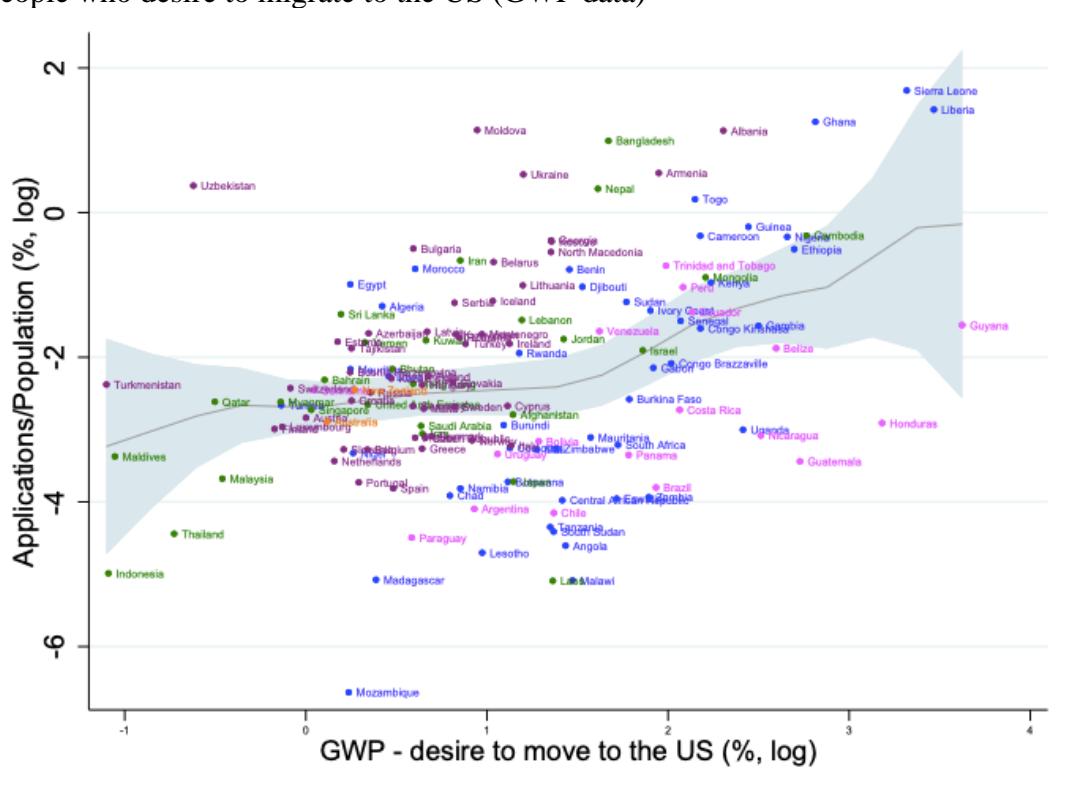
Notes: Source, Gallup and World Bank data. The y-axis is the fraction of people who want to migrate over the total respondents in the country. The share is calculated weighting by the country of origin population and using sample weights. Averages for both variables are calculated on the 2006-2019 time period. We fit a local mean smoothing and plot 95 percent confidence intervals.

Figure 9. Trends in US Diversity Visa Program applications



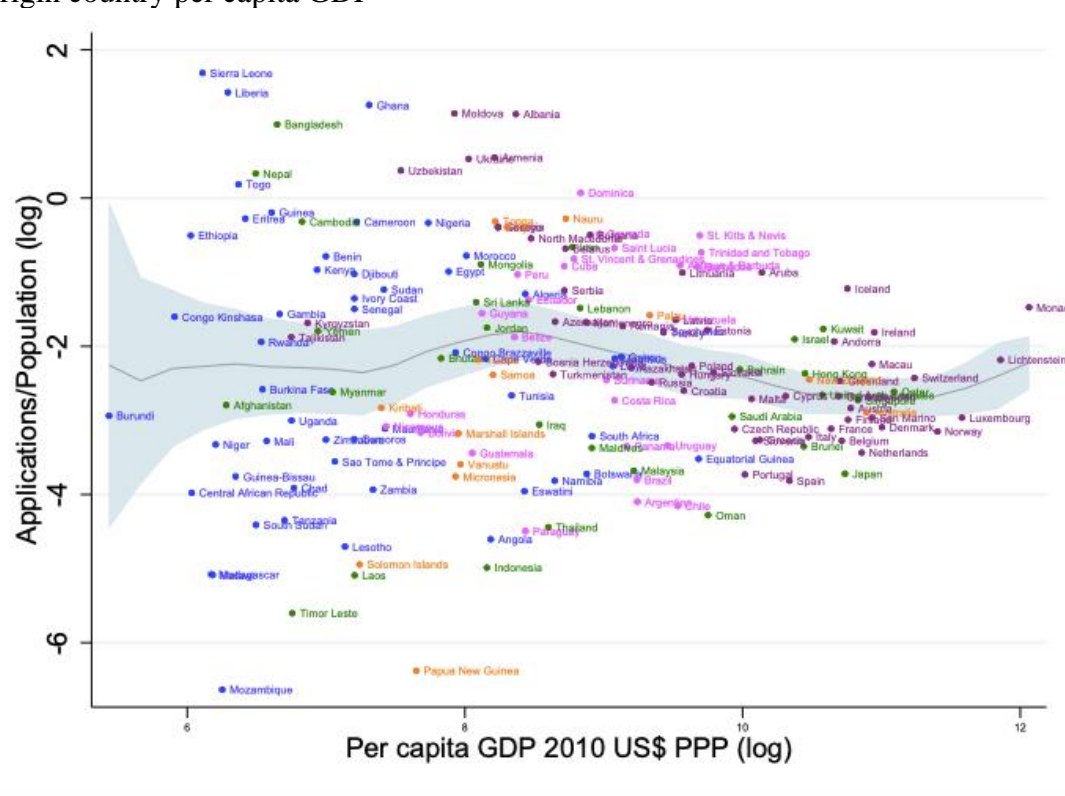
Notes: Source, US Diversity Visa data.

Figure 10. Percentage of applications to the US Diversity Visa Program (over population) by people who desire to migrate to the US (GWP data)



Notes: Source, US Diversity Visa and World Bank data. We fit a local mean smoothing and plot 95 percent confidence intervals.

Figure 11. Percentage of applications to the US Diversity Visa Program (over population) by origin country per capita GDP



Notes: Source, US Diversity Visa and World Bank data. We fit a local mean smoothing and plot 95 percent confidence intervals.

Table 1. Descriptive statistics by migration desire

	Would like to emigrate	Would not like to emigrate
<i>Demographics:</i>		
Women	0.49 (0.50)	0.55 (0.50)
Age	33.74 (14.32)	43.04 (17.79)
Elementary education	0.28 (0.45)	0.35 (0.48)
Secondary non tertiary education	0.56 (0.50)	0.50 (0.50)
Tertiary education	0.16 (0.37)	0.15 (0.36)
Born abroad	0.06 (0.24)	0.05 (0.22)
Number of kids	1.72 (2.60)	1.53 (2.54)
Married	0.41 (0.49)	0.56 (0.50)
Obs.	343,020	1,217,180
<i>Income and household (only since 2009)</i>		
Annual hhld income per capita (2010 int.l \$)	5930.6 (49227.8)	7656.6 (44800.7)
Household size	4.56 (2.83)	4.19 (2.71)
Obs.	296,075	1,074,300
<i>Satisfaction:</i>		
Life satisfaction today (0-10 scale)	5.19 (2.37)	5.56 (2.29)
Expected Life satisfaction in 5 years (0-10 scale)	6.81 (2.55)	6.75 (2.39)
Satisfied with freedom in the country	0.66 (0.47)	0.77 (0.42)
Obs.	262,682	915,784
<i>Other migration questions:</i>		
Migrate within 12 months:	0.15 (0.35)	-
Obs.	166,048	
Preparation to migrate:	0.37 (0.48)	-
Obs.	24,997	

Notes: Source, Gallup data.

