Understanding Migration in North Central America Countries:

El Salvador, Guatemala, Honduras, and Nicaragua

WORLD BANK GROUP

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ABSTRACT

This report explores different aspects of migration flows from North Central America countries, specifically from El Salvador, Guatemala, Honduras, and Nicaragua. It provides an in-depth socio-economic characterization of migrant households (those with a migrant household member) in these four countries, using the latest available data at the household level. Moreover, it provides a profile of migrants themselves, both as reported by their household members in their country of origin and by themselves in the United States – the main destination for North Central American migrants, except for Nicaraguans. In addition, the report explores some of the main factors behind the decision to migrate (referred as push and pull factors). The report examines three push factors that have been traditionally linked to migration flows in the region: (i) limited economic opportunities and low living standards; (ii) natural hazards, usually linked to climate change; and (iii) violence. Finally, it explores some of the pull factors that seem to attract migrants from these countries to the United States, including labor market outcomes and access to services. This analysis of who migrates and why can help inform policies and programs at the national, bilateral, and regional level. In turn, this can assist in maximizing the net benefits of migration, helping migrants as well as their respective countries of origin and destination.

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ABBREVIATIONS AND ACRONYMS

ACS	American Community Survey
GDP	Gross Domestic Product
NCA	Northern Central America
SEDLAC	Socio-Economic Database for Latin America and the Caribbean

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EXECUTIVE SUMMARY

In recent years, migration from Central America has intensified and the profile of migrants has changed. In 2019, around 3.5 million individuals from El Salvador, Guatemala, Honduras, and Nicaragua (referred to as the Northern Central America [NCA] countries for the purposes of this report) were living in the United States. Compared to 2010, this reflects a 24-percent increase in the stock of NCA-born individuals in the United States. While the COVID-19 pandemic slowed migratory flows in 2020, the recent numbers (for 2021 and 2022) of migrant encounters at the U.S. border suggests that more NCA individuals are willing to migrate now than before the pandemic. In the years preceding the pandemic, there was an increase in the migration of families and children, which accentuated the degree of vulnerability that migrants faced. Furthermore, the data show a reversal in migration patterns since the pandemic. Before COVID-19, individuals were more likely to migrate as a family unit. Today, the trend is towards adult individuals migrating alone.

At the same, migration flows from Central America now occupy a central space in the international policy agenda, involving origin, transit, and destination countries. The intensification of migration flows from NCA countries, particularly to the United States, is reflected in the issue's growing prominence in political debate at both the national and international level. Large migrant 'caravans' (i.e., the large groups of Central Americans cross through their own states and through Mexico to reach the U.S.-Mexican border) have brought additional public focus to the issue over recent years. This has been fed by regular media coverage concerning the perils associated with the experience of migration.[1] As well as portraying the general riskiness and duress to which migrants are exposed, these reports highlight the specific threat of violence and human trafficking, particularly for women and children.

Drawing on the latest available data, this report intends to characterize migration in North Central America with the goal of informing political dialogue and helping shape effective public policies and programs. Specifically, the report studies the profiles of households (in countries of origin) with at least one member abroad – defined here as 'migrant households'. At the same time, it profiles migrants themselves, both as reported by their household members in their country of origin and by themselves at destination, including their education and labor status.[2] This information sheds light on some of the main incentives behind the decision to migrate, as well as on the well-being conditions of migrants themselves at their destination, including their labor market outcomes.

NCA migrants are for the most part, men and young individuals, which likely impacts the dynamics of their households when they leave. NCA migrants from El Salvador and Guatemala are mainly men, and leave their home country in their mid-20s, as reported by relatives in their home country. The large share of young male migrants partly explains the large shares of households with female heads left behind. Nonetheless, family ties are important to migrants. For instance, 70 percent of Honduran returnees mentioned family reasons as their main motivation for returning to their home country. In addition, having a migrant member seems to affect the labor-market decisions of remaining

1 In a notable episode in June 2022, more than 53 migrants died of heatstroke and asphyxia inside a truck in Texas, United States.

2 The analysis of the wellbeing of migrants in transit countries are beyond the scope of this report.

household members. For all NCA countries of interest, heads of households with NCA migrants are less likely to be employed.[3] Overall, migrant households also have a lower share of employed members than non-migrant households.

In recent years, NCA migrants[4] in the United States have tended to arrive at a younger age and the share of female migrants has increased. The profile of NCA individuals who migrated to the United States has changed over the last two decades, according to information reported by NCA migrants themselves in U.S. household surveys. Indeed, the three-year cohort of migrants[5] from El Salvador, Honduras, and Guatemala who arrived in the United States by 2019 were aged in their early-20s, on average. This is younger than the 2010 cohort, who were in their mid-20s in the case of El Salvador and Honduras. In addition, the share of female migrants as a proportion of migrants has increased for El Salvador, Honduras, and Guatemala. Younger individuals and women are more prone to the dangers of irregular migration, which underscores the degree of vulnerability of NCA migrants traveling to the United States.

Overall, migrant households enjoy better living standards compared to non-migrant households. Multi-dimensional poverty rate is lower among migrant households in El Salvador, Guatemala, and Honduras. The largest gap is observed in El Salvador: the poverty rate among non-migrant households (29 percent) is almost twice as large as the rate (15 percent) among migrant households. In Guatemala and Honduras, by contrast, the gap is almost 5 percentage points and 9 percentage points, respectively. In addition, NCA migrant households are less likely to be monetary poor in El Salvador, Honduras, and Nicaragua[6]. Migrant households also have better access to basic services, such as sanitation and water, with the difference in respect of the latter being particularly marked. Furthermore, while most households (over 90 percent in all four NCA countries) have access to electricity, rates are even higher among migrant households. It is notable that migrant households are more likely to receive remittances, and for remittances to make up a higher share of their income. This may be one explanation for the differences observed between migrant and non-migrant households. Another is that migration is costly and migrants tend to come from the middle of the income distribution.

Moreover, the report explores quantitatively the main 'push factors' associated with migration from NCA countries. The decision to migrate is related to several factors that an individual faces in his or her country of origin, at the individual, local, and national level (push factors). Previous studies for Central America identify limited economic opportunities and a low standard of living as factors linked to the decision to migrate. Other cited push factors include violence, as well as natural hazards, usually linked to climate change. The report analyzes these factors for all four countries using detailed

3 In general, an employed person is someone who worked the previous week, or had a job to return to, or did any paid work (even if it was only for an hour).

4 Nicaragua was excluded from this analysis due to an insufficient sample size.

5 For the purpose of profile characterization, NCA migrants are those who moved from NCA countries to the United States in the three years up to the year of the survey, referred to in the report as 'three-year cohort migrants'. For example, if the survey was applied in 2019, migrants are those who arrived in the United States in the period 2017-2019.

6 Results for Nicaragua should be interpreted with caution because the 2021 Survey to Evaluate the Impact of Financial and Productive Interventions in Rural Areas is not representative at the national level nor at the department level (of the departments in which it was collected).

data at the municipal level. The results reveal options for enhancing life prospects in these countries and thus encouraging valuable human capital not to migrate.

The results of the empirical analysis indicate that NCA migrants come from the poorest municipalities but not from the poorest households. Migration seems to be an escape from low living standards in areas with scarce economic opportunities. Indeed, a 1-percent increase in the municipal poverty rate implies an increase in the probability of having (at least) a household member living abroad (migrant household) of 0.06 percentage points in Guatemala, 0.256 percentage points in El Salvador, and 0.155 percentage points in Honduras. At the same time, migration is costly and not everyone can afford the journey. Thus, the probability of having a migrant member is positively related to wealth: an increase in the asset index (wealth proxy) at the household level implies an increase in the probability of being a migrant household by 0.035 percentage points in Guatemala, 0.15 percentage points in Honduras, and 0.233 percentage points in El Salvador. Similar results were found for Nicaragua, but they are not statistically significant. These results are consistent with previous studies that conclude that migrants usually come from the middle of the income distribution, due to the associated costs.

In addition, the probability of having a migrant member is weakly correlated with the incidence or risk of natural hazard (in Honduras and Guatemala). The results of the empirical analysis also suggest that the incidence of natural hazards (in Honduras), as well as the overall risk (in Guatemala), are linked to migration, although to a lesser extent than economic factors. More specifically, one additional landslide per year in Honduras (at the municipal level) would increase the probability of being a migrant household by 0.01 percentage points, while an increase in the risk index for Guatemala of one unit (index ranges from 0 to 100) would increase this probability by 0.035 percentage points.

The empirical analysis does not support the hypothesis that higher levels of violence measured as homicide rates (and protests for Nicaragua) are associated with migration in the countries studied. More specifically, in the cases of Honduras and El Salvador, results suggest that there is no association between homicide rates (at the municipal level) and the probability of having a migrant household member. The same is true for Nicaragua with respect to the number of protests at the municipal level. In the case of Guatemala, the coefficient (of the homicide rate) is statistically significant but close to zero, suggesting a negligible correlation. Given that other studies (both quantitative and qualitative) have established a relationship between violence, crime, and migration, further research is warranted to disentangle this relationship as these factors undoubtedly play a major role in the everyday experience of NCA populations.

Finally, the report explores some of the 'pull factors' that seem to attract NCA migrants to the United States, the main destination for three of the four NCA countries (with Nicaragua the exception). Better living standards, as well as better employment opportunities, are among the reasons why the United States is attractive to migrants coming from Central America (pull factors). As reported by migrants' relatives in their countries of origin, 57 percent of Salvadorian migrants decided to leave their country due to limited economic opportunities. The study supports this hypothesis by quantifying the gaps in terms of access to certain basic services and by analyzing the differences in labor-market outcomes between NCA citizens who have migrated to the United States and those who have remained in

their countries of origin.[7] While family reunification has been highlighted as an important pull factor, this issue falls outside the scope of this report as a lack of data does not allow for a detailed examination.[8]

The empirical analysis shows that NCA migrants in the United States are positively selected among the population in their countries of origin. For NCA migrants in the United States, the average adult individual (i.e., age 18 years and above) from El Salvador, Guatemala, and Honduras is more educated than their national counterpart. In 2019, almost 77 percent of migrants from El Salvador, 55 percent from Guatemala, and 64 percent from Honduras had secondary or tertiary education. This contrasts with the average for residents in their countries of origin – namely, 42 percent in the case of El Salvador, 40 percent for Guatemala, and only 34 percent for Honduras. In addition, if NCA migrants (age 21 to 65 years old) had not migrated, they would have earned higher wages compared to residents. This result considers the characteristics of local labor markets in the NCA countries, plus the observable characteristics of migrants.

The prospect of better employment opportunities among NCA migrants (age 21 to 65 years old) seems to be fulfilled. It is in line with the fact that migrants are positively selected among the population in their countries of origin. The probability of being employed is higher for Salvadoran and Guatemalan migrants (approximately 75 percent in both cases) than their non-migrant peers (67 percent and 57 percent, respectively). In addition, NCA migrants from El Salvador, Guatemala, and Honduras were employed in sectors with higher productivity and value added, such as services and industry. Furthermore, for all four countries, NCA migrants earned more than three times what they would have earned if they had not migrated. Even though the gap has narrowed slightly in all countries other than Honduras over the past two decades, higher wage income likely remains a major pull factor.

Furthermore, NCA migrants enjoy better living conditions than NCA residents (age 21 to 65 years old). In the case of El Salvador, Guatemala, and Honduras, the average NCA migrant household has one room per person in the United States, while the average NCA non-migrant household has one room for every two members. Moreover, access to clean water and sanitation is higher among NCA migrants in the United States. In the case of Hondurans, for example, the gap in access to water and sanitation between migrants and non-migrants stands at 34 percentage points and 40 percentage points, respectively. In terms of connectivity, migrants from El Salvador, Guatemala, and Honduras residing in the United States are more likely to have a computer and an internet connection at home compared to residents in these countries. A sizeable gap in internet access of more than 50 percentage points in favor of migrants is also observed.

These results have several policy implications that can help to enhance the net benefits of migration from NCA countries, including improving the living standards and inclusive economic opportunities in the countries of origin. While the relationship between economic development and migration is complex, given that while increase incomes at homes makes emigration less attractive but also provides the financial means, better opportunities in the countries of origin reduce "desperate" migration. Improving the overall living conditions and providing inclusive economic opportunities in NCA countries increase the range of options for individuals, including the possibility

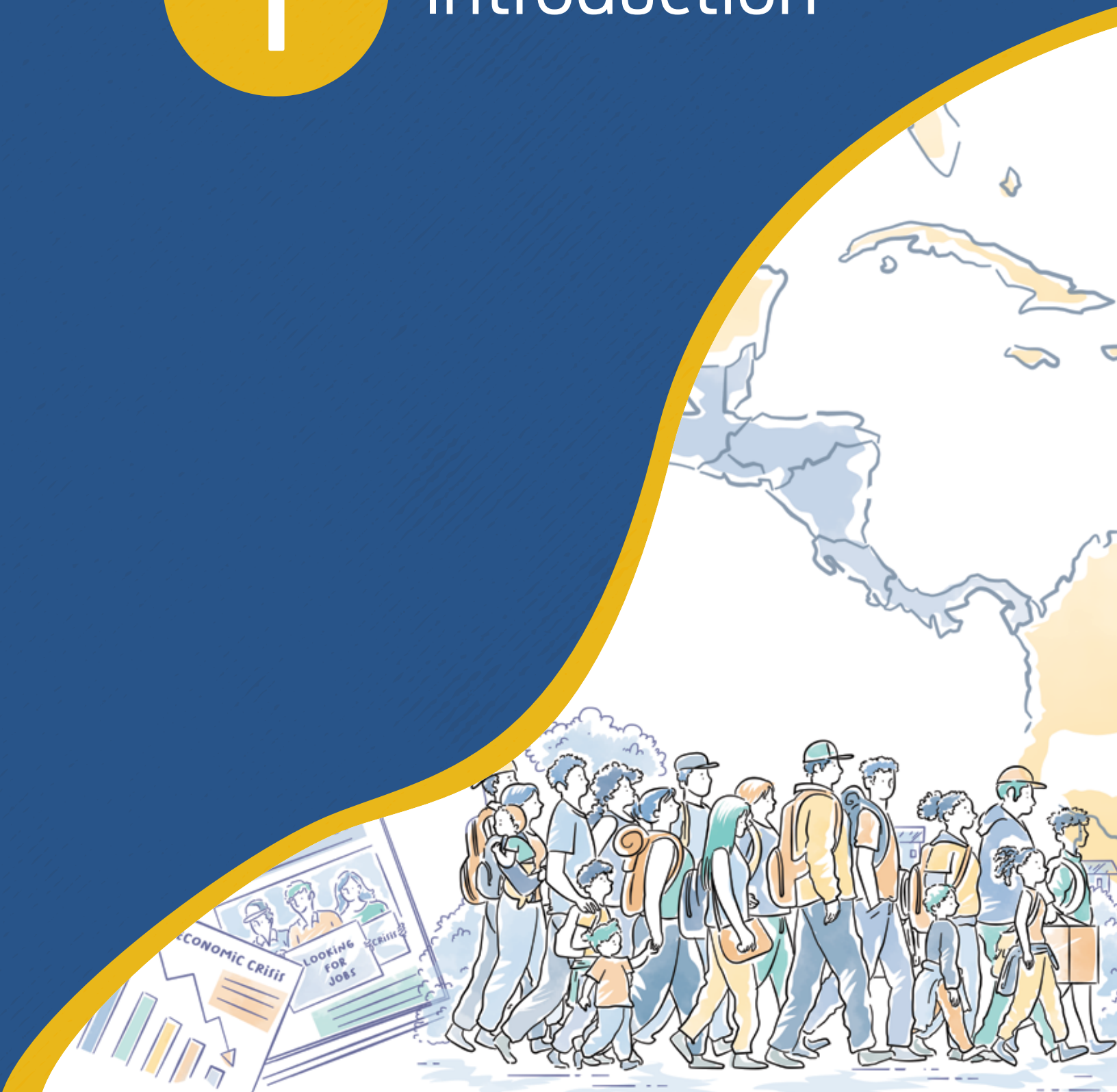
7 This can be considered as welfare differentials.