Table 2. Most desired countries

	Country	No. countries	% DtM here	Average GDP per capita in 2010 USD
1	United States		22.38	51296
2	Canada		5.48	49348
3	United Kingdom		4.90	41472
4	France		4.26	41989
5	Australia		4.23	53952
6	Saudi Arabia		4.07	20340
7	Germany		3.95	44241
8	Spain		2.37	31284
9	UAE		2.23	40369
10	Japan		2.04	46414
	<i>OECD countries</i>	<i>37</i>	<i>65.43</i>	<i>38062</i>
	<i>Non-OECD countries</i>	<i>164</i>	<i>34.57</i>	<i>9489</i>
<i>GDP per capita (2010 PPP US\$)</i>	<i>0-2000</i>	<i>54</i>	<i>6.96</i>	<i>986</i>
	<i>2000-4500</i>	<i>34</i>	<i>5.95</i>	<i>3255</i>
	<i>4500-6500</i>	<i>18</i>	<i>3.97</i>	<i>5509</i>
	<i>6500-12000</i>	<i>26</i>	<i>7.27</i>	<i>8631</i>
	<i>12000-max</i>	<i>69</i>	<i>75.85</i>	<i>39764</i>

Notes: Source, Gallup data and World Bank data. % *DtM here* share of people stating they want to move to the named country as a percentage of the total number of people who want to migrate, weighted by sample weights and the country population, 2006-2019 average. GDP categories are approximately based on GDP quintiles calculated weighting by the 2006-2019 average population in the country.

Table 3. The desired destination of migrants: global model

	(1) Poisson	(2) Poisson	(3) Poisson	(4) Poisson	(5) Poisson
Log of GDP per capita (2010 PPP \$)	1.22*** (0.05)		1.17*** (0.06)	1.57*** (0.15)	1.72*** (0.16)
GDP 0-2000 (2010 PPP \$)		-1.01*** (0.12)			
GDP 2000-4500 (2010 PPP \$)		-0.80*** (0.13)			
GDP 4500-6500 (2010 PPP \$)		-0.55*** (0.15)			
GDP 6500-12000 (2010 PPP \$)		<i>omitted</i>			
GDP 12000- (2010 PPP \$)		1.71*** (0.10)			
Born in the country	3.11*** (0.17)	2.95*** (0.16)	3.14*** (0.15)	3.34*** (0.19)	3.35*** (0.18)
Log of distance	-0.46*** (0.06)	-0.33*** (0.05)	-0.59*** (0.05)	-0.71*** (0.05)	-0.73*** (0.05)
Same language	1.29*** (0.07)	1.33*** (0.05)	1.24*** (0.06)	1.09*** (0.09)	1.09*** (0.08)
Colonial past	0.50*** (0.12)	0.35*** (0.14)	0.51*** (0.11)	0.62*** (0.11)	0.65*** (0.10)
Same religion	0.47*** (0.09)	0.58*** (0.10)	0.53*** (0.09)	0.42*** (0.10)	0.26*** (0.11)
Migration stock (%)	0.03*** (0.00)	0.04*** (0.00)	0.03*** (0.002)	0.02*** (0.002)	0.02*** (0.002)
Contiguous countries	-0.27** (0.13)	-0.56*** (0.14)	-0.15 (0.12)	0.03 (0.14)	0.10 (0.16)
No working VISA needed	0.80*** (0.13)	0.89*** (0.13)	0.27** (0.12)	0.14 (0.12)	0.16 (0.12)
Logarithm of population	0.53*** (0.03)	0.49*** (0.03)	0.47*** (0.03)	0.32 (0.26)	0.50 (0.38)
Logarithm of area (km ²)	0.17*** (0.02)	0.15*** (0.02)	0.21*** (0.02)		
Affected by disasters (share over population)			-0.32* (0.18)	0.23 (0.15)	0.33** (0.16)
Deaths from conflicts (every 1000 ppl)			-1.74** (0.85)	0.90*** (0.26)	0.44 (0.34)
Polity indicator (1 = democracy)			1.06*** (0.07)	-0.12 (0.09)	-0.11 (0.09)
3 rd /1 st quintile share of income					-0.01 (0.01)
5 th /3 rd quintile share of income					-0.02 (0.05)
Constant	-25.39*** (0.77)	-14.55*** (0.46)	-24.06*** (0.78)	-20.21*** (5.26)	-24.63*** (7.30)
Observations	61,999,515	61,999,515	50,566,596	50,566,596	40,797,557
Individual FE	Yes	Yes	Yes	Yes	Yes
Country of destination FE				Yes	Yes

Notes: Each observation is the combination of someone who would like to move and a possible destination country. The dependent variable takes the value 1 if the destination country is the desired destination and zero otherwise. Clustered SE at the country of origin level. Appendix A provides a description of the variables included.

Table 4. The Desired Destination of Migrants: OECD model with additional controls

	(1)	(2)	(3)	(4)	(5)
	All OECD sample	All OECD sample	Low education	Secondary education	Tertiary education
Log of GDP per capita (2010 PPP \$)	1.36*** (0.25)	2.34*** (0.44)	2.18*** (0.65)	2.53*** (0.48)	2.34*** (0.38)
Primary vs secondary education income return	0.24 (0.48)	-0.09 (0.23)	0.18 (0.32)	-0.05 (0.27)	-0.27 (0.38)
Tertiary vs secondary education income return	-1.78*** (0.44)	1.53*** (0.50)	2.27*** (0.74)	1.36*** (0.50)	0.91** (0.37)
Born in the country	2.93*** (0.27)	2.98*** (0.29)	3.62*** (0.55)	3.10*** (0.34)	2.62*** (0.16)
Log of distance	-0.46*** (0.10)	-0.55*** (0.08)	-0.70*** (0.10)	-0.55*** (0.09)	-0.43*** (0.07)
Same language	1.24*** (0.12)	1.13*** (0.12)	1.31*** (0.21)	1.13*** (0.11)	1.00*** (0.11)
Colonial past	0.74*** (0.13)	0.72*** (0.12)	0.79*** (0.14)	0.73*** (0.14)	0.64*** (0.09)
Same religion	0.85*** (0.17)	0.86*** (0.27)	0.84*** (0.24)	0.91*** (0.26)	0.74** (0.36)
Migration stock (%)	0.02*** (0.003)	0.02*** (0.003)	0.02*** (0.003)	0.02*** (0.003)	0.01*** (0.003)
Contiguous countries	-0.57** (0.25)	-0.60** (0.28)	-0.11 (0.31)	-0.55** (0.27)	-0.71*** (0.26)
No working VISA needed	0.62** (0.31)	0.40 (0.34)	0.47 (0.33)	0.37 (0.34)	0.46 (0.28)
Logarithm of population	0.71*** (0.08)	2.55* (1.33)	4.31** (1.98)	1.79 (1.35)	1.18 (1.07)
Log of area (km2)	0.19*** (0.04)				
Affected by disasters (over population)	-0.28 (0.45)	0.20 (0.13)	-0.06 (0.20)	0.26* (0.15)	0.25** (0.10)
Deaths from conflicts (every 1000 ppl)	-16.10 (10.89)	2.21* (1.28)	4.39** (1.81)	1.94 (1.51)	0.93 (0.59)
Polity indicator (1 = democracy)	0.14 (0.17)	-0.07 (0.14)	-0.11 (0.24)	-0.09 (0.13)	-0.06 (0.09)
Constant	-29.20*** (2.08)	-70.62*** (24.73)	-101.06*** (38.11)	-58.89** (25.14)	-46.31** (19.70)
Observations	6,624,586	6,624,586	1,665,102	3,752,880	1,093,980
Individual FE	Yes	Yes	Yes	Yes	Yes
Country of destination FE		Yes	Yes	Yes	Yes

Notes: Each observation is the combination of someone who would like to move and a possible destination country. The dependent variable takes the value 1 if the destination country is the desired destination and zero otherwise. Clustered SE at the country of origin level. Appendix A provides a description of the variables included.

Table 5. Logit model for the Individual Desire to Migrate

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Per capita annual hhld income (2010 int.l \$) centred at 8K	0.04*** (0.01)	0.004 (0.02)	-0.003 (0.01)	-0.03* (0.02)	-0.03** (0.02)	0.21*** (0.05)	0.22*** (0.05)
Squared: Per capita annual hhld income (2010 int.l \$) centred at 8K		-0.01*** (0.003)		-0.01*** (0.002)	-0.01*** (0.003)		
Squared: Per capita annual hhld income (2010 int.l \$) centred at average					0.01*** (0.00)		
Per capita annual hhld income (2010 int.l \$) centred at 8K *Average income						-0.03*** (0.01)	-0.02*** (0.01)
Secondary education			0.31*** (0.02)	0.31*** (0.02)	0.30*** (0.02)	0.30*** (0.02)	0.31*** (0.02)
Tertiary education			0.42*** (0.04)	0.43*** (0.03)	0.42*** (0.03)	0.42*** (0.04)	0.43*** (0.03)
Born abroad			0.57*** (0.05)	0.57*** (0.05)	0.57*** (0.05)	0.57*** (0.05)	0.57*** (0.05)
Woman			-0.23*** (0.02)	-0.23*** (0.02)	-0.23*** (0.02)	-0.23*** (0.02)	-0.21*** (0.02)
Age 15-24			0.92*** (0.03)	0.92*** (0.03)	0.92*** (0.03)	0.92*** (0.03)	0.97*** (0.03)
Age 25-34			0.71*** (0.03)	0.71*** (0.03)	0.71*** (0.03)	0.71*** (0.03)	0.72*** (0.03)
Age 35-44			0.48*** (0.02)	0.48*** (0.02)	0.47*** (0.02)	0.47*** (0.02)	0.47*** (0.02)
Age 45-64			<i>omitted</i>	<i>omitted</i>	<i>omitted</i>	<i>omitted</i>	<i>omitted</i>
Age 65 and over			-1.02*** (0.03)	-1.02*** (0.03)	-1.02*** (0.03)	-1.02*** (0.03)	-0.97*** (0.03)
Married			-0.29*** (0.01)	-0.30*** (0.01)	-0.30*** (0.01)	-0.30*** (0.01)	-0.28*** (0.01)
Household size (recentred at 4)			0.01*** (0.004)	0.01*** (0.004)	0.01*** (0.004)	0.01*** (0.003)	0.02*** (0.004)
Number of children under 15 (recentred at 2)			-0.02*** (0.003)	-0.02*** (0.003)	-0.02*** (0.003)	-0.02*** (0.002)	-0.02*** (0.003)
Satisfaction with life today							-0.07*** (0.004)
How see life in 5 years							0.005 (0.004)
Satisfaction with freedom in the country							-0.45*** (0.02)
Constant	-2.37*** (0.02)	-2.30*** (0.03)	-2.58*** (0.04)	-2.53*** (0.05)	-2.54*** (0.04)	-2.50*** (0.05)	-1.68*** (0.06)
Observations	1,422,713	1,422,713	1,370,375	1,370,375	1,370,375	1,370,375	1,178,466
Country*Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Each observation is an individual in the GWP who answers the question on whether they would like to migrate. Dependent variable is a binary variable taking value one if they would like to migrate and zero otherwise. Model is a logit model. Clustered SE at the country of origin level.

Table 6. FE analysis for Country-Level Desire to Migrate

	(1)	(2)	(3)	(4)
	OLS	OLS	OLS	OLS
Log of GDP per capita (2010 PPP \$), centred at 8K	-0.17*** (0.04)			
GDP per capita (2010 PPP \$) 0-8000\$		-0.10 (0.10)	-0.13 (0.09)	-0.88* (0.46)
GDP per capita (2010 PPP \$) \$8000 and over		-0.24** (0.10)	-0.40*** (0.09)	-0.93** (0.38)
Inclusive Value			0.42*** (0.15)	-0.32 (0.47)
Log of population			-0.11** (0.04)	0.16 (0.59)
Affected by disasters (share over population)			-0.04 (0.64)	0.29* (0.17)
Deaths from conflicts (every 1000 ppl)			1.03** (0.45)	0.16 (0.45)
Polity indicator (1 = democracy)			0.10 (0.13)	-0.16 (0.13)
Constant	0.79*** (0.06)	1.75** (0.76)	3.80*** (1.08)	6.27 (9.82)
Observations	1,281	1,281	1,249	1,246
Year FE	Yes	Yes	Yes	Yes
Country FE				Yes

Notes: The dependent variable is the estimated country-year fixed effects from column (6) of Table 5. Clustered SE at the country of origin level.

Table 7. US Diversity Visa Programme analysis – Poisson models

	(1)	(2)	(3)	(4)
Log of GDP per capita (2010 PPP \$)	-0.48** (0.21)			
GDP per capita (2010 PPP \$) 0-8000\$		-0.25 (0.27)	-0.52** (0.20)	1.02 (0.79)
GDP per capita (2010 PPP \$) \$8000 and over		-1.00*** (0.42)	-2.25*** (0.48)	-1.40 (0.88)
Log of distance			-1.50 (1.13)	
Migration as a % of population			0.86*** (0.21)	0.55 (0.33)
Same language			0.78 (0.63)	
Same religion			-1.15 (0.77)	
Log of adult population			1.51*** (0.15)	0.42 (2.24)
Affected by disasters (over population)			0.76 (0.76)	-1.06 (0.75)
Deaths from conflicts (every 1000 ppl)			-2.04 (8.92)	0.67* (0.35)
Polity indicator (1 = democracy)			-1.24*** (0.46)	-0.11 (0.13)
Share of population aged 0-14			0.24*** (0.07)	0.11 (0.11)
Share of population aged 15-24			0.41*** (0.09)	0.01 (0.08)
Share of population aged 25-44			0.45*** (0.09)	0.08 (0.06)
Share of population aged 65 plus			0.56*** (0.17)	-0.23 (0.15)
Population with Upper sec educ (at least)			0.01** (0.01)	0.01 (0.01)
Constant	15.60*** (1.93)	14.11*** (2.37)	-16.27 (13.93)	-4.27 (28.79)
Observations	1,150	1,150	1,150	1,138
Region*Year FE	Yes	Yes	Yes	Yes
Country FE				Yes

Notes: Dependent variable is number of applications from an eligible country in a year. Clustered SE at the country of origin level.

Table 8. US Diversity Visa Programme analysis – Poisson models on selected applications (1995-2018)

	(1)	(2)	(3)
GDP per capita (2010 PPP \$) 0-8000\$	0.06 (0.24)	-0.21 (0.19)	-1.10*** (0.25)
GDP per capita (2010 PPP \$) \$8000 and over	-0.85*** (0.23)	-1.19*** (0.27)	-2.60*** (0.58)
Log of distance		-1.72** (0.73)	
Migration (stock) as a % of population		0.28** (0.12)	0.24 (0.21)
Same language		0.36 (0.54)	
Same religion		-0.19 (0.56)	
Log of adult population		0.90*** (0.12)	-1.08 (0.88)
Affected by disasters (over population)		-0.13 (0.58)	-0.30* (0.17)
Deaths from conflicts (every 1000 ppl)		-0.56* (0.33)	-0.6892*** (0.24)
Polity indicator (1 = democracy)		-0.12 (0.25)	-0.04 (0.14)
Share of population aged 0-14		-0.06 (0.05)	-0.09* (0.05)
Share of population aged 15-24		0.06 (0.06)	-0.04 (0.04)
Share of population aged 25-44		-0.06 (0.08)	-0.04 (0.05)
Share of population aged 65 plus		-0.11 (0.09)	-0.27*** (0.09)
Population with Upper sec educ (at least)		0.01** (0.004)	-0.003 (0.003)
Constant	6.69*** (2.04)	19.14** (8.64)	34.96*** (11.02)
Observations	2,198	2,198	2,180
Region*Year FE	Yes	Yes	Yes
Country FE			Yes

Notes: Dependent variable is number of selected applications from an eligible country in a year. Clustered SE at the country of origin level.

Online Appendix – Not For Publication

Appendix A – Dataset and variable construction

A.1 – Gallup data

Gallup World Poll data surveyed in the period 2005-2019 a total of 168 countries on a broad set of topics. We retain for our analysis data from 2006 onwards as the desire to migrate question is not available in 2005. For some specifications we restrict the dataset to the period 2009-2019 due to the lack of availability of employment information before that year. We exclude 9 territories from both the origin and the destination set as, due to their status, they would have very few variables available for the analysis. The territories we exclude are Cuba, Kosovo, Nagorno Karabakh, Northern Cyprus, Oman, Palestine, Puerto Rico, Somaliland, and Taiwan.