8 As a matter of fact, a forthcoming report underscores the role of family and community social networks as a main driver of migration in NCA countries (World Bank, forthcoming a).

to migrate internally (rural/urban migration). As a result, migration, if it takes place, occurs in better circumstances (World Bank, forthcoming d). It is also important to implement policies and programs to mitigate the risks to households presented by natural hazards in NCA countries, particularly in poor areas, where migration is more common.

At the same time, it is desirable to support regular, safe, and institutionalized migration. There are many reasons why it is likely that migration will not dwindle in the short and medium term. Northbound migration flows from NCA countries represent a historic phenomenon. In addition, the stock of NCA migrants in the United States has grown considerably in recent years, which in turn facilitates future migration. At the same time, it may take some time before there is a significant shift in the development path of NCA countries. Regular and temporary (circular) migration programs could be beneficial for migrants themselves, while also contributing to the economic development of both countries of origin and destination. Managed temporary labor migration offer a wealth of opportunities for a legal, regular and orderly migration. By connecting migrant workers to sectors with labor shortages through an institutionalized procedure, these programs can help to solve labor supply issues in the countries of destination through a safe and regular migration process. This requires developing robust migration sending systems in NCA countries, which includes strengthening the legal and policy frameworks, as well as the governance and institutional frameworks, and supporting policy dialogue amongst key actors, as a forthcoming World Bank Report describes in detail (World Bank, forthcoming c).

1 Introduction



As is well known, migration flows have non-trivial consequences for sending, transit, and destination countries, with recent unprecedented levels of migration in Central America placing the issue front and center on national and international policy agendas. While efforts by individual migrants to cross countries undetected in hazardous conditions have long existed, the mass movement of groups of migrants ('migrant caravans') have underscored the scale of the issue. Since 2018, large groups of individuals from Central America have been arriving at the U.S.-Mexican border after crossing Mexico and parts of Central America. Travelling in groups is seen as a safer alternative to facing the many dangers along the route alone, including kidnapping by drug gangs and human traffickers. Yet, even in groups, they face difficult conditions, with weeks of walking that leave some dead and many exhausted, sick, hungry, without shelter, and with limited access to health care (IFRC, 2019).

Migration flows from Northern Central America with the United States as intended destination, have accelerated in recent years. The number of people born in Northern Central America (NCA) countries – defined as El Salvador, Guatemala, Honduras, and Nicaragua for the purposes of this study – who now live in the United States increased by two percent annually between 2010 and 2019 (Figure 1), reaching close to 3.5 million.[9] By 2019, NCA-born individuals comprised 7.8 percent of the total foreign-born population of the United States (Figure 2), an increase from 7 percent in 2010. Migratory flows, which historically go back to the second half of the twentieth century, have accelerated in recent years. The average annual growth rate of NCA-born migrants residing in the United States stood 2.8 percent between 2016 and 2019, up from 2.5 percent between 2012 and 2015.

Migration flows declined significantly in 2020 due to the COVID-19 pandemic, but the evidence suggests that they had returned to above pre-pandemic levels by the following year. Migrant encounters at the southern border of the United States have long been a proxy for migration flows into the country.[10] Not surprisingly, migrant encounters came to a standstill in 2020 (as did all socio-economic activities across the United States) as a consequence of the global pandemic (Figure A.1 in Annex A). However, data for 2021 suggest that more people tried to migrate that year than before the onset of the pandemic. The average monthly number of migrant encounters from Central America at the U.S. border in the final quarter of 2021 was more than four times that of the same period in 2019 (Figure A.1 in Annex A).

The number of NCA migrants residing in the United States as a proportion of the total national population in their countries of origin is considerable. This is particularly true for the case of El Salvador, where more than one out of five (21.4 percent) of the population resided in the United States in 2019 (Figure 3). Thus, El Salvador is ranked as the 50th country with the highest population

9 The Census Bureau collects data from all foreign-born individuals who participate in its censuses and surveys, regardless of legal status. Thus, while unauthorized migrants are included in the Census Bureau's estimates of the total foreign-born population, it is not possible to distinguish unauthorized migrants from any other legal status category. Also, 2019 is the latest year for which data are available.

10 These encounters include three main scenarios: individuals who are met by authorities at ports of entry and who are seeking lawful admission into the United States but are judged to be inadmissible; individuals who present themselves for humanitarian protection under U.S. law; and individuals who withdraw an application for admission and return to their countries of origin within a short timeframe. They also include apprehensions, which refers to the physical control or temporary detainment of a person who is not lawfully in the United States and who may potentially face arrest as a result.

abroad in the world (Migration Policy Institute, 2020). For Guatemala, Honduras, and Nicaragua, the stock of individuals abroad is still sizeable, at 6.7 percent, 7.7 percent, and 3.9 percent of their total national populations, respectively, according to data from the U.S. Census Bureau. These numbers, of course, represent a lower bound for the number of people who have left these countries, given that many more do not succeed in crossing into the United States and often remain in transit countries (such as Mexico) as a consequence.[11]

The United States remains the top destination for NCA migrants, with the exception of Nicaraguans, whose main destination is Costa Rica. Figure 4 shows the evolution of the share of migrants from each NCA country in the United States compared to the rest of the world. In 2020, nine out of every 10 Guatemalans living abroad were residing in the United States. El Salvador presents a similar figure (88 percent), followed by Honduras (78 percent). The share of Nicaraguan immigrants in the United States is much smaller, at 36 percent, reflecting the relevance for them of other destination countries, particularly Costa Rica (OCDE, 2017 and Orozco, 2021).[12] Nevertheless, with more than a third of the entire Nicaraguan population abroad in the United States in 2020, the magnitude is still substantial and has grown drastically since 2018 (Figure 4).

Migrant flows from NCA countries have not only intensified in recent years, but the profile of migrants has also changed and continues to do so. These changes have taken place in two phases. The first saw a shift from single adults to family units, specifically in the years preceding the pandemic. With more families and children migrating, so too did the degree of migrants' vulnerability increase. By 2019,[13] for instance, the number of individuals apprehended with a family member by the U.S. Border Patrol at the Southwest border comprised 70 percent of all encounters. This compares to a mere 35 percent in 2016 (Figure A.2 in Annex A).[14] The second phase occurred after the outbreak of COVID-19 and has seen a shift back to pre-pandemic patterns. In both 2021 and 2022, single adults returned to being the most common category of encounters (Figure A.2 in Annex A).

11 The number of deported nationals from NCA countries from Mexico has surpassed that of the United States since 2015 (International Crisis Group, 2017).

12 Nicaraguan migration into Costa Rica dates back to the nineteenth century when the development of banana plantations in Costa Rica drew foreign labor. This mainly came from Nicaragua and Jamaica (OECD, 2017).

13 Financial year 2019 for the U.S. government, which goes from October 2018 to September 2019.

14 Financial year 2016 for the U.S. government, which goes from October 2015 to September 2016.

FIGURE 1:
INDIVIDUALS BORN IN NCA IN THE UNITED STATES

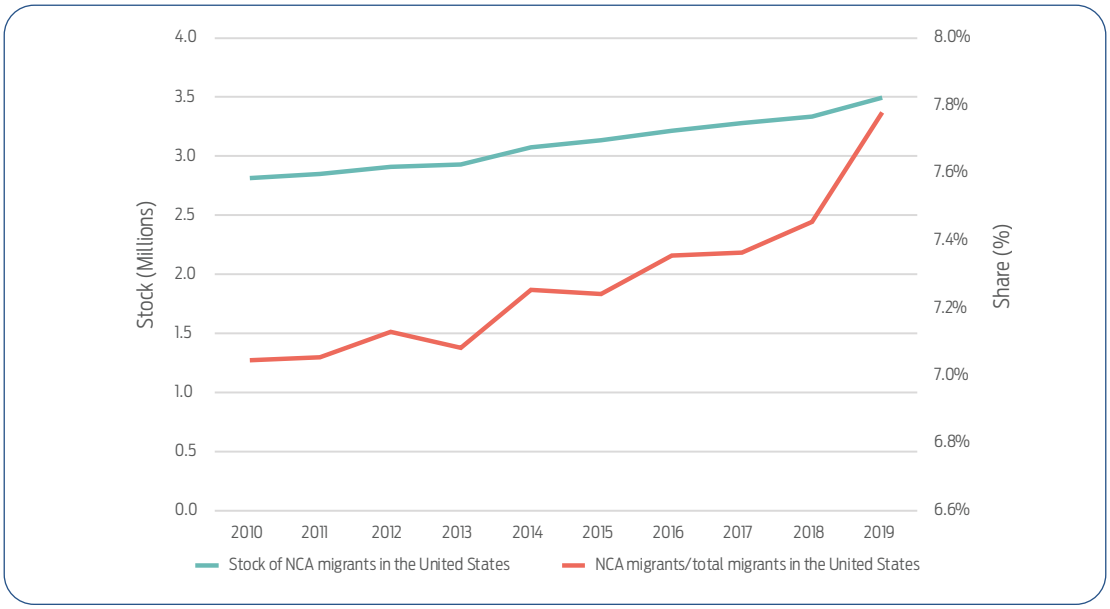
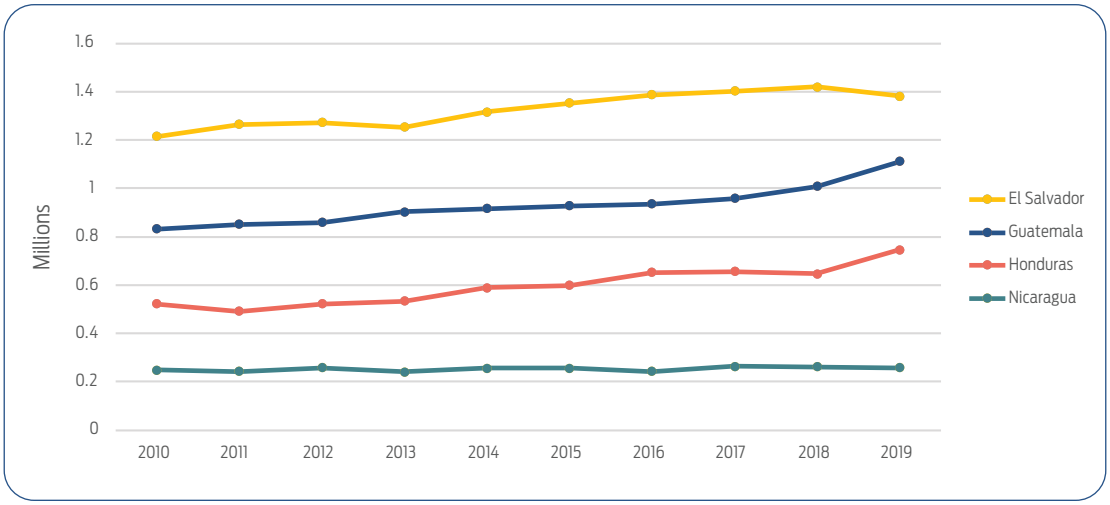
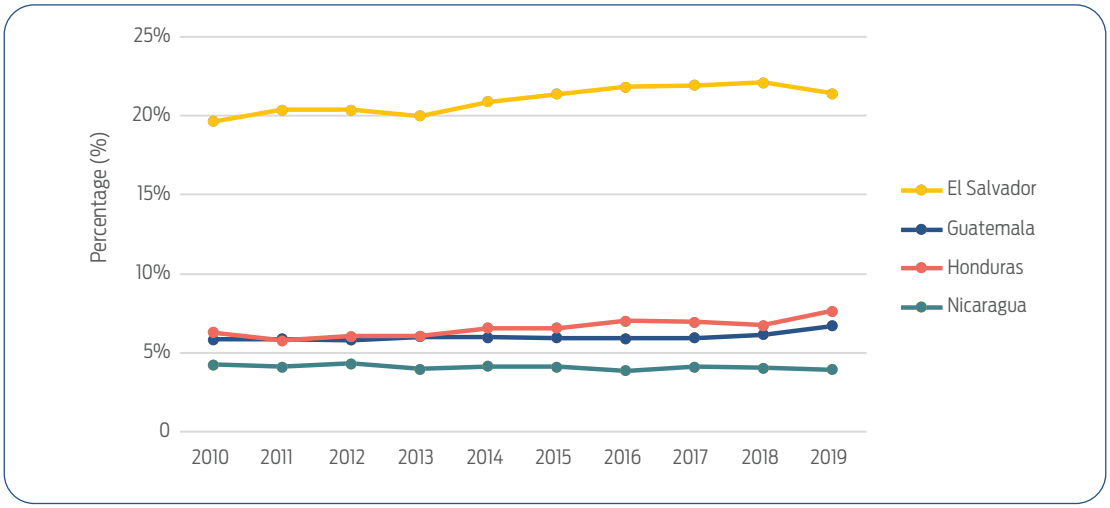


FIGURE 2:
STOCK OF FOREIGN-BORN POPULATION IN THE UNITED STATES FROM NCA, BY COUNTRY



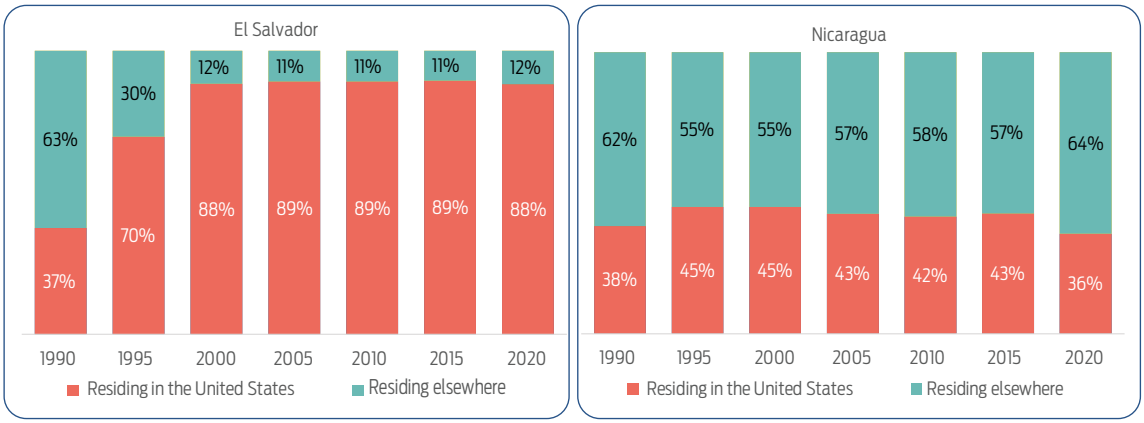
Source: Author's calculation using the American Community Surveys (ACS) from the U.S. Census Bureau. Note: The U.S. Census Bureau uses the term 'foreign-born' to refer to anyone who is not a U.S. citizen at birth. This includes naturalized U.S. citizens, lawful permanent residents (immigrants), temporary migrants (such as international students), humanitarian migrants (such as refugees and asylees), and unauthorized migrants.