List of country of origin in the analysis (159 countries/territories)

Afghanistan, Albania, Algeria, Angola, Argentina, Armenia, Australia, Austria, Azerbaijan, Bahrain, Bangladesh, Belarus, Belgium, Belize, Benin, Bhutan, Bolivia, Bosnia Herzegovina, Botswana, Brazil, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Central African Republic, Chad, Chile, China, Colombia, Comoros, Democratic Republic of Congo, Republic of Congo, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Dominican Republic, Ecuador, Egypt, El Salvador, Estonia, Eswatini, Ethiopia, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Guatemala, Guinea, Guyana, Haiti, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Ivory Coast, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Lithuania, Luxembourg, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Mauritania, Mauritius, Mexico, Moldova, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, North Macedonia, Norway, Pakistan, Panama, Paraguay, Peru, Philippines, Poland, Portugal, Qatar, Romania, Russia, Rwanda, Saudi Arabia, Senegal, Serbia, Sierra Leone, Singapore, Slovakia, Slovenia, Somalia, South Africa, South Korea, South Sudan, Spain, Sri Lanka, Sudan, Suriname, Sweden, Switzerland, Syria, Tajikistan, Tanzania, Thailand, Togo, Trinidad and Tobago, Tunisia, Turkey, Turkmenistan, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Uzbekistan, Venezuela, Vietnam, Yemen, Zambia, Zimbabwe

List of potential destinations (total of 200 destinations/countries)

Afghanistan, Albania, Algeria, Andorra, Angola, Antigua and Barbuda, Argentina, Armenia, Aruba, Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Belize, Benin, Bermuda, Bhutan, Bolivia, Bosnia Herzegovina, Botswana, Brazil, Brunei, Bulgaria, Burkina Faso, Burundi, Cambodia, Cameroon, Canada, Cape Verde, Central African Republic, Chad, Chile, China, Colombia, Comoros, Democratic Republic of Congo, Republic of Congo, Costa Rica, Croatia, Cuba, Cyprus, Czech Republic, Denmark, Djibouti, Dominica, Dominican Republic, Ecuador, Egypt, El Salvador, Equatorial Guinea, Eritrea, Estonia, Eswatini, Ethiopia, Faroe Islands, Fiji, Finland, France, Gabon, Gambia, Georgia, Germany, Ghana, Greece, Greenland, Grenada, Guatemala, Guinea, Guinea-Bissau, Guyana, Haiti, Honduras, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Isle of Man, Israel, Italy, Ivory Coast, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kiribati, Kuwait, Kyrgyzstan, Laos, Latvia, Lebanon, Lesotho, Liberia, Libya, Liechtenstein, Lithuania, Luxembourg, Macau, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Marshall Islands, Mauritania, Mauritius, Mexico, Micronesia, Moldova, Monaco, Mongolia, Montenegro, Morocco, Mozambique, Myanmar, Namibia, Nauru, Nepal, Netherlands, New Zealand, Nicaragua, Niger, Nigeria, North Macedonia, Northern Mariana Islands, Norway, Oman, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Puerto Rico, Qatar, Romania, Russia, Rwanda, Saint Lucia, Samoa, San Marino, Sao Tome & Principe, Saudi Arabia, Senegal, Serbia, Seychelles, Sierra Leone, Singapore, Slovakia, Slovenia, Solomon Islands, South Africa, South Korea, South Sudan, Spain, Sri Lanka, St. Kitts & Nevis, St. Vincent & Grenadines, Sudan, Suriname, Sweden, Switzerland, Tajikistan, Tanzania, Thailand, Timor Leste, Togo, Tonga, Trinidad

and Tobago, Tunisia, Turkey, Turkmenistan, Turks and Caicos Islands, Tuvalu, Uganda, Ukraine, United Arab Emirates, United Kingdom, United States, Uruguay, Uzbekistan, Vanuatu, Venezuela, Vietnam, Yemen, Zambia, Zimbabwe

List of destinations excluded when institutional controls are included

Andorra, Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bermuda, Brunei, Dominica, Faroe Islands, Greenland, Grenada, Hong Kong, Iceland, Isle of Man, Kiribati, Liechtenstein, Macau, Maldives, Malta, Marshall Islands, Micronesia, Monaco, Nauru, Northern Mariana Islands, Palau, Puerto Rico, Saint Lucia, Samoa, San Marino, Sao Tome & Principe, Seychelles, St. Kitts & Nevis, St. Vincent & Grenadines, Tonga, Turks and Caicos Islands, Tuvalu, Vanuatu

List of destinations excluded when inequality variables are included

Afghanistan, Bahrain, Cambodia, Cuba, Equatorial Guinea, Eritrea, Guinea, Guyana, Kuwait, Libya, New Zealand, Oman, Qatar, Saudi Arabia, Singapore, Suriname, Trinidad and Tobago, Turkmenistan

A.2 - Gallup World Poll: individual characteristics, controls, and outcomes

- Gender: WP1219
- Age: WP1220 Please tell me your age.
- Education: WP3117 What is your highest completed level of education?
- Number of kids: WP1230 How many children under 15 years of age are now living in your household?
- Household size: hhsz Total number living in household for per capita income
- Marriage status: WP1223 What is your current marital status?
- Born abroad: WP4657 Were you born in this country, or not?
- Where born: WP9048 In which country were you born? (asked only of those who were not born in this country)
- Employment status: emp_2010 Respondents fall into one of six categories of employment based on a combination of answers to a series of questions about employment.
- Income: income_2 Annual household income in International Dollars
- Income_4 Per Capita annual income in International Dollars
- Income_5 Per Capita income quintiles
- Life satisfaction today: WP16 Please imagine a ladder with steps numbered from 0 at the bottom to 10 at the top. Suppose we say that the top of the ladder represents the best possible life for you, and the bottom of the ladder represents the worst possible life for you. On which step of the ladder would you say you personally feel you stand at this time, assuming that the higher the step the better you feel about your life, and the lower the step the worse you feel about it? Which step comes closest to the way you feel?
- Life satisfaction in 5 years: WP18 Please imagine a ladder with steps numbered from 0 at the bottom to 10 at the top. Suppose we say that the top of the ladder represents the best possible life for you, and the bottom of the ladder represents the worst possible life for you. Just your best guess, on which step do you think you will stand on in the future, say about five years from now?
- Satisfaction with freedom in the country: WP134 In this country, are you satisfied or dissatisfied with your freedom to choose what you do with your life?
- Desire to migrate: WP1325 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?
- Plan to move in 12 months: WP10252 Are you planning to move permanently to another country in the next 12 months, or not? (asked only of those who would like to move to another country)
- Preparation for move: WP9455 Have you done any preparation for this move (asked only of those who are planning to move to another country in the next 12 months)
- Where to migrate: WP3120 To which country would you like to move? (Asked only of those who would like to move to another country.) (FIRST RESPONSE)

- Where to migrate in 12 months: WP10253 To which country are you planning to move in the next 12 months? (asked only of those who are planning to move to another country in the next 12 months)

A.3 – Socio-economic characteristics (*variable labels in italics*)

The economic conditions data we use come from the World Bank database (<https://data.worldbank.org>). We collect information on land size (*Log of area (km²)*), time varying data on population (*Log of population*), and per capita gross domestic product in 2010 PPP dollars (*Log of GDP per capita (2010 PPP \$)*), which we derived from the WB series of Per Capita GDP in 2010 LCU and the PPP index series.

We also include two measures of inequality derived again from the World Bank database, for instance the ratio between the 3rd and the 1st GDP quintiles (*3rd/1st quintile share of income*) and the 5th and the 3rd quintiles (*5th/3rd quintile share of income*).

A.4 – Institutions, conflicts, and environmental issues (*variable labels in italics*)

In our study, we include information on the number of people who are affected by natural disaster in a given country and a given year (*Affected by disasters* – source: The International Disaster Database, EMDAT, <https://www.emdat.be>, Centre for Research on the Epidemiology of Disasters). The number is standardised to the total population, so it accounts for the share of population affected by natural disasters.

On conflicts, we collected data from the Uppsala Conflict Database Project (UCDP - <https://ucdp.uu.se>) on the annual estimates of total deaths from active conflicts in a given country. Also in this case, the measure is by 1,000 people (*Deaths from conflicts (every 1000 ppl)*).

On government institution we use data from Polity IV, and for instance we use an indicator they construct on how democratic the government a country (*Polity indicator (1 = democracy)*). The indicator span from -10 for full dictatorships to 10 for full democracies. Based on this information, we construct an indicator that takes value 1 democratic regimes (above +6), and zero for dictatorial regimes (below -6), and anocracies (values between -6 and 6 of the indicator; Llull, 2017).