FIGURE 3:
STOCK OF INDIVIDUALS BORN IN NCA COUNTRIES LIVING IN THE UNITED STATES, AS A SHARE OF EACH COUNTRY'S POPULATION



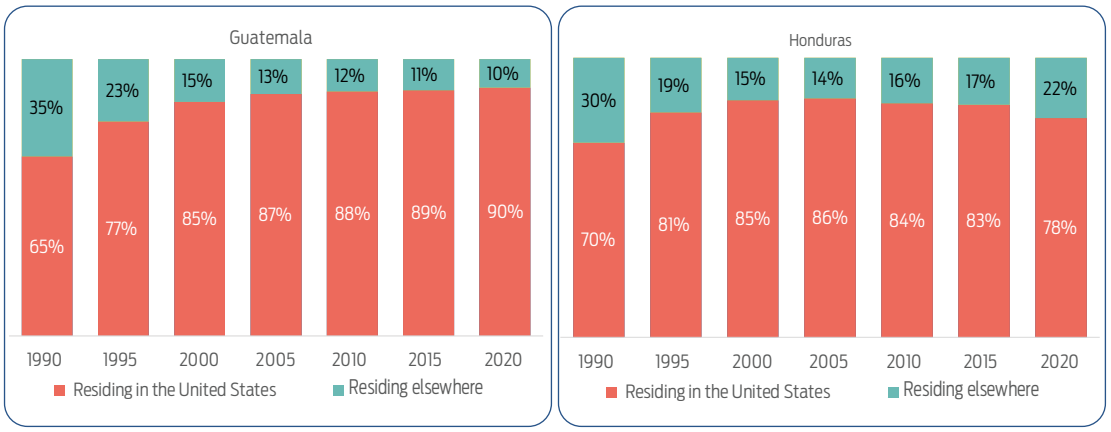
Source: Author's calculation using the American Community Surveys (ACS) from the U.S. Census Bureau. Note: The U.S. Census Bureau uses the term 'foreign-born' to refer to anyone who is not a U.S. citizen at birth. This includes naturalized U.S. citizens, lawful permanent residents (immigrants), temporary migrants (such as international students), humanitarian migrants (such as refugees and asylees), and unauthorized migrants.

FIGURE 4:
TOTAL MIGRANT STOCK FROM NCA COUNTRIES LIVING ABROAD – SHARE IN UNITED STATES VS. ELSEWHERE (1990-2020)[15]



Source: Authors' calculation from United Nations Department of Economic and Social Affairs.

15 In estimating the migrant stock, the methodology of United Nations Department of Economic and Social Affairs considers international migrants as those who are foreign-born or, for our purposes, who were born in an NCA country but who live in another country. Where place of birth information is lacking, information on the country of citizenship is used as the basis for the identification of international migrants. This implies that in countries where citizenship is conferred on the basis of jus sanguinis, people who were born in the country of residence may be included in the number of international migrants, even though they were not born abroad. Conversely, persons who were born abroad and who naturalized in their country of residence would be excluded from the stock of international migrants when using citizenship as the criterion to define international migrants.



Source: Authors' calculation from United Nations Department of Economic and Social Affairs.

Migration can have considerable benefits for individuals (migrants), sending countries, destination countries, and even transit countries. Benefits for migrants may include higher wage incomes and better access to public services, such as education and health services. Sending countries may benefit through remittances, investments, and trade, as well as the transfer of skills and technology; all factors that can spur growth and reduce poverty (Aguilera et al., forthcoming; Clemens et al., 2016). For example, in 2020, remittances made up 15 percent of the gross domestic product (GDP) in Guatemala and Nicaragua, and 24 percent for Honduras and El Salvador (Figure A.3 in Annex A). Destination and transit countries can benefit from migration through increased labor supply (particularly in sectors for which labor is scarce, such as the healthcare and care industry), skilled workforce, a larger tax base, and increased contributions to social security systems (World Bank, 2019). Estimates suggest that migrants contributed nearly 10 percent to the global GDP in 2015, the majority of which was generated in North America (McKinsey Global Institute, 2016).

Nonetheless, migration can also be costly for those who decide to migrate, as well as for the countries where they arrive (or transit through) and those that they leave. Migrants themselves bear financial and psychological costs when they leave relatives behind. Also, the journey may represent a life-threatening and perilous experience (World Bank, 2019). According to the IOM Missing Migrants Program, in the last two years, close to 1,000 migrants have been reported dead or missing in North America, more specifically in route to the US.[16] Female and child migrants are especially vulnerable to violence, exploitation, and abuse. In host countries, immigration may exert pressure on existing public services, leading to fiscal pressure. In turn, this may trigger social pressures arising from the perceived 'burden' and negative effects of migrants (Aguilera et al., forthcoming; González et al., forthcoming). For sending countries, migration can lead to a 'brain drain' as well as to labor supply shortages in key occupations, although this varies depending on the magnitude and type of flows experienced (World Bank, 2019).

16 IOM Missing Migrants Project can be found here: https://missingmigrants.iom.int/region/americas.

Adequate and well-designed public policies and programs can contribute to maximize the net benefits of migration. Better economic opportunities at homes discourage migration but also facilitate the financial means. However, improving the overall living conditions and providing inclusive opportunities increase the range of options for individuals, reducing "desperate migration"; that is, voluntary migrants for which circumstances at home are inviable. Similarly, mitigation and adaption policies can decrease the vulnerability of NCA countries to extreme shocks related to climate change. Reducing violence levels (including Gender Based Violence), meanwhile, can improve public safety, thereby discouraging nationals from leaving. Moreover, regular labor agreements can promote a beneficial migration experience by fulfilling labor demand needs in destination countries as well as promoting knowledge transfers (training and skills) that could be beneficial upon an eventual return.

Given the rapid changing nature of migration, the success of these policies hinges on an up-to-date understanding of *who migrates and why, plus which migrants return and why*. Recent work on migration in Central America has focused on countries whose context differs from the NCA countries. Where evidence exists, moreover, it is predominantly drawn from older data (Arayavechkit et al., forthcoming). This report explores these questions with the latest data available. By leveraging the most recent data from all four NCA countries, it highlights features that are unique to each country context, while also exploring commonalities that may be important for the design of suitable policies. It must be noted that the report focuses on international migrants, defined by the International Organization of Migrants as individuals who move away from their place of usual residence and cross an international border. They may do so temporarily or permanently, and for a variety of reasons. Their legal status is not material to the definition. The phrase 'international migrant' leaves aside internal migration. Moreover, the analysis of the well-being of migrants in transit countries is beyond the scope of this report.

This report examines the socio-economic profiles of households with migration experience in El Salvador, Guatemala, Honduras, and Nicaragua, as well as the profiles, when possible, of migrants themselves (as reported by household members in the countries of origin) and of returnees. It presents comprehensive and up-to-date socio-economic profiles of households with migration experience (those with a current international migrant household member) and migrants,[17] from the perspective of those in the country of origin. The report compares welfare indicators such as living standards (e.g., income and poverty) and access to basic services for migrant and non-migrant households. It also depicts the main characteristics of returnees in Honduras and Nicaragua, with an emphasis on the main reasons for their return.

Further, the report simultaneously explores three push factors that have been traditionally linked to migration flows in these countries. Specifically, it explores the relationship of migration with: (i) limited economic opportunities and low living standards in the communities of origin (Cheatham, 2021); (ii) natural hazards and extreme weather events, such as droughts and flooding, usually linked to climate change climate (Bermeo and Leblang, 2021; Ibañez at. al, 2021); and (iii) violence, which can affect migration both directly (Halliday, 2006; Inkpen, Pitts, and Lattimore, 2021; Clemens 2021) and indirectly by reducing safe locations for internal migration caused by climate change (Bermeo and Leblang, 2021). For each country, we use data at the municipal level, to capture and exploit the geographical variation of the phenomenon.

17 This is only possible for El Salvador, Guatemala, and Nicaragua.

The maximization of the net benefits of migration also requires understanding what are the main factors that attract NCA migrants to its main destination (pull factors), the United States, with the most recent available data. This includes the exploration of recent changes in the profiles of migrants originating from NCA countries to the United States,[18] which can help guide interventions such as regular labor programs. The report also explores several economic pull factors, such as differentials in wages, living standards, and access to services, with a view to shedding light on the economic benefits of migration (Clemens et al., 2016; Ortega & Peri, 2013). While the existence of social and filial networks also contributes to migration (family reunification is often cited as one of the main pull factors and a recent report documents the importance of this factor in NCA countries - World Bank, forthcoming a), such networks are beyond the scope of this report due to data limitations.

The report is organized as follows. Section 2 seeks to set the issue of migration in context by providing a brief socio-economic profile of the four NCA countries of interest – namely, El Salvador, Guatemala, Honduras and Nicaragua. A detailed description of the data and definitions used is provided in Section 3. Section 4 offers comprehensive and up-to-date socio-economic profiles of households with migration experience in the four NCA countries. Section 5 presents empirical analysis that explores the correlation between migration and those push factors that are mostly commonly identified in the economic literature as relevant in the NCA context and for each particular country. Section 6 explores the change in profile of NCA migrants to the United States over the last two decades and studies the main factors attracting migrants (pull factors), such as employment and living conditions. Finally, Section 7 presents the report's main conclusions and provides some policy implications.

18 Net migration flows are measured as changes in the migrant stock over a specific period of time. This captures both inflows and outflows. Available U.S. data only shows the stock of migrants in the United States from each of the NCA countries in a specific year. From this, the net flow can be calculated as the change in the stock between two years. It is not possible with the U.S. data at hand to estimate inflows into the United States (i.e., outflow from countries of origin) or outflow from the United States (i.e., inflow into the countries of origin). It is also not possible to estimate inflow and outflow using the NCA household surveys since the questions on migrants are based on status at the time of the survey i.e., a household is considered a migrant household only if it has a migrant at the time of the survey.

2 Specific country contexts

This section provides the country context of each of the four NCA countries covered in this report: El Salvador, Guatemala, Honduras, and Nicaragua. It offers a general overview of the economic and social situation of the country, including an outlook of violence, and a characterization of vulnerability to natural hazards. It provides important background information to better understand the context in which nationals make the decision to migrate, sometimes under dangerous and uncertain circumstances. Overall, these four NCA countries are characterized by high poverty rates (the highest in the Latin America and the Caribbean Region, only after Haiti and with the exception of El Salvador), low living standards, high social and economic exclusion for some segments of the population, and wide spatial and socio-economic gaps in terms of access to services and economic opportunities. Given their geographical location, all of these countries face a high risk of natural hazards, including droughts, floods, and hurricanes. Moreover, Central America is one of the most violent regions in the world (with the exception of Nicaragua), as a result of a long history of conflict and political instability. In all countries, development is hindered by low institutional capacity and high levels of corruption, coupled with mistrust of the government and its institutions.

2.1. EL SALVADOR

El Salvador continues to experience significant vulnerabilities despite a notable decline in poverty since 2012, in part due to the regressive effects of the COVID-19 crisis in 2020. By 2021, the country's population had reached 6.5 million, with a GDP per capita of $4,408. Despite low economic growth, the poverty rate (under the $5.5 2011 Purchasing Power Parity [PPP] poverty line) declined by 17.1 percentage points between 2012 and 2019, reaching 22.3 percent.[19] Inequality has also declined, and the country is now considered one of the least unequal countries in the Latin America and Caribbean region. Despite recent improvements and relatively low inequality, the middle class has not grown. The country has also found it difficult to increase resilience to shocks and move away from poverty. Many households that have escaped poverty are now classified as vulnerable rather than middle class: the share of the population classified as vulnerable was 48 percent in 2019, the largest in the region. There is great variation in terms of poverty by municipality, with poverty incidence varying from 3 percent (San Rafael) to 65 percent (Meanguera del Golfo). Overall, the national average is 22.3 percent. Finally, access to high-quality jobs has decreased, especially among those at the bottom of the distribution. Labor force participation rates also fell, with female labor force participation continuing to be among the lowest in the region.

Moreover, El Salvador faces one of the highest levels of disaster risk in the world. It is the driest country in Central America, with some regions suffering from water shortages. However, this does not prevent some areas from experiencing severe rainfall, floods, and landslides. Natural hazard risks are associated with the country's geographical conditions. A startling 88.7 percent of its territory and 95.4 percent of its population (including 1.37 million poor) are at risk of disasters. The country

19 The international poverty lines will be adjusted in September of 2022 to reflect changes in prices across the world. With the new prices, the global poverty line of $1.90 (2011 PPP) a day is revised to $2.15 (2017 PPP) a day. The international poverty line is revised from $3.20 (2011 PPP) a day to $3.65 (2017 PPP) a day for lower-middle-income countries, and from $5.50 (2011 PPP) a day to $6.85 (2017 PPP) a day for upper-middle-income countries.

was placed towards the top of the Climate Risk Index, for instance.[20] On the adaptation-oriented ND Gain Country Index, meanwhile, El Salvador ranked 108th out of 182 countries in 2019 (the lower the ranking, the higher the risk).[21] The frequency and intensity of environmental and climate-related shocks have increased in recent decades and are expected to continue rising. Droughts mainly affect the southeastern region of the country, negatively impacting agricultural activities and increasing the risk of fires. In addition, rainfall and earthquakes have historically been key landslide triggers in El Salvador, a hazard mainly affecting municipalities in the southwest of the country.

Despite some positive trends, crime and violence in El Salvador remain among the highest in the world, with women at particularly high risk. The homicide rate is still at the top of the global ranking and more than three times the average for Latin American and the Caribbean. Also, women are disproportionately exposed to violence: the rate of female violent deaths is one of the highest globally (Navarro Mantas et al. 2015). The dynamics underlying gender-based violence have roots that differ from the country's overall crime and violence: patriarchal attitudes and stereotypes fuel the systematic targeting of violence against women and girls (Robayo-Abril & Chelles 2022). Other crimes are also highly prevalent, including theft, robbery, and extortion. The dynamics of gang violence persist and augment the exclusion of certain groups, either by association or through direct exposure to threats in violent hotspots (International Crisis Group, 2020).

2.2. GUATEMALA

Guatemala is a country characterized by high poverty rates (the third in Latin America and the Caribbean) and large regional disparities in terms of household welfare. In 2021, its GDP per capita reached $5,025 (the highest amongst the countries of the study) and its total population stood at 17.1 million people. While data limitations greatly complicate the recent analysis of poverty dynamics in Guatemala,[22] microsimulations indicate that 47.8 percent of the population in 2019 was living in poverty (under the $5.5 2011 PPP poverty line). This is slightly down from 2014, when the figure measured 49.1 percent. Rural areas, the northern and northwest regions, and indigenous peoples and Afro-descendants continue to exhibit higher levels of non-monetary poverty, lower living standards, and more limited economic opportunities than the rest of Guatemala. This is reflected in the fact that human capital indicators in departments such as Totonicapán and Huehuetenango are more closely comparable to Sub-Saharan African countries such as Mozambique and Nigeria than to other Latin American and Caribbean countries. Moreover, since 2015, most employment growth has been informal. Meanwhile, labor income has fallen across all education levels, with levels for the most educated falling fastest. An unfavorable business climate has long inhibited the growth of formal employment, forcing a large share of workers into informal jobs that are both tenuous and low quality.

20 https://www.germanwatch.org/en/cri

21 The Notre Dame-Global Adaptation Index (ND-GAIN) Country Index is an index that shows a country's current vulnerability to climate disruptions. ND-GAIN collects information on 74 variables to form 45 core indicators to measure vulnerability and readiness of 182 UN countries from 1995 to the present. More information: https://gain.nd.edu/our-work/country-index/.

22 The most recent Living Standards Measurement Survey (ENCOVI) was collected in 2014, making it the latest year with an official poverty estimate.

Like its neighbors, Guatemala is highly vulnerable to natural hazards, usually linked to climate change. Guatemala is highly exposed to extreme weather events and other natural hazards. It ranked 16th out of 181 countries on the 2021 Climate Risk Index (with 1 being the most at risk). In 2020, Hurricanes Eta and Iota caused extensive flooding, dozens of landslides, and numerous mudflows. These badly affected 16 of Guatemala's 22 departments, with damages and losses close to 1 percent of the country's GDP, the largest since Tropical Storm Agatha in 2010. Over the last decade, weather patterns have become more extreme, with a greater frequency of droughts and floods (IPCC, 2014). Guatemala's vulnerability to a range of climate change phenomena is increasing. These include rising sea levels, flooding in low-lying areas, coastal erosion, continued rise in average temperatures, the intensification of heatwaves, and increases in average precipitation (The Dialogue, Leadership for the Americas, 2021).

Moreover, Guatemala is among the top ten violent countries in the Latin American and Caribbean region. In 2021, Guatemala had a rate of 16.5 homicides per 100,000 people. The homicide rate has more than halved since 2012, primarily due to a drop in the male homicide rate.[23] Even so, the overall security situation has not greatly improved. In fact, the homicide rate in Guatemala City remained alarming high in 2018, at 42.5 deaths per 100,000 people.[24] Crime and violence continue to be carried out by a multitude of criminal groups, ranging from the very sophisticated to the rudimentary. Among the more infamous of these gangs are the Mara Salvatrucha (MS-13) and Barrio 18.[25] Gangs are almost exclusively an urban phenomenon, concentrating in Guatemala City and in nearby cities.

2.3. HONDURAS

Honduras is characterized by high poverty and inequality levels, which have remained stagnant in the last decade despite higher-than-average GDP growth. With a GDP per capita of $2,831 and a population of 10.1 million in 2021, poverty reduction was relatively stagnant from 2011-2019 and not commensurate with growth rates that were consistently higher than the rest of the region. Nearly half of the Honduran population (49 percent) was living on less than $5.50 (2011 PPP) per day in 2019. This exceeded the average for Latin American and the Caribbean in 2019 by 26.6 percentage points and the Central American average for the same year by 18.6 percentage points (the respective incidence was 22.4 percent and 30.4 percent). The COVID-19 pandemic, coupled with Hurricanes Eta and Iota, increased official poverty from 48 percent in 2019 to an estimated 55 percent in 2020. Hondurans have unequal access to fundamental services, particularly along the urban-rural dimension. This prevents the development of human capital and negatively influences the skill level of the workforce, which accentuates inequality. Rural households in Honduras are less likely to accumulate human capital and to access to government services. Finally, structural differences in the country's urban and rural labor markets result in considerable wage differentials that have grown recently.

23 The female rate has declined more slowly.

24 Insight Crime (2019). Capital Murder: 2019 Homicide Rates in Latin America's Capital Cities. Retrieved from https://insightcrime.org/news/analysis/2019-homicides-latin-america-capital/.

25 Insight Crime (2017). Guatemala Profile. Insight Crime. Retrieved from https://www.insightcrime.org/guatemala-organized-crime-news/guatemala/

Honduras is also highly vulnerable to natural hazard risks, as shown by different measures. More than half of the population was exposed to natural hazards during the three years preceding to 2019 (World Bank, forthcoming b). Honduras ranks 139th out of 182 countries on the ND-Gain Country Index, which measures a country's vulnerability to climate change and its readiness to face it. The country's high ranking is related to a climate-change induced reduction in cereal yields, its low agricultural technological capacity, a low dam storage capacity, a high dependency on natural capital, and a high dependency on imported energy (ND-Gain, 2022). Honduras' northern region is particularly prone to floods and landslides, in addition to the occurrence of hurricanes, due to its proximity to the coast.

In terms of violence, while the international homicide rate has decreased in Honduras since 2012, other indicators such as gang violence and drug trafficking show a deterioration. Historically, the country has been characterized by widespread violence. In 2014, in fact, Honduras was considered the most violent nation not at war in the world (Insight Crime, 2016). While the homicide rate has declined for both men and women since 2012, gender-based violence remains high. More than one fifth (21 percent) of Honduran women suffer gender-based violence at least once during their life, a value higher than that in Chile, Paraguay, Uruguay, Mexico, and Guatemala (OECD, 2022). The overall economic costs of crime and violence in the country are estimated to be 14 percent of the country's GDP (SCD Update, 2022) and Honduras ranked 10th on the Global Organized Crime Index in 2021 (Global Initiative, 2021).

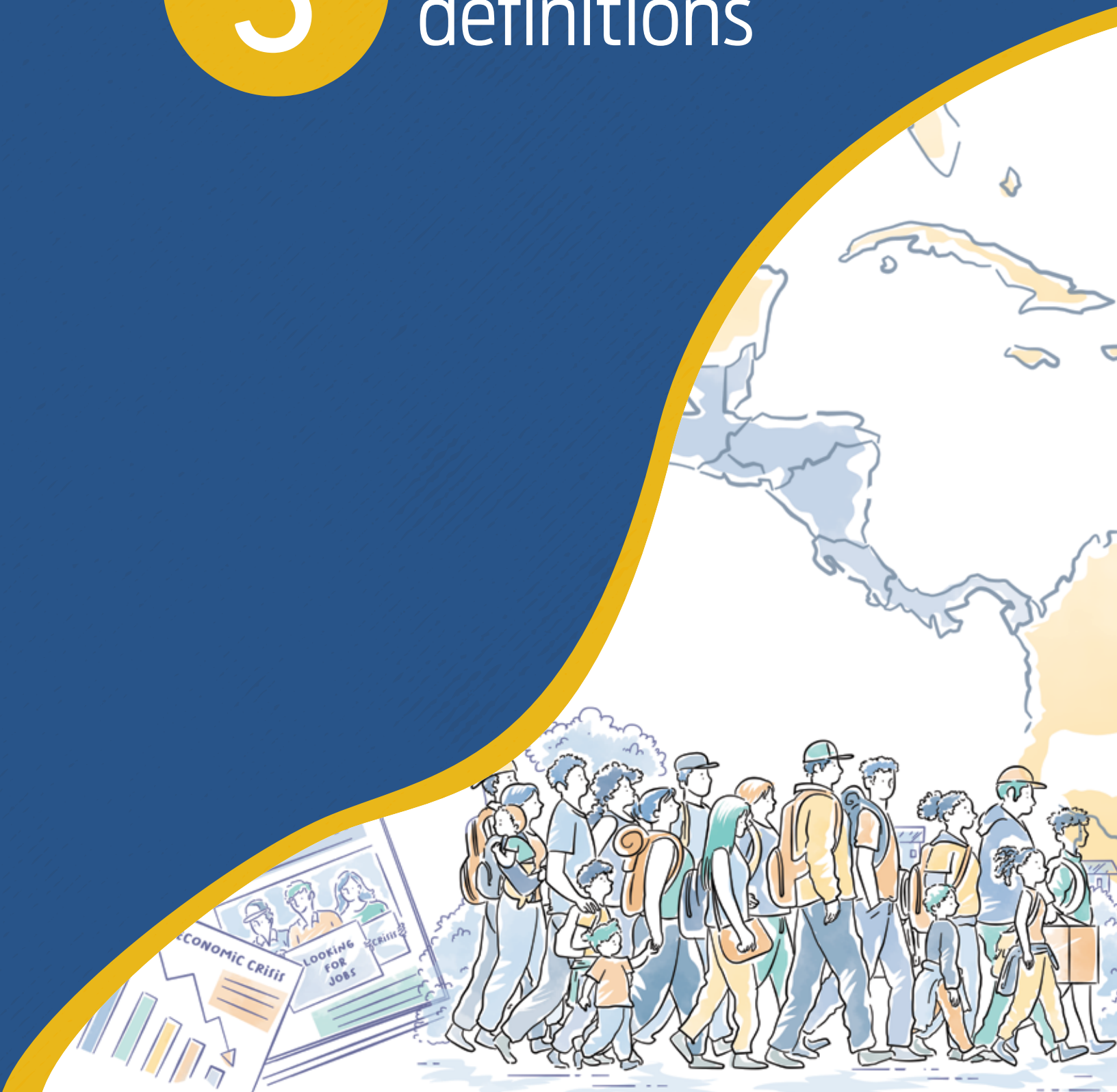
2.4. NICARAGUA

Nicaragua is one of the poorest countries in Latin America and the Caribbean, with a population of 6.7 million and a GDP per capita of $2,091 in 2021 – the second lowest in the region. The country enjoyed a steady GDP growth of 4 percent on average between 2000 and 2018. Poverty, measured at $5.50/day in 2011 PPP, declined considerably between 2005 and 2014, dropping from 54.3 percent of the population to 35.4 percent. This reduction was driven mostly by growth in rural areas. Inequality, as measured by the Gini index, decreased from 0.49 to 0.44 between 2005 and 2009 but increased to 0.46 in 2014. While Nicaragua experienced years of relative political stability, a series of unpopular pension reforms announced by the government in April 2018 triggered mass protests and social unrest across the country. The protests resulted in violence and in the imprisonment of political dissidents. Between 2018 and 2019, approximately 88,000 Nicaraguans fled the country (Inter-American Commission on Human Rights, 2020). The political crisis revealed the country's institutional fragilities, prompting capital flight and reversing gains in poverty reduction.

Such fragilities were exacerbated by the COVID-19 pandemic. The Nicaraguan economy, which had begun to show signs of an incipient recovery in the first two months of 2020, contracted for a third consecutive year, shrinking by 1.8 percent. This was primarily due to rising uncertainty over the evolution of the health crisis, the domestic spread of the virus, voluntary private sector shutdowns, and plummeting tourism. A final blow to the economy and welfare came at the end of 2020 when two major hurricanes, Eta and Iota, hit the Caribbean Coast in rapid succession. Modeled estimates show that poverty and inequality increased substantially as a result. There has been a gradual recovery in growth and poverty since 2021, but the recovery is not complete.

Nicaragua is a high-risk country in terms of exposure to natural hazards but has traditionally been one of the least violent countries in the Latin American and Caribbean region. In fact, it is the world's second most sensitive country to hurricanes and tropical storms and the world's thirtieth most vulnerable country to earthquakes. Its coasts are both a destination and a crossroads for hurricanes and tropical storms that originate in the Caribbean and the Atlantic Ocean. In addition, the country is located in one of the most active seismic regions in the world, which gives rise to earthquakes that mainly affect the center of the country. Finally, its western coastline forms part of the Dry Corridor in Central America and thus is prone to constant droughts. Natural catastrophes have occurred often in Nicaragua in the past, although their incidence has been increasing over recent decades. In terms of violence, while some local gangs and transnational crime have a foothold in the country, homicide and crime rates are far from those experienced by its Central American neighbors.

3 Data and definitions



This study combines a wide variety of data sources to characterize migrant households (those with migrant household member), returnees, and migrants, as well as to explore the main push and pull factors of migration in NCA countries. It draws on the most recently available sources (both in the countries of origin and in the United States as the main destination), such as household surveys, population censuses, and administrative data at the municipal level. Household surveys and censuses allow for a depiction of the socio-economic characteristics of households with migrant experience in countries of origin and also of migrants. This depiction is built on the information reported by migrant household members in the countries of origin and migrants themselves at their destination. When complemented by administrative data and other municipal-level indicators for NCA countries, these surveys enable a detailed exploration of the push factors behind migratory flows in countries of origin. These factors mainly comprise socio-economic conditions and natural hazards, along with violence. At the same time, these household surveys allow a comparison of economic opportunities and living conditions between NCA migrants and residents in NCA countries, thus shedding light on the pull factors that attract them to the United States.