A.5 – Country pair characteristics (*variable labels in italics*)

We include in the dataset a set of information on physical and cultural distance:

- *Log of distance*: the (log of) physical distance in kilometres between main cities in terms of population;
- *Contiguous countries*: a dummy variable for whether two countries share a border;
- *Former coloniser/colony*: a dummy variable to indicate whether two countries had a colonial relationship;
- *Same language*: a dummy variable to indicate whether two countries share a language. This variable refers to an official language spoken in the country by at least 20% of the population.

These variables are from the CEPII GeoDist database³¹. A few destinations in our sample are not in the CEPII database – for instance Isle of Man, Kosovo, Liechtenstein, Monaco, Montenegro, Serbia, South Sudan – we impute the variables for these observations using geographical, historical, and official language information.

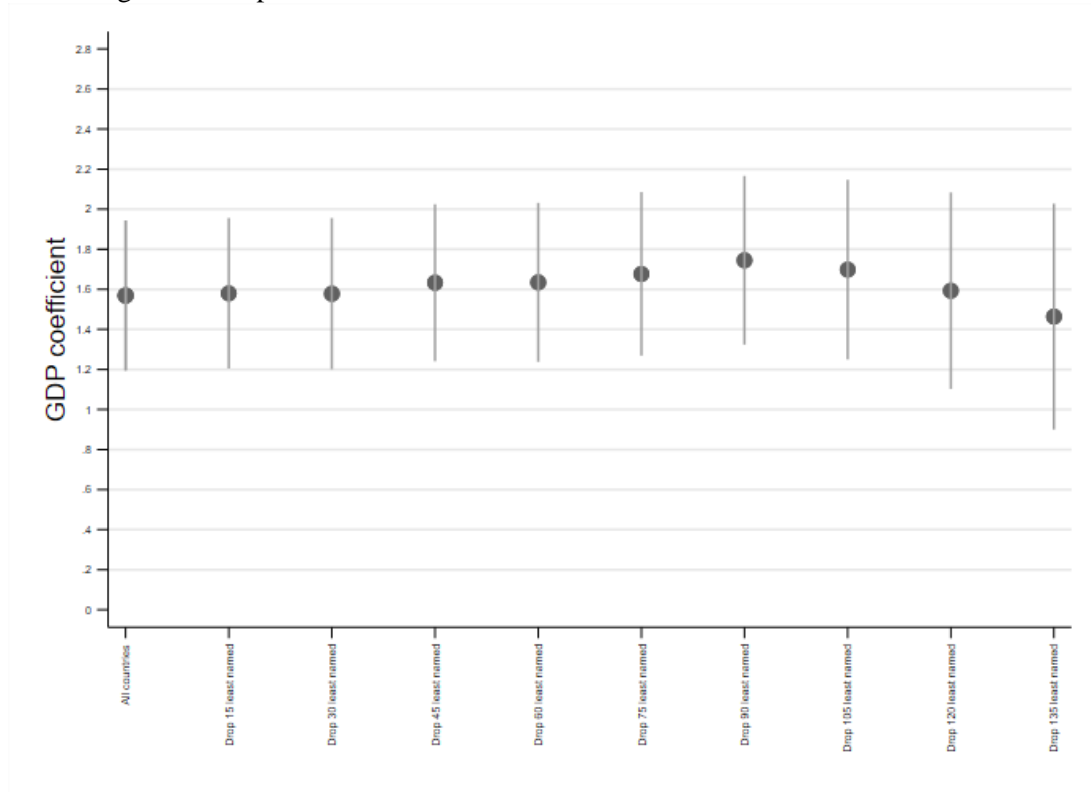
Using data from the Pew Research Center, we also have information on whether two countries have the same religion (*Same religion*). We also collect information on whether people can freely move between two countries to work without any stringent visa requirement (*No working VISA needed*). This variable essentially combines information on countries that belong to the European Union, the Mercosur agreements, and Australia and New Zealand, which have a migration agreement in place.

³¹ http://www.cepii.fr/CEPII/en/bdd_modele/presentation.asp?id=6

We include information on migration stocks from a given country (source: UN database), the numbers are standardised as percentage of the total immigrants from a given country (*Migration stock (%)*). For the US Diversity Visa analysis programme we use as a control for the migration stock the number of people from a given country standardised by the population of the country.

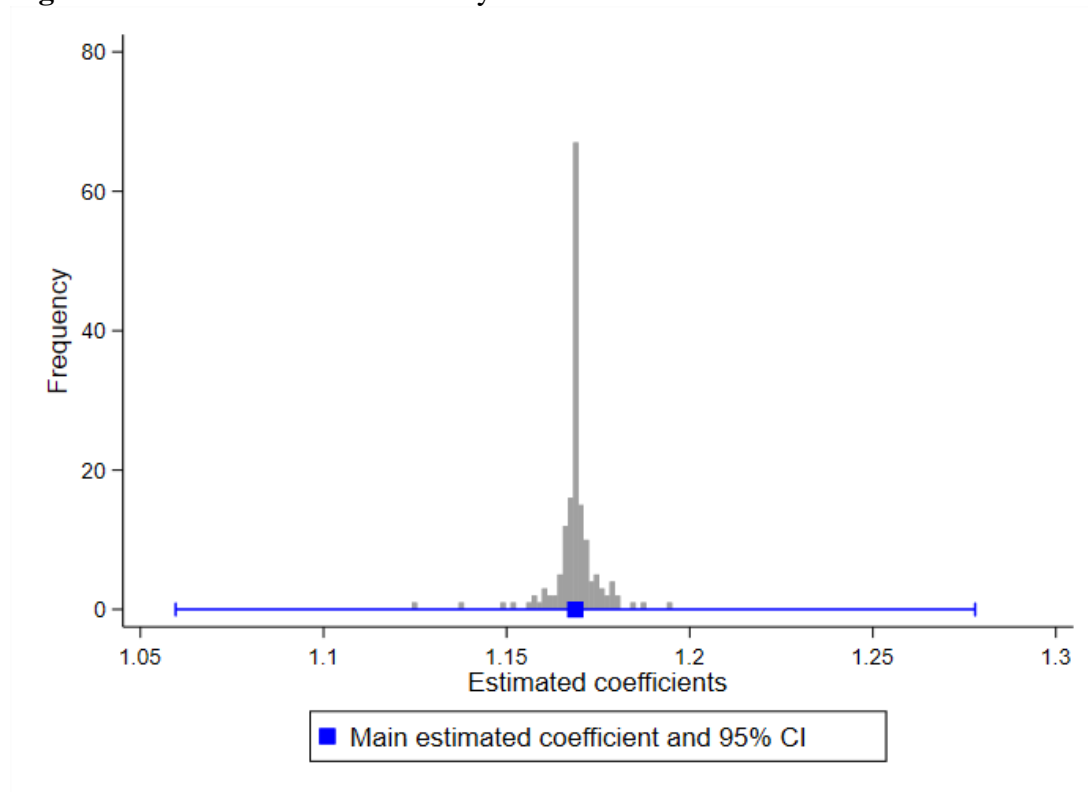
Appendix B – Additional figures and tables

Figure B1. Global model, robustness. Drop larger groups of countries based on the frequency of countries being named as preferred destination