The analysis in Section 4, which profiles NCA migrant-sending households and NCA migrants, relies on household surveys and a population census (for more details, see Table B.1 in Annex B). In the case of El Salvador, the analysis relies on the 2020 Multipurpose Household Survey (*Encuesta de Hogares de Propósitos Múltiples*), which was collected by the General Directorate of Statistics and Censuses between January and December 2020. The nationally representative survey monitors socio-demographic and labor indicators, as well as migration-related topics, with an unweighted sample of 10,900 households and 37,030 individuals.[26] For Honduras, it relies on the 2019 Multipurpose Household Survey (*Encuesta Permanente de Hogares de Propósitos Múltiples*), which was collected by the National Statistics Institute between June and July 2019. It assesses and quantifies the socio-economic conditions of the population, including information on the following themes: demographics, migration, education, household composition, housing, income, labor market by gender, people with employment problems, child and youth labor, and poverty. This survey is nationally representative, with an unweighted sample of 88,632 individuals in 21,245 households.[27]

Unlike El Salvador and Honduras, the latest household survey available for Guatemala and Nicaragua dates from 2014. Consequently, the analysis for Section 4 relies on the 2018 Population Census for Guatemala (*Censo Población y Vivienda 2018*), which was collected by the National Statistical Office in 340 municipalities between July and September 2018.[28] Covering the entirety of the country (and its population), it contains basic socio-economic indicators and includes an accurate report of nationals residing abroad. In the case of Nicaragua, the analysis is based on the 2021 Survey to Evaluate the Impact of Financial and Productive Interventions in Rural Areas of Nicaragua (*Encuesta para Evaluar el Impacto de Intervenciones Financieras y Productivas en Zonas Rurales de Nicaragua*), implemented by the World Bank and Innovations for Poverty Action (IPA) in 2021 as a follow-up survey for an impact evaluation. This survey covered around 1,700 rural households in three departments (Boaco, Jinotega,

26 Resulting in an expanded coverage of 1,871,478 households and 6,321,044 individuals.

27 Resulting in an expanded coverage of 2,170,969 households and 8,983,278 individuals.

28 https://www.censopoblacion.gt/

and Matagalpa) and one autonomous region of Nicaragua (RACCS), and included modules on employment, consumption, household composition and characteristics, and migration. It is not representative at the national level or of the departments covered, and its results should be interpreted with caution. Nonetheless, the survey is useful for shedding some light on the characteristics of rural Nicaraguan migrants and their households.

For this study, migrants are defined as individuals who have moved across an international border from his/her place of residence regardless of either their legal status (i.e., whether the movement is voluntary or involuntary) or the causes for their movement.[29] Moreover, a migrant household is defined as a household in an NCA country with at least one member currently residing abroad (migrant). When using household surveys from NCA countries, these migrant households were identified by asking household residents if, at the time of the survey, any household members had been residing abroad for more than three months (El Salvador) and if anyone who lived in the household was living in another country (Honduras). In the case of the 2018 Population Census for Guatemala, respondents were directly asked about the number of migrants at the household level.[30] Finally, in the case of Nicaragua, since the data corresponds to a follow-up survey of an impact evaluation (of financial and productivity interventions), respondents were asked about members who resided in the country when the baseline survey was collected in 2015 but had migrated abroad by 2021.

In addition, the characterization of returnees is possible (to some extent) using the household surveys for Honduras and Nicaragua. The household surveys for Honduras and Nicaragua contain information on returnees, such as the number of years living abroad, the country of destination, and the reasons for returning, plus some socio-economic variables, such as gender and educational levels. Returnees are defined as migrants who lived abroad and returned indeterminately to their country of origin. In the case of Nicaragua, the relevant period was within the five years prior to the time of the survey. For Honduras, it could be at any point in the past (for more details, see Table B.2 in Annex B).[31]

Section 5, which explores some of the push factors linked to NCA migration, combines the abovementioned household surveys with data on poverty and living standards, natural hazards, and violence measured by homicide rates (and protests for Nicaragua) at the municipal level. The small area poverty indicators correspond to 2014 for Honduras, 2018 for El Salvador, and 2009 for Guatemala (rural poverty).[32] Data on violence were obtained from the Online Police Statistical System of Honduras,[33] the Ministry of Justice and Public Security of El Salvador (through the Crisis

29 Following the UN Migration Agency (IOM). This includes categories such as migrant workers, refugees, and asylum seekers.

30 There is no specific timeframe.

31 For Honduras and Nicaragua, the questions about returnees are embedded in the main questionnaire. In the case of El Salvador, there was a separate questionnaire on migration questions in which information about returnees was captured. However, only 36 individuals were identified as returnees. Due to considerations about the sample size, these are discarded from the analysis.

32 Nicaragua is not included because there is no poverty estimate at low administrative levels.

33 https://www.sepol.hn

Group),[34] and the Observatory of Violence of Guatemala (*El Observatorio de Violencia -Diálogos*).[35] For Nicaragua, the analysis was based on protests reported throughout the 2016-2020 period by Cabrales and López-Espinoza (2020). Further information comes mainly from the 2018 INFORM Risk Index,[36] which identifies risks, threats, vulnerabilities, and response capacity at the municipal level. This is available for El Salvador, Honduras, and Guatemala.

For Section 6, which analyzes the pull factors that attract NCA migrants to the United States, the results are based on the latest national household surveys for each NCA country complemented with information from the one-year American Community Survey (ACS). The ACS is a survey conducted annually by the U.S. Census Bureau that collects information on demographic, social, economic, and housing characteristics of households in the United States (Ruggles et al., 2022). In the first part of Section 6, the change of the migrant profiles over the last two decades was analyzed by using the 2010, 2013, 2016, and 2019 ACS one-year estimates (based on information collected over a 12-month period). For the purpose of profile characterization, NCA migrants are those who moved from NCA countries to the United States in the three years up to the year of the survey, referred to as 'three-year cohort migrants' henceforth. For example, if the survey was applied in 2019, migrants comprise those individuals who arrived in the United States in the period 2017-2019. On the other hand, NCA residents are characterized using the surveys mentioned in Section 4 for El Salvador and Honduras.

For the second part of Section 6, which studies the wages of NCA migrants in the United States compared to their potential wage in their country of origin, the data come from the ACS five-year estimates for migrants and the harmonized Socio-Economic Database for Latin America and the Caribbean (SEDLAC) for residents. The 2000 5-percent Public-Use Microdata Sample, together with the 2014 and 2019 ACS five-year estimates (that collect information over a 60-month period), are used to estimate the wage distribution of NCA migrants in the United States. NCA migrants are defined as those who arrived in the United States in the decade prior to the year of the survey (including that year), referred to as '10-year cohort migrants' henceforth. To determine whether NCA migrants earn a higher wage in the United States than they would have if they had not migrated, a counterfactual wage is estimated using SEDLAC data. Specifically, the following are used for each NCA country: the 2000, 2014, and 2019 Multipurpose Household Survey for El Salvador; the 2001, 2014, and 2019 Multipurpose Household Survey for Honduras; the 2000 and 2014 National Living Standards Measurement Survey for Guatemala (*Encuesta Nacional de Condiciones de Vida*); and the 2001 and 2014 National Living Standards Measurement Survey for Nicaragua (*Encuesta Nacional de Medición de Nivel de Vida*).[37] The analysis compares the wage distribution of the 10-year cohort of migrants aged 21-65 (who were 18 years or older at the time of their arrival in the United States) with the counterfactual wage distribution had they worked in their home countries.

34 https://www.crisisgroup.org/el-salvador

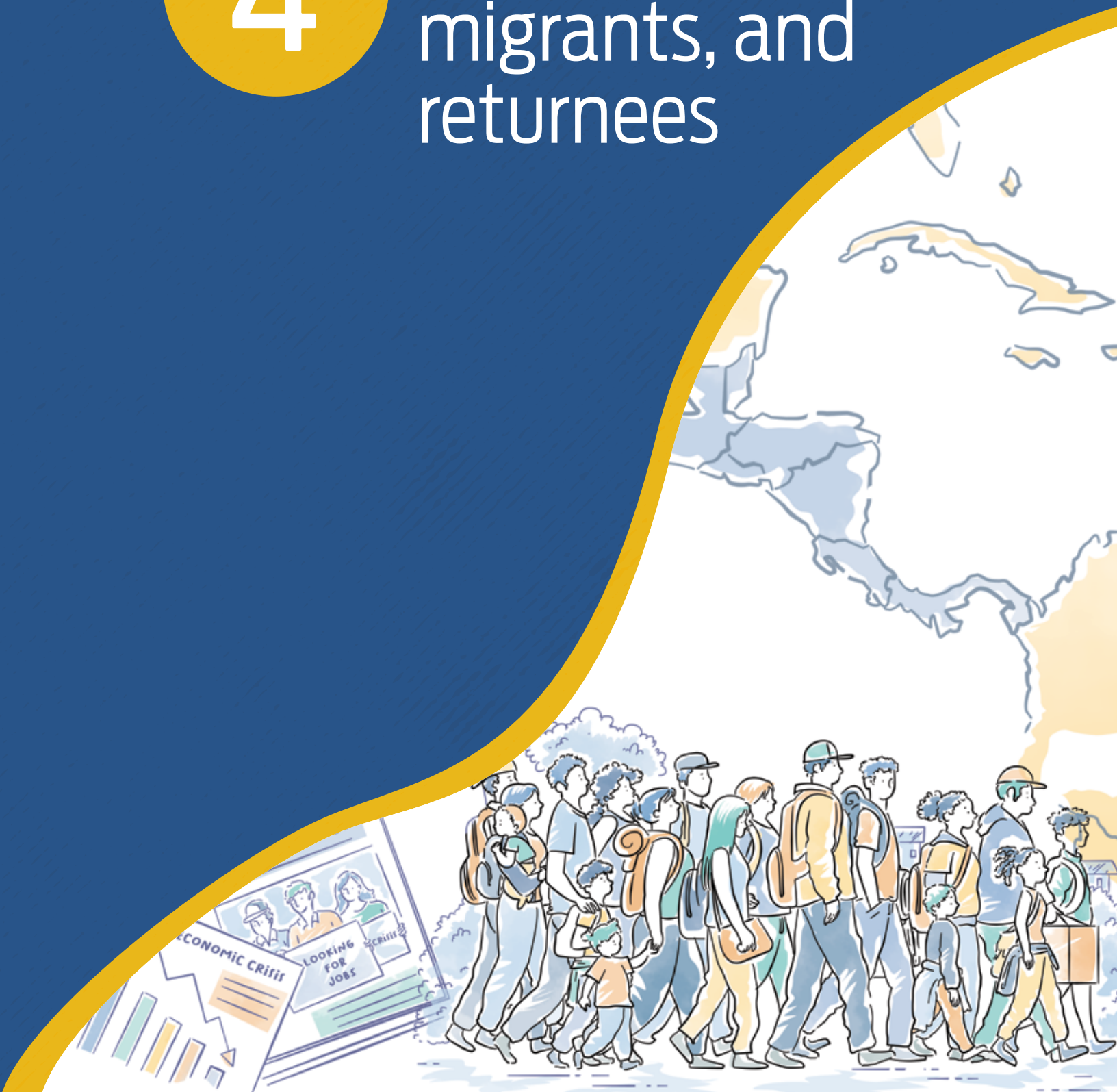
35 https://dialogos.org.gt/observatorio-de-violencia

36 https://drmkc.jrc.ec.europa.eu/inform-index

37 Note that for Guatemala and Nicaragua, these surveys are different than those used for previous sections because, despite not being as recent, they include labor market data on employment and wages.

While the report takes advantage of the richness of the available data, several caveats remain. When the information from household surveys conducted in the country of origin is used to identify and characterize migrants and migrant households (where are least one member is residing abroad), this does not capture the cases in which the entire household migrated. In addition, when a household member reports the information of the migrant (who resides abroad), measurement error is likely to increase. At the same time, irregular migrants tend to be underrepresented in the ACS survey of the United States. It is likely that regular migrants provide a more positive outlook of the socio-economic situation of NCA migrants in the United States than irregular migrants. Nevertheless, the undercount of unauthorized migrants in recent ACS data has been declining over time and is likely to be low (Arayavechkit et al., forthcoming). Finally, as mentioned above, the household survey for Nicaragua is not representative at the national level or at the department level (in which the survey was collected), hence the results should be interpreted with caution.

4 Profile of migrant households, migrants, and returnees



This section compares the profile of migrant-sending households with non-migrant-sending households in NCA countries and examines the characteristics of individual migrants (as reported by their household members in the country of origin) and also returnees. The section first examines a series of welfare indicators at household level and then examines the characteristics of migrants themselves. Lastly, it examines the characteristics of returnees to provide some insights into who is more likely to return. Overall, migration is linked to higher living standards among current migrant households.

4.1. COMPARISON OF MIGRANT HOUSEHOLDS TO NON-MIGRANT HOUSEHOLDS

Honduras and El Salvador have the highest share of households with an international migrant (17 and 15 percent, respectively), and migrant households tend to be slightly smaller than non-migrant households. The proportion of households with migrant experience was close to 17 percent for Honduras, 15 percent for El Salvador, and 5 percent for Guatemala. For the sampled households in Nicaragua, located in the three rural departments and the South Caribbean Coast Autonomous Region in which the data was collected, 12.1 percent have an international migrant.[38] Among migrant households, a slightly larger share of households is found in urban areas compared to rural areas in El Salvador and Honduras, but the differences are small. In Guatemala slightly more than half (58 percent) of all migrant households are in rural areas. In Nicaragua, only rural households were targeted by the survey. On average, migrant households are smaller than non-migrant households, a trait usually correlated with higher welfare. This difference, albeit small (less than 1 percent), is statistically significant in the four countries. It also appears that migrant households have more dependents – i.e., children and elders[39] – although these differences in household composition are also small in magnitude. More specifically, migrant households in El Salvador and Honduras have more elderly members, while migrant households in Guatemala have both more children and elders than adults (Table C.1 in Annex C)

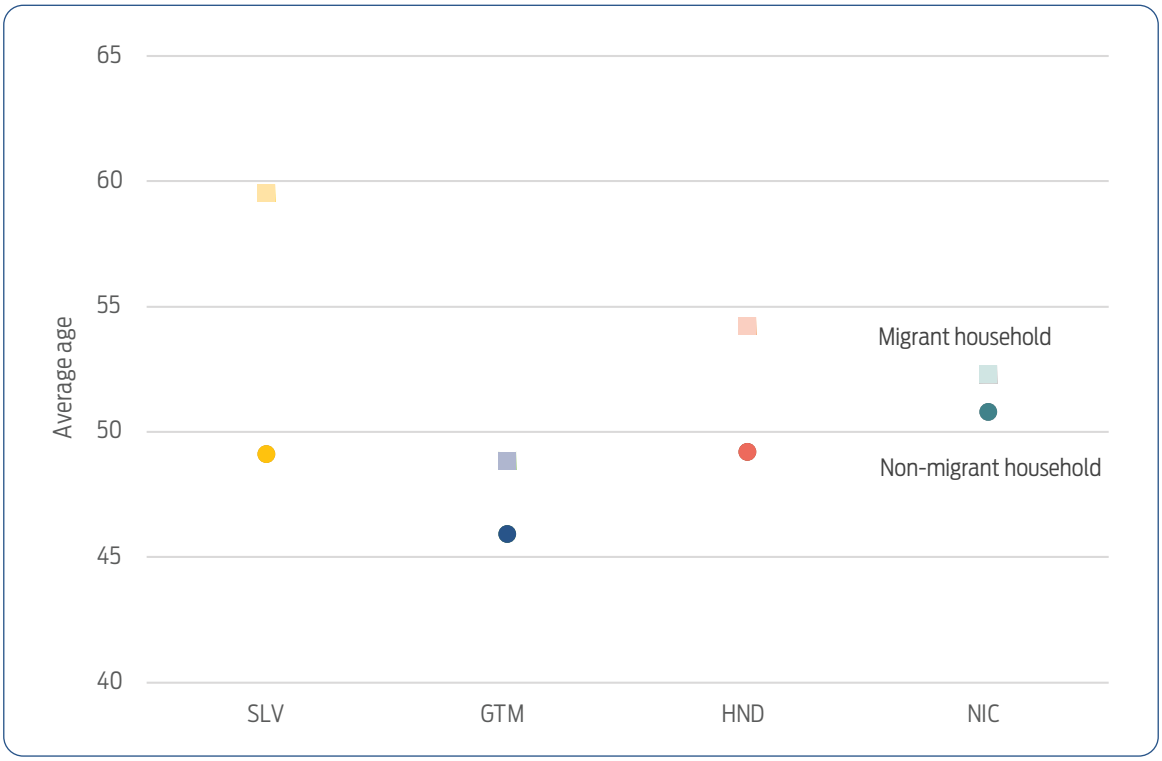
The heads of migrant households are older and slightly more likely to be women, compared to non-migrant households. In El Salvador, heads of migrant households are 60 years of age, on average, compared to an average age of 49 years among non-migrant households. Differences in age are also sizeable in Honduras and Guatemala (Figure 5), while the age gap in Nicaragua is not statistically significant. Moreover, the proportion of female-headed households is larger for migrant households. Differences are substantial and statistically significant in all countries. This is particularly the case in Guatemala, where nearly half of migrant households are headed by women, compared to less than one third in non-migrant households (Figure 6). These results, together with the characterization of migrant households provided of the migrants (see *Profile of migrants* subsection below), show that it is common for middle-aged males to leave their spouses behind in their country of origin, changing the family dynamics of the households. Furthermore, heads (aged 18 years old or over) in migrant households tend to be less educated. In El Salvador, they have completed 5.3 years of schooling on

38 The survey in Nicaragua is not nationally representative nor representative of departments where the survey was collected (more details in Section 3).

39 Total number of children under 15 years old and adults over 64 years of age at the household level as a proportion of household members aged 15 to 64 years.

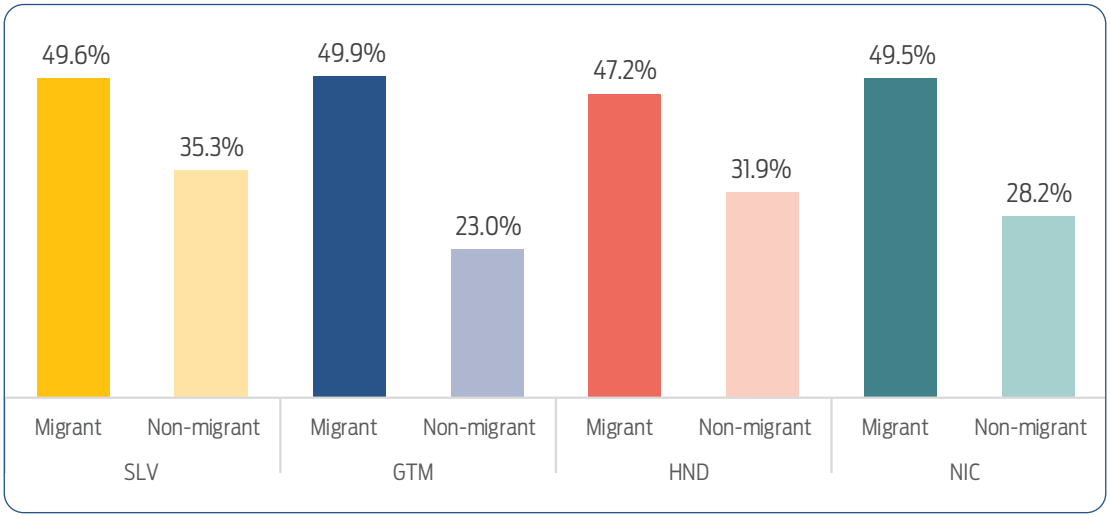
average, compared to 7.1 among non-migrant households. A schooling gap of about 1.6 years also exists in Guatemala, but there is no statistically significant difference in Honduras. The difference in education between migrant and non-migrant household heads still holds even when comparing among males only and females only.

FIGURE 5:
AGE OF HOUSEHOLD HEAD



Source: Authors' calculation using El Salvador 2020 Household Survey, Honduras 2019 Household Survey, Guatemala 2018 Population Census, and Nicaragua 2021 Household Survey.

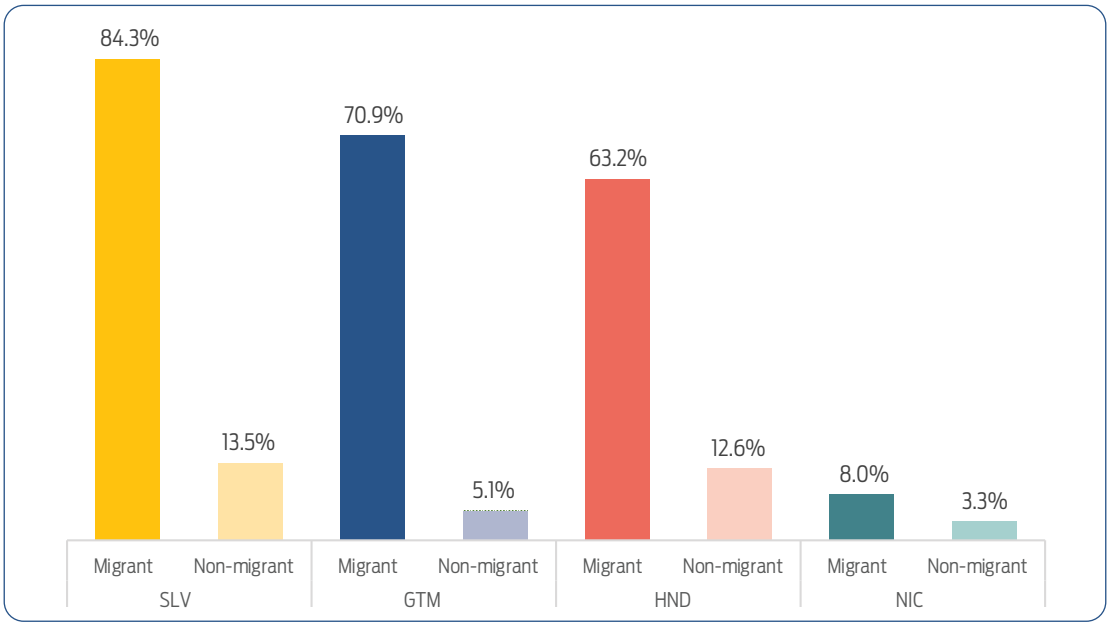
FIGURE 6:
SHARE OF FEMALE-HEADED HOUSEHOLDS



Source: Authors' calculation using El Salvador 2020 Household Survey, Honduras 2019 Household Survey, Guatemala 2018 Population Census, and Nicaragua 2021 Household Survey.

Migrant households are more likely to receive remittances. Migrants are not drawn primarily from the poorest households, but it is plausible that causation also runs from migration to improved living standards. In other words, the higher living standards observed among migrant households may be explained by having a migrant member who, for example, sends remittances that bolster the households' income. In Guatemala, seven out of every 10 migrant households receive remittances, compared to less than one in 10 non-migrant households. Differences are equally striking in El Salvador and Honduras, although no such trend is evident for Nicaragua (recall that the data for Nicaragua is focused only on three rural departments and one autonomous region) (Figure 7). Remittances constitute a substantial share of household income. In El Salvador and Honduras, where surveys collect data on total income and its sources, 38 percent and 41 percent of household income come from remittances, respectively.

FIGURE 7:
PROPORTION OF HOUSEHOLDS (%) RECEIVING REMITTANCES



Source: Authors' calculation using El Salvador 2020 Household Survey, Honduras 2019 Household Survey, Guatemala 2018 Population Census, and Nicaragua 2021 Household Survey

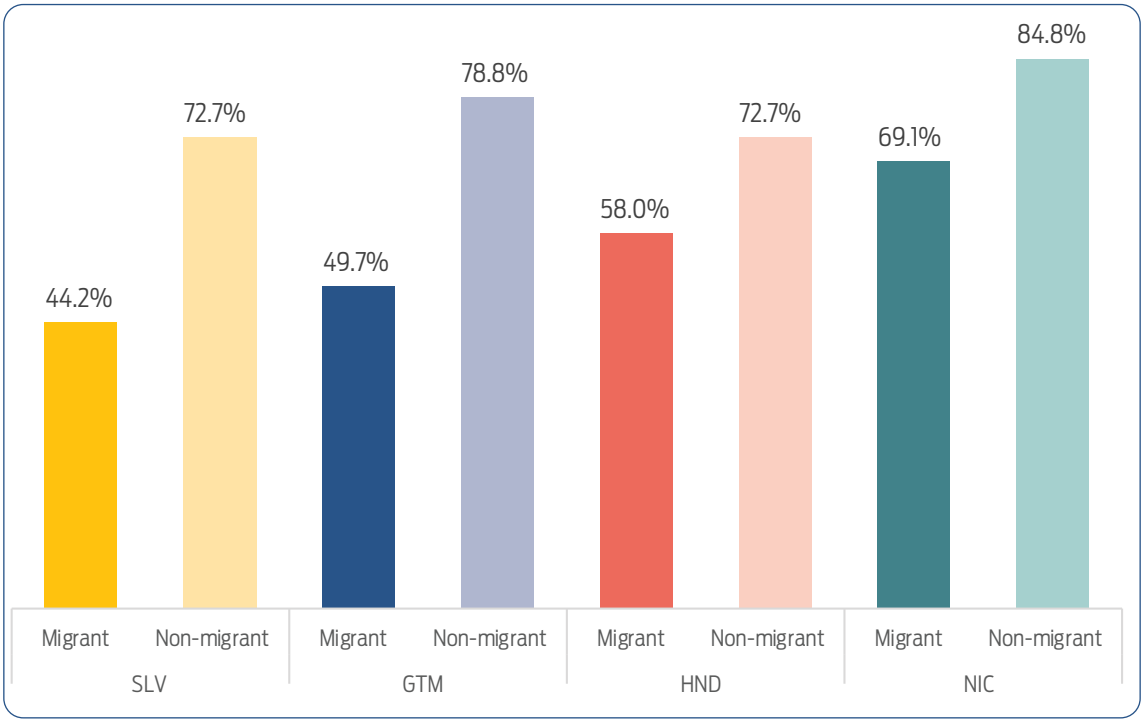
Employment is lower among migrant households than non-migrant households. Heads of migrant households aged 21 to 65 years old are less likely to be employed in all four countries and the differences are large. In El Salvador and Guatemala, over 70 percent of non-migrant heads are employed compared to less than 50 percent of migrant household heads. Differences are also noticeable in Honduras and Nicaragua, where employment rates differ by 15 and 16 percentage points, respectively (Figure 8). Nevertheless, it is important to consider if this finding holds separately for male- and female-headed households. This is because participation of women in the labor force is low in NCA countries, which may be driving the differences between migrant and non-migrant households.

The analysis for female and male household heads shows that employment is still lower among migrant households regardless of the sex of the household head, except in Nicaragua, where the differences are not statistically significant – most likely due to the rural nature of the survey. Migrant households also have a lower share of employed members (21-65 years old) than non-migrant households in all countries and differences are large, particularly in El Salvador and Guatemala (Figure 9).[40] This is consistent with the fact that migrant households tend to have more elder members than working-age adults, as discussed above. At the same time, this is

40 Again, these results hold even when examined separately among female and male heads. The exception is in Honduras and Nicaragua, where migrant household headed by a male have a slightly larger share of employed members.

likely related to remittances, which, as previously stated, are more likely to go to migrant households. Studies show that if households receive a sizeable positive income shock from remittances, it may create disincentives to engage in the labor market. This may cause working-age members, especially women, to reduce their participation in the labor force (Amuedo-Dorantes & Pozo, 2006; Démurger, 2015; Sousa & García-Suaza, 2018).[41]

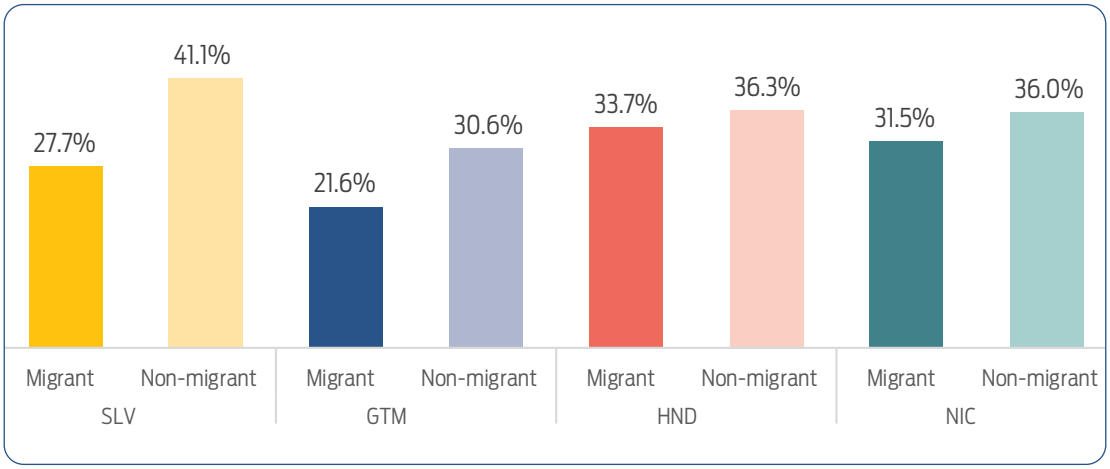
FIGURE 8:
SHARE OF EMPLOYED HOUSEHOLD HEADS



Source: Authors' calculation using El Salvador 2020 Household Survey, Honduras 2019 Household Survey, Guatemala 2018 Population Census, and Nicaragua 2021 Household Survey

41 Sousa & García-Suaza (2018) find that remittances decrease the labor-participation rates of women in El Salvador by 25 percent relative to similar women who did not receive remittances. Participation rates for men also decreased in El Salvador (by 6 percent) and Guatemala (by 4 percent). The authors find mixed results in the case of Honduras, where there was a change between 2006 and 2014 in how remittances affect participation. The negative effect on labor supply of Honduran women persisted in both years, while for Honduran men there was no effect in 2014.