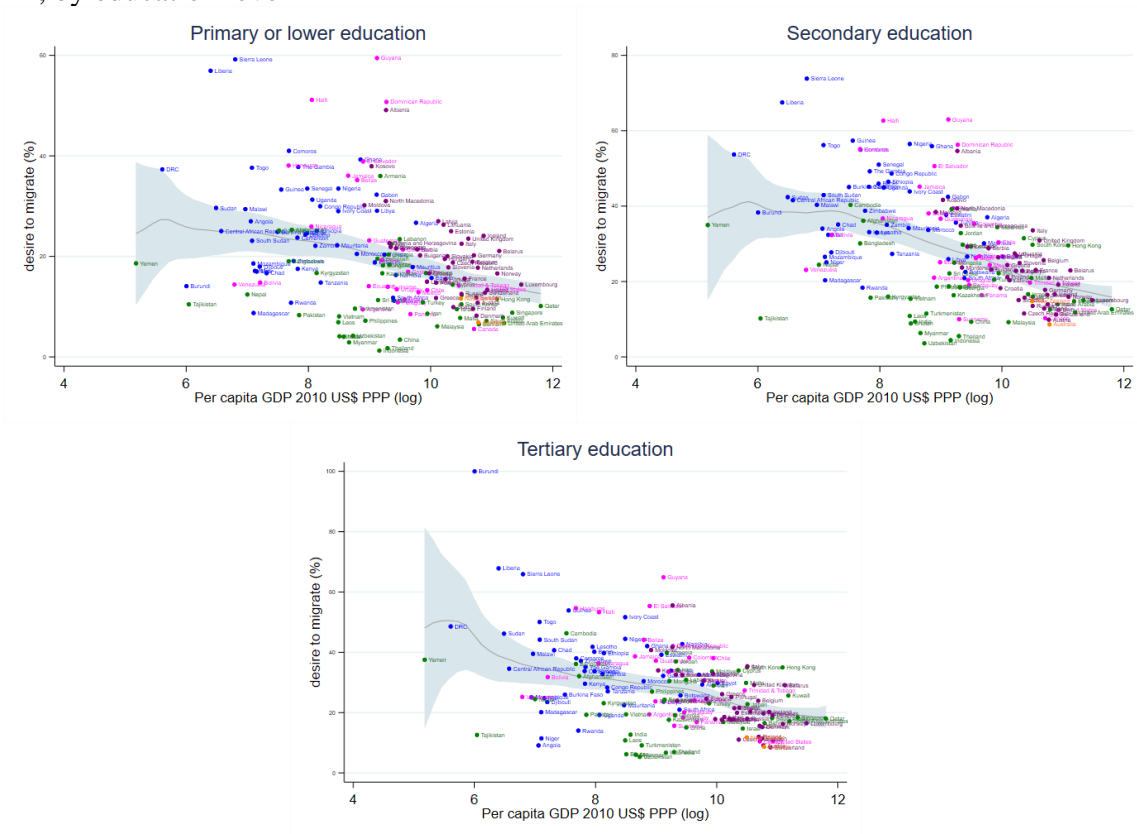
Notes: Models estimated as in Column 4 of Table 3. 99% confidence intervals displayed.

Figure B2. One-out destination analysis



Notes: Models estimated as in Column 3 of Table 3.

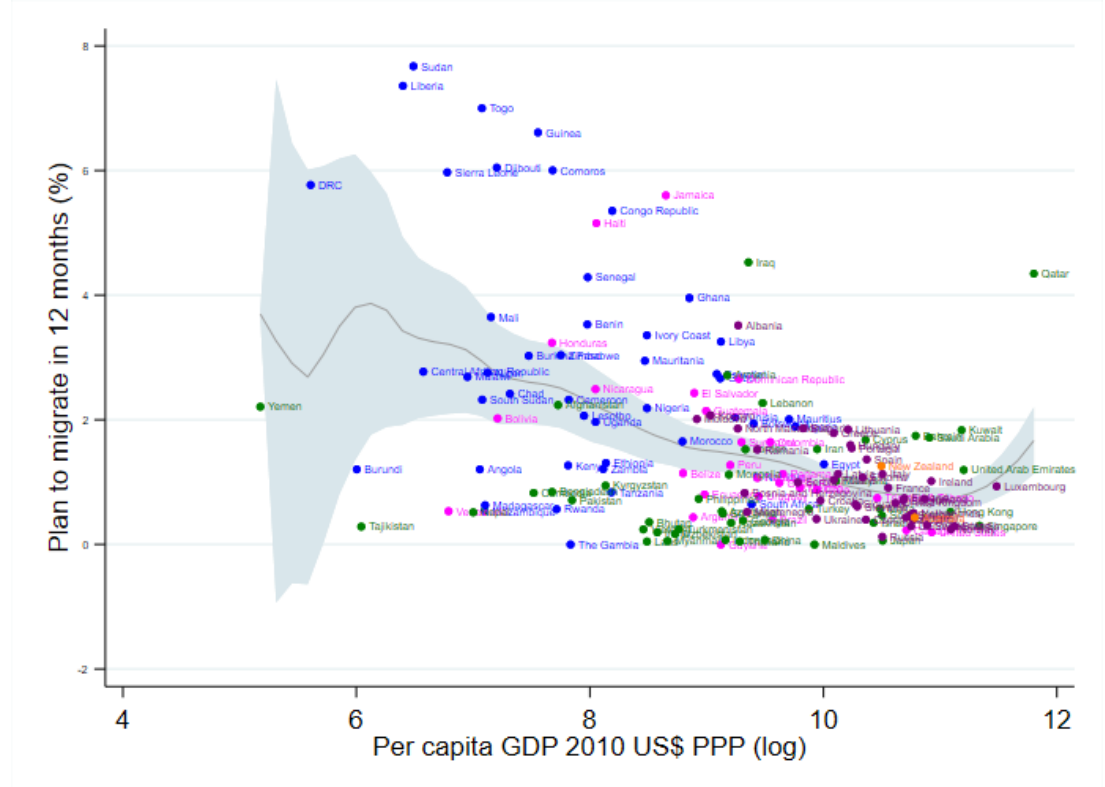
Figure B3. Percentage of people who desire to migrate by country of origin and per capita GDP, by education level



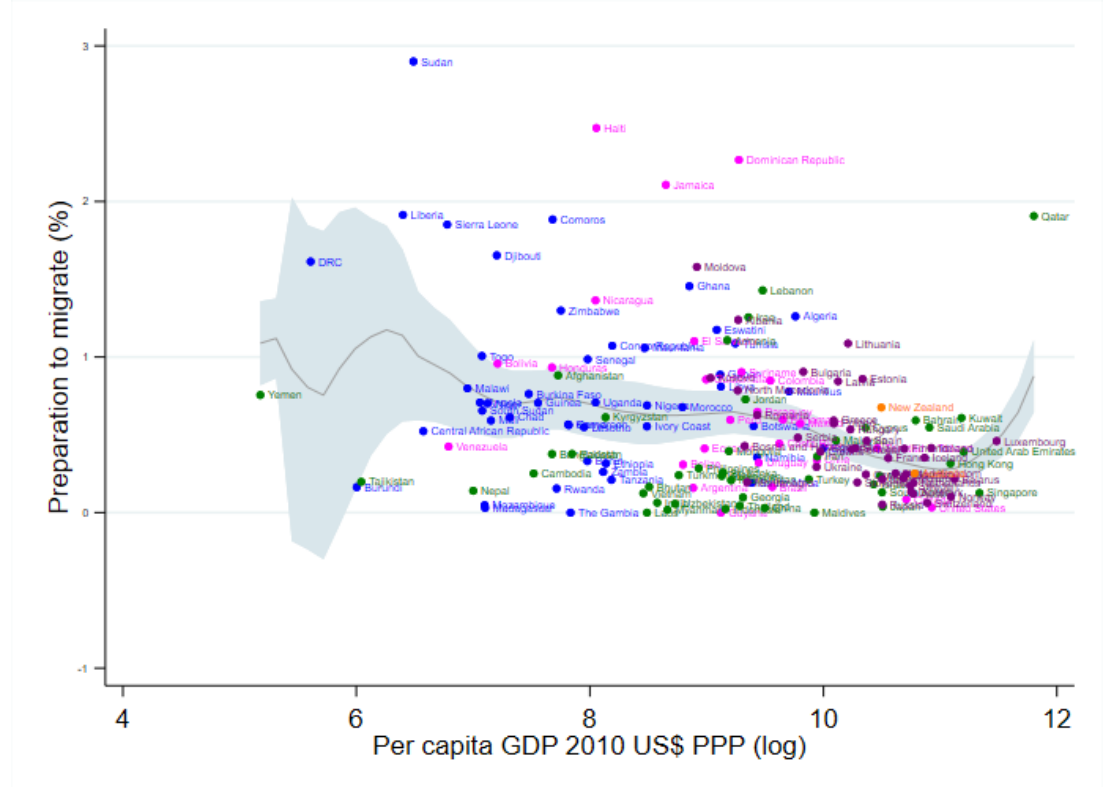
Notes: Source, Gallup and World Bank data.

Figure B4. Percentage of people who plan to migrate within 12 years and who are preparing to migrate by country of origin and per capita GDP

A. Plan to migrate in 12 months over all GWP respondents



B. Make preparation to migrate over all GWP respondents



Notes: Source, Gallup and World Bank data.