FIGURE 9:
SHARE OF EMPLOYED HOUSEHOLD MEMBERS (21-65 YEARS OLD) AS A PROPORTION OF TOTAL NUMBER OF HOUSEHOLD MEMBERS



Source: Authors' calculation using El Salvador 2020 Household Survey, Honduras 2019 Household Survey, Guatemala 2018 Population Census and Nicaragua 2021 Household Survey

Migrant households are wealthier (more assets) and less likely to be poor in both monetary and non-monetary dimensions. To obtain a measure of households' accumulated wealth, we use a standardized asset index constructed from variables describing household ownership of durable goods and housing characteristics aggregated by weight.[42] Migrant households have a higher asset index in all four countries, including among the rural households of Nicaragua. At the same time, monetary poverty is assessed using the household's income and each country's national poverty line. The evidence shows that the incidence of poverty is lower among migrant households in El Salvador and Honduras.[43] More specifically, in El Salvador, the poverty rate among non-migrant households (28 percent) is almost twice as large as the rate among migrant households (15 percent). In Nicaragua,[44] no statistically significant difference exists in the poverty rate between migrant and non-migrant households, but migrant households do have a higher asset index. Migrant households are less likely to be multidimensionally poor in El Salvador, Honduras, and Guatemala (Figure 10).[45]

42 An asset index was constructed using the information available from each of the four countries subject to this study. The decision was taken to use the asset index as a proxy for household welfare instead of other potential variables (such as household income). This was due to the availability of information about assets' possession throughout the four NCA countries. In contrast, income information is only available for some of these countries.

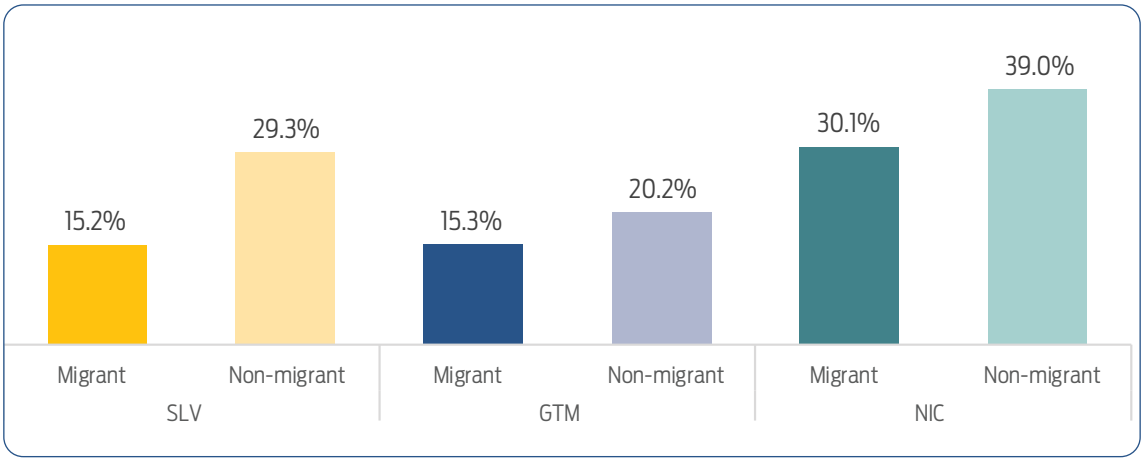
43 Data on monetary poverty is not available for Guatemala.

44 Nicaragua's poverty is measured using the level of consumption.

45 It is not possible to estimate multidimensional poverty in Nicaragua from the data at hand. The Multidimensional Poverty Index (MPI) is based on the premise that the well-being of a population is not only reflected in consumption, but also by shortfalls in many non-monetary conditions, such as school achievement of household members, dwelling characteristics, and assets, etc.

The fact that migrant households tend to be less poor may be linked to the costs of migration. Previous studies show that migration is costly and consequently migrants from NCA tend to be drawn from the middle and upper half of the wage distribution (Arayavechkit et al., forthcoming). This is also supported by evidence from other Latin American countries, suggesting that migrants tend to come from the middle of the income distribution (McKenzie & Rapoport, 2007; McKenzie & Rapopoort, 2010; Massey & Riosmena, 2010). At the same time, migrant households may be better off due to the remittances that they receive, as discussed above.

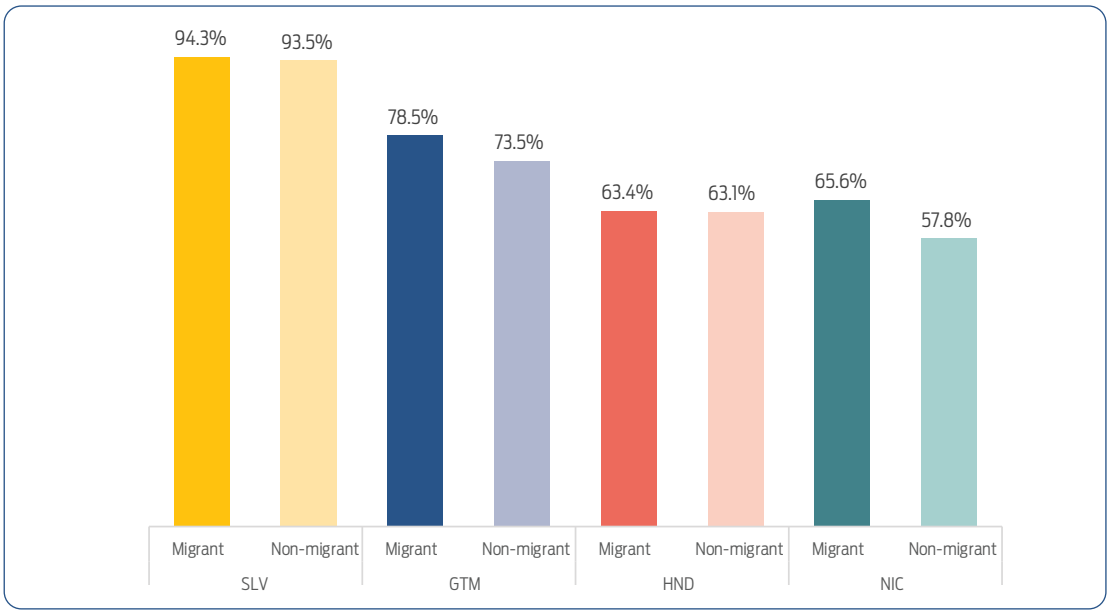
FIGURE 10:
MULTIDIMENSIONAL POVERTY



Source: Authors' calculation using El Salvador 2020 Household Survey, Honduras 2019 Household Survey, Guatemala 2018 Population Census, and Nicaragua 2021 Household Survey

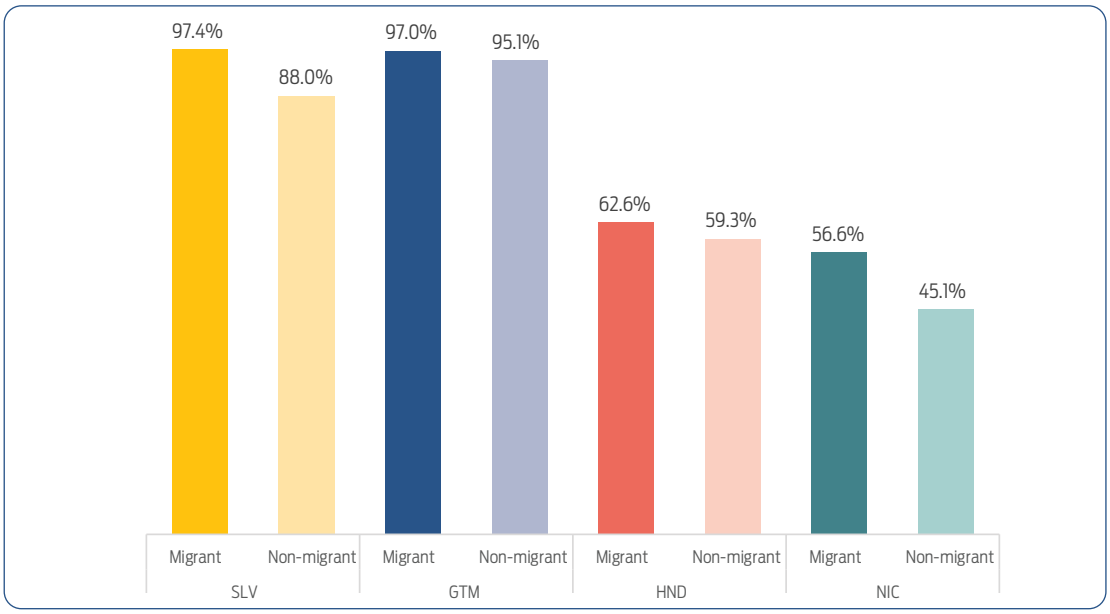
Migrant households also have better access to basic services, confirming that overall, they enjoy better standards of living. A larger share of migrant households has access to drinking water compared to non-migrant households in Guatemala and Nicaragua. Similarly, the access to sanitation is higher in migrant households in all four countries. Likewise, most households (over 90 percent) in these countries have access to electricity, although rates are even higher among migrant households (see Figure 11, Figure 12, and Figure 13).

FIGURE 11:
ACCESS TO WATER



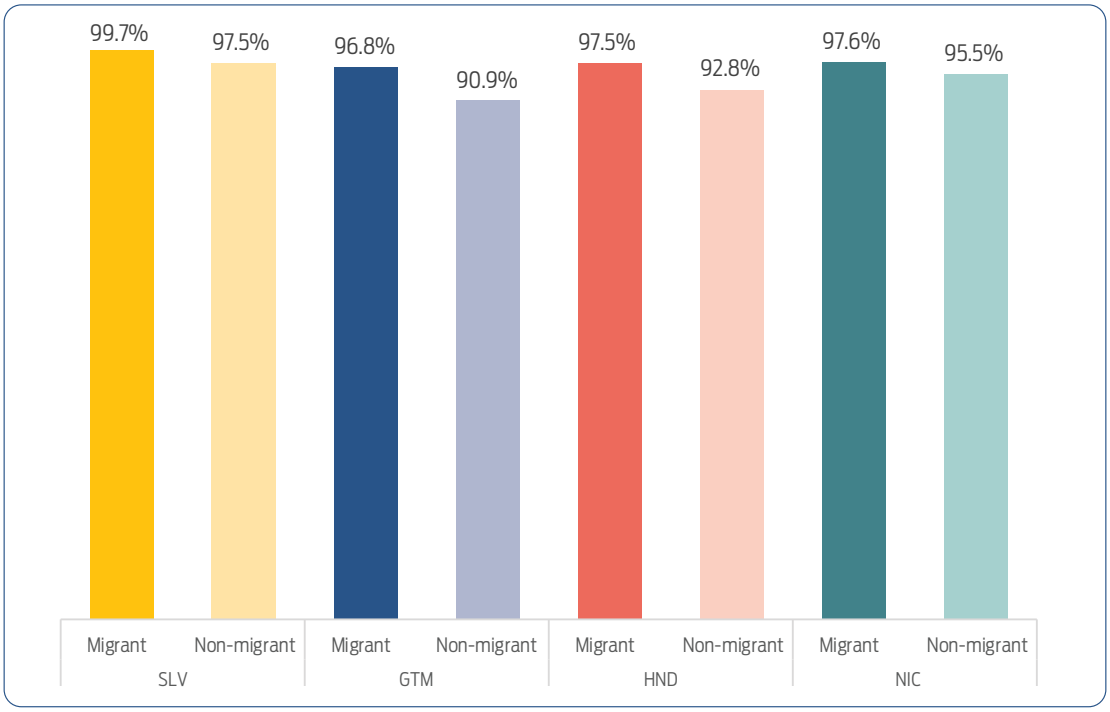
Source: Authors' calculation using El Salvador 2020 Household Survey, Honduras 2019 Household Survey, Guatemala 2018 Population Census, and Nicaragua 2021 Household Survey

FIGURE 12:
ACCESS TO SANITATION



Source: Authors' calculation using El Salvador 2020 Household Survey, Honduras 2019 Household Survey, Guatemala 2018 Population Census, and Nicaragua 2021 Household Survey

FIGURE 13:
ACCESS TO ELECTRICITY



Source: Authors' calculation using El Salvador 2020 Household Survey, Honduras 2019 Household Survey, Guatemala 2018 Population Census, and Nicaragua 2021 Household Survey

To summarize, migrant households in NCA countries tend to have heads that are older, female, and less likely to be employed. At the same time, migrant households tend to have a lower share of employed members compared to non-migrant households. Moreover, they tend to be better-off, less likely to be poor (both in terms of monetary and non-monetary poverty), and have greater access to basic services.

4.2. PROFILE OF MIGRANTS (AS REPORTED BY RELATIVES LEFT BEHIND)

Most migrants are male and young, according to the description of relatives that remain in the countries of origin.[46] Table C.2 in Annex C shows the characteristics of individuals who have migrated, based on information provided by their family members left behind. The available data are limited, and no data was collected on the characteristics of migrants in Honduras. There was variation

46 No data on the gender of the migrant are available for Honduras. Similarly, age at departure is only available for El Salvador and Guatemala.

in the year of departure across countries due to differences in survey collection periods. For El Salvador, the share departing between 2015 and 2019 remained steady each year (about 15-20 percent), with a smaller share in 2020 (6 percent). According to the Guatemala census, most migrants (55 percent) left before 2015, while in Nicaragua most left in 2021. In El Salvador, 54 percent of the migrants were male and were on average 27 years old at the time of departure. Fewer than half of them (43 percent) were unemployed prior to departure and the majority (83 percent) left for the United States. Most migrants from Guatemala were also male (77 percent) and left in their mid-twenties (age 26 years, on average). Age at departure was not collected for Nicaragua. Similar to the other countries, however, males dominated (63 percent of all Nicaraguan migrants). The large share of young male migrants explains the sizeable share of women heads, children, and elders left behind, as noted above. Note that the data do not capture when entire households migrate, a phenomenon that increased significantly during the 2015-2019 period.

In El Salvador, relatives who are left behind report limited economic opportunities as the main reason for migrating. El Salvador was the only country for which the survey elicits information on the motives for migrating as well as education and occupation of the migrant at the time of departure. The majority of respondents (57 percent) cited economic reasons as the primary reason for migration of their family members, followed by family reasons (20 percent) and violence/conflict (19 percent). Similarly, nearly all migrants aged 18 or over at the time of departure (98.5 percent) had completed some level of education, with the majority having completed primary education (87 percent) followed by secondary education (9 percent). This suggests that there is positive selection in migrants from El Salvador, as will be confirmed later.