Tables

Table B1. Global model, robustness

	(1)	(2)	(3)	(4)	(5)
	No US	Drop biggest migration destinations	English speaking destinations	Migrate in 12 months	OECD destinations
Log of GDP per capita (2010 PPP \$)	1.60*** (0.15)	1.44*** (0.15)	1.24*** (0.31)	0.97*** (0.38)	2.43*** (0.55)
Born in the country	3.42*** (0.19)	3.94*** (0.11)	3.17*** (0.23)	3.83*** (0.14)	3.01*** (0.28)
Log of distance	-0.74*** (0.05)	-0.67*** (0.05)	-0.89*** (0.12)	-0.79*** (0.05)	-0.53*** (0.09)
Same language	1.02*** (0.10)	0.93*** (0.10)	0.73*** (0.14)	0.98*** (0.10)	1.13*** (0.12)
Colonial past	0.45*** (0.12)	0.49*** (0.13)	0.62*** (0.18)	0.69*** (0.13)	0.68*** (0.12)
Same religion	0.45*** (0.11)	0.36*** (0.10)	0.20 (0.24)	0.26** (0.11)	0.50 (0.38)
Migration stock (%)	0.03*** (0.003)	0.06*** (0.01)	0.02*** (0.004)	0.03*** (0.002)	0.02*** (0.003)
Contiguous countries	-0.10 (0.15)	0.16 (0.15)	0.57 (0.35)	0.40** (0.16)	-0.52* (0.29)
No working VISA needed	-0.10 (0.15)	0.26** (0.12)	-0.02 (0.31)	0.62*** (0.19)	0.40 (0.32)
Logarithm of population	0.28 (0.26)	0.32 (0.26)	2.29*** (0.83)	0.04 (0.97)	0.89 (1.39)
Affected by disasters (over population)	0.42*** (0.16)	0.18 (0.13)	0.27 (0.17)	0.14 (0.44)	0.16 (0.16)
Deaths from conflicts (every 1000 ppl)	0.88*** (0.29)	0.78*** (0.26)	1.30 (0.99)	0.75 (0.51)	-0.29 (1.47)
Polity indicator (1 = democracy)	-0.14 (0.09)	-0.07 (0.09)	-0.10 (0.17)	-0.37*** (0.14)	-0.14 (0.13)
Constant	-19.58*** (5.11)	-19.19*** (5.39)	-49.15*** (14.82)	-8.26 (17.88)	-40.81* (23.68)
Observations	38,456,967	39,315,941	5,058,042	3,374,209	8,511,425
Individual FE	Yes	Yes	Yes	Yes	Yes
Country of destination FE	Yes	Yes	Yes	Yes	Yes

Notes: Clustered SE at the country of origin level. Appendix A provides a description of the variables included.

Table B2. Global model – heterogeneities. Part 1: Education and age

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Education			Age groups				
	Primary or lower education	Secondary education	Tertiary education	Age 15-24	Age 25-34	Age 35-44	Age 45-64	Over 65
Log of GDP per capita (2010 PPP \$)	1.61*** (0.22)	1.75*** (0.16)	1.24*** (0.23)	1.86*** (0.17)	1.52*** (0.17)	1.56*** (0.19)	1.26*** (0.19)	1.17*** (0.27)
Born in the country	3.23*** (0.26)	3.33*** (0.20)	3.41*** (0.15)	2.80*** (0.23)	3.21*** (0.21)	3.71*** (0.17)	3.54*** (0.21)	3.52*** (0.23)
Log of distance	-0.85*** (0.05)	-0.69*** (0.05)	-0.49*** (0.06)	-0.76*** (0.05)	-0.74*** (0.05)	-0.69*** (0.05)	-0.65*** (0.05)	-0.63*** (0.06)
Same language	1.12*** (0.12)	1.11*** (0.08)	1.13*** (0.10)	1.16*** (0.09)	1.08*** (0.09)	1.10*** (0.09)	1.02*** (0.09)	0.94*** (0.10)
Colonial past	0.78*** (0.16)	0.66*** (0.10)	0.52*** (0.10)	0.58*** (0.11)	0.64*** (0.11)	0.60*** (0.11)	0.61*** (0.12)	0.69*** (0.12)
Same religion	0.28** (0.12)	0.44*** (0.10)	0.58*** (0.10)	0.35*** (0.10)	0.38*** (0.10)	0.46*** (0.10)	0.55*** (0.11)	0.52*** (0.11)
Migration stock (%)	0.02*** (0.003)	0.02*** (0.002)	0.02*** (0.003)	0.02*** (0.002)	0.02*** (0.002)	0.02*** (0.002)	0.03*** (0.003)	0.03*** (0.003)
Contiguous countries	0.51*** (0.14)	-0.08 (0.15)	-0.35** (0.15)	0.24* (0.14)	0.09 (0.15)	-0.05 (0.15)	-0.26* (0.15)	-0.09 (0.12)
No working VISA needed	0.30* (0.16)	0.20 (0.12)	0.26** (0.11)	0.15 (0.15)	0.14 (0.15)	0.09 (0.13)	0.20 (0.12)	0.18 (0.11)
Logarithm of population	0.24 (0.43)	0.59** (0.28)	0.42 (0.40)	0.76*** (0.28)	0.21 (0.31)	0.12 (0.29)	-0.13 (0.32)	-0.70 (0.48)
Affected by disasters (over total ppl)	0.01 (0.32)	0.24* (0.13)	0.46** (0.18)	0.23 (0.18)	0.25 (0.18)	0.15 (0.22)	0.35** (0.17)	0.06 (0.30)
Deaths from conflicts (every 1000 ppl)	1.00*** (0.36)	0.97*** (0.30)	0.59 (0.60)	1.13*** (0.30)	1.11*** (0.35)	1.12*** (0.41)	0.39 (0.49)	-2.24** (1.11)
Polity indicator (1 = democracy)	-0.28*** (0.13)	-0.02 (0.09)	-0.06 (0.10)	-0.18* (0.10)	-0.17* (0.10)	-0.09 (0.12)	-0.02 (0.09)	-0.09 (0.17)
Constant	-17.87** (8.97)	-27.17*** (5.62)	-20.46*** (7.88)	-30.44*** (5.94)	-17.40*** (6.12)	-16.78*** (6.18)	-9.87* (5.90)	1.04 (9.09)
Observations	13,662,473	28,075,060	7,796,641	16,273,208	13,866,871	9,088,094	9,251,232	1,728,272
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country of destination FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Clustered SE at the country of origin level. Appendix A provides a description of the variables included.

Table B3. Global model – heterogeneities. Part 2: Per capita household income and country of origin GDP bands

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Per capita household income quintiles					Country of origin GDP bands				
	Poorest 20%	Second 20%	Third 20%	Fourth 20%	Richest 20%	0-2000 USD	2000-4500 USD	4500-6500 USD	6500-12000 USD	Over 12000 USD
Log of GDP per capita (2010 PPP \$)	1.64*** (0.23)	1.54*** (0.22)	1.65*** (0.20)	1.66*** (0.18)	1.61*** (0.17)	1.44*** (0.40)	1.88*** (0.25)	2.29*** (0.64)	1.86*** (0.32)	1.24*** (0.21)
Born in the country	3.70*** (0.19)	3.59*** (0.19)	3.51*** (0.17)	3.39*** (0.18)	3.20*** (0.19)	1.97*** (0.40)	2.46*** (0.43)	2.89*** (0.57)	3.06*** (0.34)	3.75*** (0.15)
Log of distance	-0.73*** (0.05)	-0.71*** (0.05)	-0.69*** (0.05)	-0.69*** (0.05)	-0.69*** (0.04)	-0.87*** (0.11)	-0.99*** (0.10)	-1.17*** (0.09)	-0.75*** (0.09)	-0.49*** (0.06)
Same language	1.05*** (0.10)	1.07*** (0.10)	1.08*** (0.08)	1.09*** (0.08)	1.06*** (0.08)	1.29*** (0.18)	1.06*** (0.12)	0.49*** (0.14)	1.43*** (0.18)	0.96*** (0.12)
Colonial past	0.54*** (0.12)	0.57*** (0.12)	0.59*** (0.11)	0.60*** (0.10)	0.65*** (0.09)	0.91*** (0.25)	1.42*** (0.32)	1.28*** (0.41)	0.40* (0.22)	0.44*** (0.11)
Same religion	0.52*** (0.11)	0.52*** (0.11)	0.48*** (0.11)	0.46*** (0.10)	0.37*** (0.10)	0.17 (0.15)	0.22 (0.19)	0.79*** (0.28)	0.61*** (0.21)	0.64*** (0.11)
Migration stock (%)	0.03*** (0.003)	0.03*** (0.002)	0.02*** (0.002)	0.02*** (0.002)	0.02*** (0.002)	0.03*** (0.004)	0.02*** (0.004)	0.01 (0.01)	0.02*** (0.003)	0.02*** (0.003)
Contiguous countries	-0.03 (0.17)	0.01 (0.16)	0.08 (0.15)	0.05 (0.14)	-0.01 (0.13)	0.65*** (0.24)	0.68*** (0.19)	0.08 (0.37)	0.54** (0.27)	-0.48*** (0.14)
No working VISA needed	0.10 (0.16)	0.09 (0.15)	0.11 (0.13)	0.20 (0.13)	0.22* (0.11)	0.38 (0.45)			0.69*** (0.23)	0.22** (0.11)
Logarithm of population	-0.55 (0.46)	-0.80* (0.42)	-0.24 (0.45)	-0.51 (0.41)	-0.46 (0.39)	0.25 (0.68)	1.01* (0.52)	0.84 (1.20)	1.71** (0.67)	-0.77* (0.41)
Affected by disasters (over population ppl)	0.26 (0.17)	0.42*** (0.16)	0.00 (0.22)	0.44** (0.17)	0.30* (0.16)	-0.76 (0.67)	0.33 (0.24)	0.42 (0.63)	0.54** (0.27)	0.39*** (0.14)
Deaths from conflicts (every 1000 ppl)	0.95* (0.50)	0.99* (0.53)	0.90* (0.46)	1.14*** (0.43)	0.75** (0.36)	1.10** (0.43)	1.83*** (0.44)	1.16 (1.53)	1.69* (0.95)	-0.32 (0.47)
Polity indicator (1 = democracy)	-0.22* (0.13)	-0.22** (0.11)	-0.22** (0.11)	-0.14* (0.08)	-0.09 (0.09)	-0.07 (0.19)	-0.46*** (0.15)	0.30* (0.16)	-0.16 (0.20)	-0.02 (0.13)
Constant	-5.50 (8.94)	0.13 (8.10)	-11.22 (8.56)	-6.51 (7.76)	-6.88 (7.71)	-15.96 (13.19)	-33.09*** (10.03)	-33.23 (25.56)	-48.13*** (13.92)	0.26 (7.91)
Observations	6,800,955	7,255,410	8,020,699	9,191,991	11,871,933	8,033,304	8,576,340	2,217,687	11,711,129	18,858,307
Individual FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country of destination FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Clustered SE at the country of origin level. Appendix A provides a description of the variables included.

Table B4. Logit model –By education levels and other definitions

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Primary or lower education	Secondary education	Tertiary education	Planning to Move in next 12 months	Done preparation for moving	Planning to Move in next 12 months	Done preparation for moving
				<i>Conditional</i>		<i>Unconditional</i>	
Per capita annual hhld income (2010 int.l \$) centred at 8K	0.17** (0.07)	0.20*** (0.05)	-0.05 (0.07)	0.18** (0.08)	0.46*** (0.14)	0.22*** (0.06)	0.52*** (0.12)
Per capita annual hhld income (2010 int.l \$) *Average income	-0.02** (0.01)	-0.03*** (0.01)	-0.003 (0.008)	-0.01 (0.01)	-0.02 (0.03)	-0.02** (0.01)	-0.04** (0.01)
Secondary education				0.13*** (0.03)	0.25*** (0.05)	0.33*** (0.03)	0.42*** (0.04)
Tertiary education				0.32*** (0.04)	0.58*** (0.08)	0.57*** (0.04)	0.80*** (0.06)
Born abroad	0.48*** (0.05)	0.55*** (0.05)	0.63*** (0.07)	0.47*** (0.06)	0.16** (0.07)	0.87*** (0.05)	0.94*** (0.06)
Woman	-0.36*** (0.03)	-0.18*** (0.02)	-0.11*** (0.02)	-0.20*** (0.03)	-0.08*** (0.03)	-0.34*** (0.04)	-0.38*** (0.04)
Age 15-24	0.98*** (0.05)	0.90*** (0.04)	0.76*** (0.04)	0.09** (0.04)	-0.11*** (0.05)	0.77*** (0.05)	0.72*** (0.06)
Age 25-34	0.78*** (0.04)	0.69*** (0.03)	0.62*** (0.03)	0.29*** (0.04)	0.07 (0.05)	0.79*** (0.05)	0.86*** (0.06)
Age 35-44	0.54*** (0.03)	0.47*** (0.02)	0.41*** (0.03)	0.17*** (0.04)	0.09 (0.06)	0.51*** (0.04)	0.58*** (0.06)
Age 45-64	<i>omitted</i>	<i>omitted</i>	<i>omitted</i>	<i>omitted</i>	<i>omitted</i>	<i>omitted</i>	<i>omitted</i>
Age 65 and over	-1.05*** (0.05)	-1.05*** (0.03)	-0.92*** (0.03)	-0.12* (0.06)	0.26** (0.11)	-0.98*** (0.08)	-0.80*** (0.09)
Married	-0.27*** (0.02)	-0.31*** (0.02)	-0.27*** (0.02)	-0.20*** (0.03)	0.04 (0.04)	-0.40*** (0.03)	-0.39*** (0.04)
Household size (recentred at 4)	0.02*** (0.01)	0.01** (0.004)	-0.02*** (0.01)	0.01 (0.01)	0.04*** (0.01)	0.02** (0.01)	0.03*** (0.01)
Number of children under 15 (recentred at 2)	-0.02*** (0.005)	-0.02*** (0.004)	-0.03*** (0.01)	0.002 (0.01)	-0.001 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Constant	-1.46*** (0.03)	-2.29*** (0.02)	-2.10*** (0.04)	-3.38*** (0.07)	-0.83*** (0.06)	-5.95*** (0.06)	-7.39*** (0.08)
Observations	457,224	700,742	211,419	145,064	21,255	763,292	762,076
Country*Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Notes: Clustered SE at the country of origin level.

Table B5. FE analysis for Country-Level Plan to Migrate

	(1) OLS	(2) OLS	(3) OLS	(4) OLS
Log of GDP per capita (2010 PPP \$), centred at 8K	-0.29*** (0.05)			
GDP per capita (2010 PPP \$) 0-8000\$		-0.17** (0.09)	-0.16* (0.09)	-0.15 (0.61)
GDP per capita (2010 PPP \$) \$8000 and over		-0.42*** (0.10)	-0.47*** (0.12)	-0.51 (0.43)
Inclusive Value			0.08 (0.08)	-0.03 (0.15)
Log of population			-0.16*** (0.03)	-0.41 (0.93)
Affected by disasters (share over population)			0.60 (0.47)	0.14 (0.37)
Deaths from conflicts (every 1000 ppl)			3.65*** (1.24)	1.74*** (0.43)
Polity indicator (1 = democracy)			-0.05 (0.12)	-0.19* (0.11)
Constant	1.27*** (0.06)	2.96*** (0.72)	5.50*** (1.02)	9.70 (15.33)
Observations	699	699	684	674
Year FE	Yes	Yes	Yes	Yes
Country FE				Yes

Notes: Clustered SE at the country of origin level.

Table B6. FE analysis for Country-Level Preparation to Migrate

	(1) OLS	(2) OLS	(3) OLS	(4) OLS
Log of GDP per capita (2010 PPP \$), centred at 8K	-0.09*** (0.03)			
GDP per capita (2010 PPP \$) 0-8000\$		0.04 (0.05)	0.08 (0.06)	-1.05 (0.73)
GDP per capita (2010 PPP \$) \$8000 and over		-0.26*** (0.08)	-0.35*** (0.09)	-1.50** (0.69)
Inclusive Value			0.15* (0.08)	0.005 (0.27)
Log of population			-0.03 (0.03)	-2.13* (1.28)
Affected by disasters (share over population)			0.02 (0.43)	-0.65 (0.51)
Deaths from conflicts (every 1000 ppl)			-0.75 (0.80)	-1.04 (1.24)
Polity indicator (1 = democracy)			-0.21** (0.10)	-0.10 (0.13)
Constant	0.50*** (0.04)	0.31 (0.45)	0.64 (0.70)	45.59** (22.67)
Observations	685	685	643	635
Year FE	Yes	Yes	Yes	Yes
Country FE				Yes

Notes: Clustered SE at the country of origin level.

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