The profile of migrants in the United States shows that the most recent cohorts of NCA migrants are even younger and with a higher proportion of women compared to what is reported by surveys in their countries of origin. A comprehensive profile of recent NCA migrants in the United States is conducted in Section 5 by exploiting 2010-2019 ACS data. The composition of the cohort of migrants who arrived in the United States between 2017 and 2019 shows that they were on average in their early twenties compared to the stock that migrated a decade earlier between 2007-2010 who were in the mid-twenties (Figure 22). Additionally, the results suggest that the proportion of women has also been increasing. Around half of Salvadoran and Honduran migrants arriving between 2017 and 2019 were women, while the proportion of women increased from 35.6 percent in 2010 to 44.8 percent by 2019 among Guatemalan migrants (Figure 25). On the other hand, the profile of migrants reported by their relatives in countries of origin depicts migrants with a higher average age (Figure 14) and a lower proportion of women (Figure 15) compared to the ACS data.

FIGURE 14:
AGE OF MIGRANTS

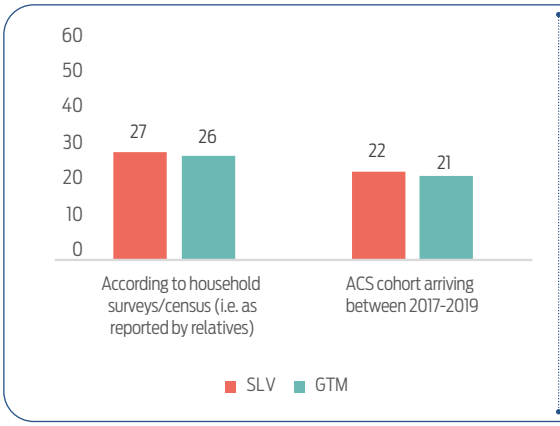
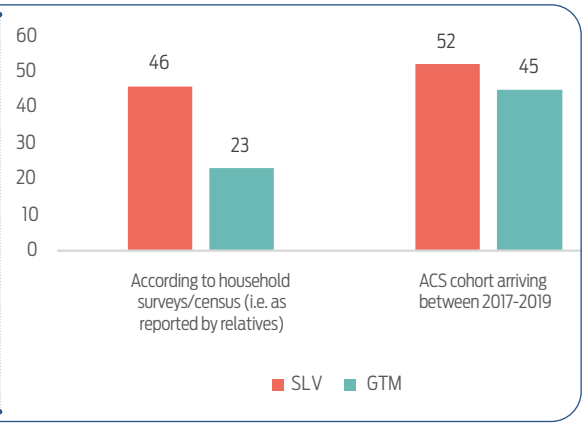


FIGURE 15:
PROPORTION (%) OF FEMALE MIGRANTS



Source: Authors' calculation using El Salvador 2020 Household Survey and Guatemala 2018 Population Census. ACS data is drawn from 2019 ACS 1-year and comprises migrants from NCA countries who moved to the United States between 2017 and 2019.

4.3. PROFILE OF RETURNEES

There is limited information on returnees from the United States to NCA countries, but available statistics on nationwide border encounters suggest that a substantial number are expelled to their home country or last country of transit.[47] It is estimated that between FY2020 and FY2022,[48] about half of the 1.4 million encounters with NCA migrants in the United States resulted in expulsions and the other half in detentions (Figure 16). However, country differences are observed, with the majority of Nicaraguan encounters resulting in detentions rather than expulsions, while the opposite is true for the other countries. It should be noted that these statistics refer to those encountered at the border and forced to return, and do not include those who return voluntarily.[49] For the most part, migrants from El Salvador, Guatemala, and Honduras have no desire to return to their home country. A 2018 study of NCA migrants in three key population centers in the United States (New York, Los Angeles, and Washington DC) found that only 30 percent of migrants reported a desire to go back to their home countries — regardless of their migrant status (Abuelafia et al., 2019).[50]

47 It is not possible to distinguish from the data the number of migrants who are expelled to their home country versus those expelled to their last country of transit.

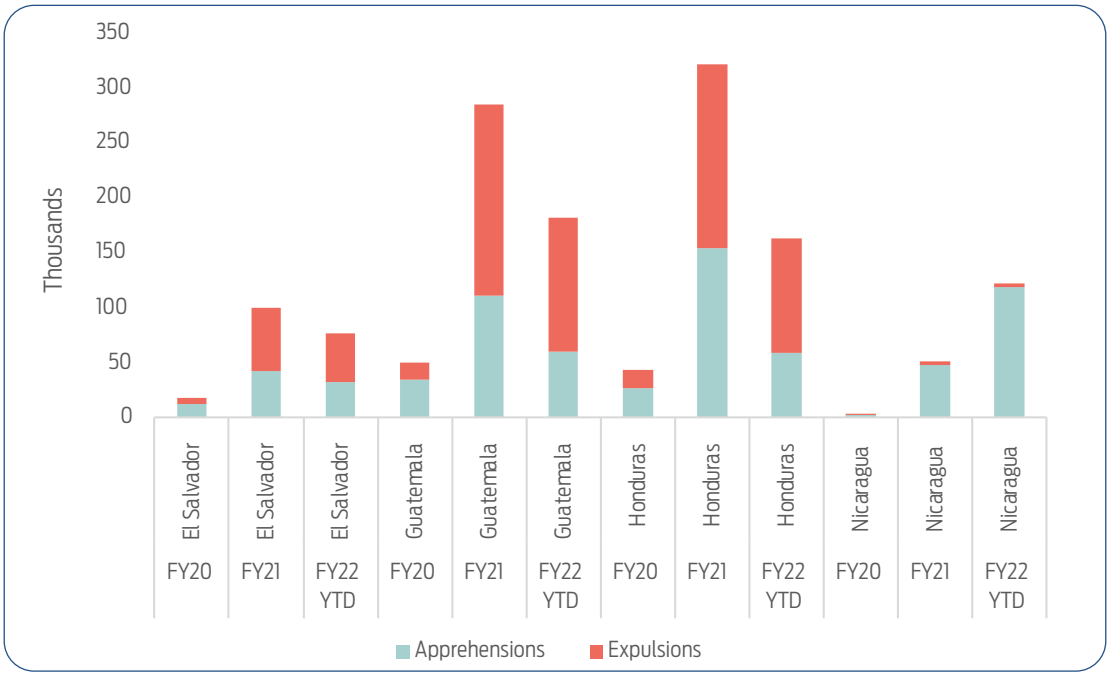
48 Data for FY22 is current as of 07/06/2022

49 Available U.S. data from the ACS surveys only shows the stock of migrants in the United States from each of the NCA countries in a specific year. Although it is possible to calculate the change in the stock between two years (net flow), it is not possible to disentangle from this the inflow into the United States (i.e., outflow from countries of origin) or outflow from the United States (i.e., inflow into the countries of origin).

50 The study shows that, according to population analysis, these cities are appropriate to represent the United States within reason.

The profile of NCA returnees derives from surveys of Honduras and Nicaragua reveal that demographic characteristics of returnees varied significantly depending on the country.[51] Table C.3 in Annex C presents information on some socio-economic characteristics of individuals who returned from abroad. On average, Hondurans were 29 years old when they returned, and a negligible percentage of Honduran returnees were women. By contrast, the share of women was a third among Nicaraguan returnees in the selected rural areas. Almost half of the Honduran returnees came from the United States, while the majority of Nicaraguan returnees came from Costa Rica, their main destinations, respectively.

FIGURE 16:
NUMBER OF NATIONWIDE ENCOUNTERS – EXPULSIONS AND APPREHENSIONS



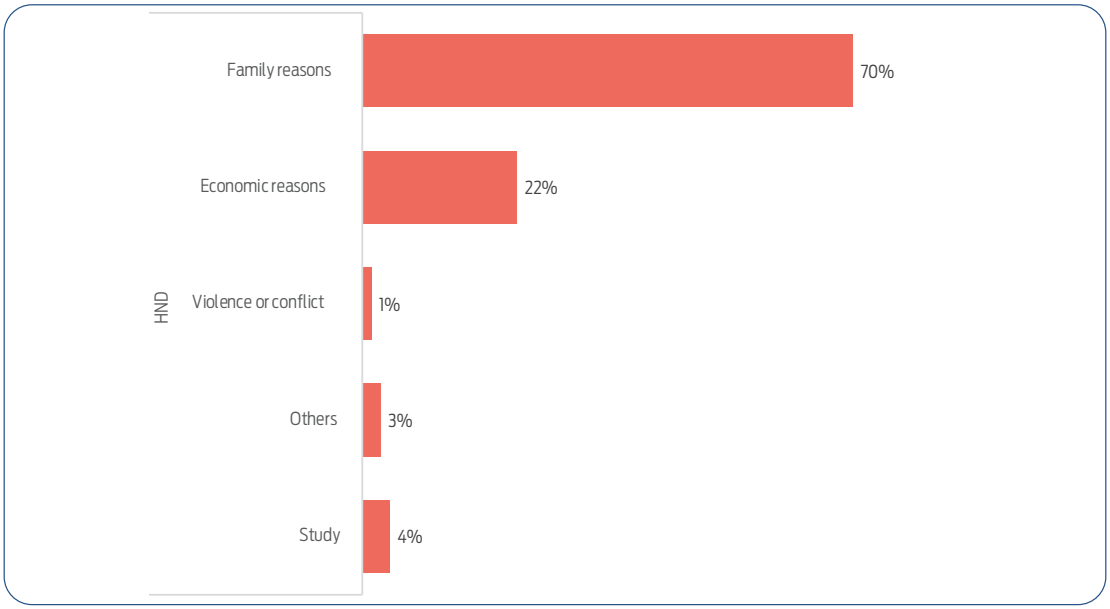
Source: U.S. Customs and Border Protection (Department of Homeland Security) (2022). Data show encounters with individuals from El Salvador, Guatemala, and Honduras nationwide. Encounters consist of: (i) expulsions in which migrants are immediately sent back to their home country or last country prior to arrival in the United States; and (ii) apprehensions in which migrants are detained in the United States.
Note: Data for FY22 is current as of 07/06/2022

Most Honduran migrants return to their home countries because of family reasons. On average, returnees to Honduras spent 13.6 years abroad. About 70 percent cited family reasons as the main motivation to return, followed by 22 percent who mentioned economic reasons (See Figure 17 and Table C.4 in

51 For Guatemala, no information on returnees was available. In Nicaragua and Honduras, the samples comprise 245 returnees and 860 returnees, respectively. In El Salvador, the migration module provides information only on 36 returnees, hence its exclusion from this analysis.

Annex C).[52] This result is in line with the fact that close to half of the Latin Americans living in the United States consider that families ties are stronger in their countries of origin (Pew Research Center, 2022).

FIGURE 17:
REASONS FOR RETURNING

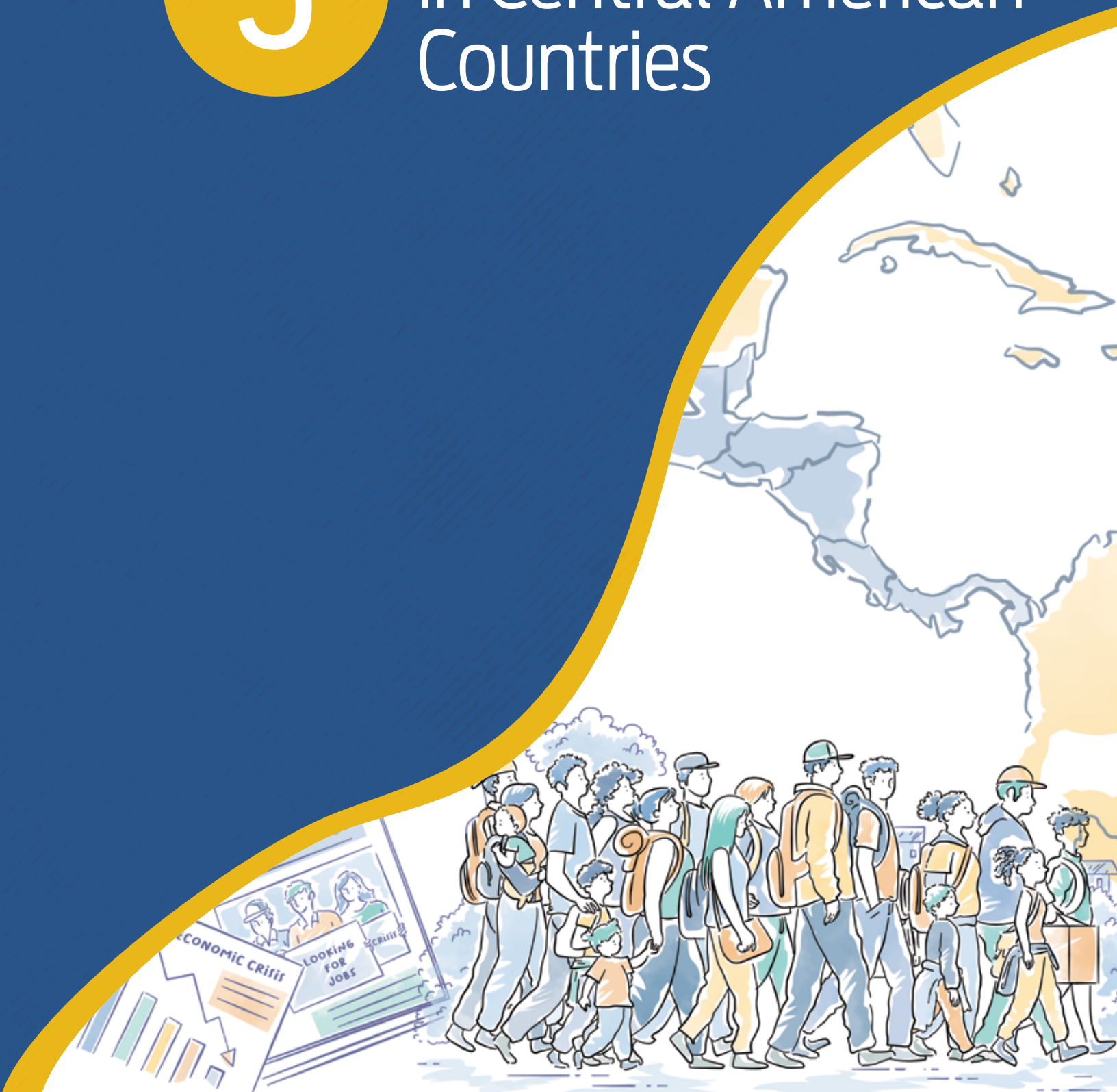


Source: Authors' elaboration using the 2019 Multipurpose Household Survey of Honduras

Returnees from Nicaragua are more likely to be employed than the local non-returned population. Around 80 percent of Nicaraguan returnees (21-65 years old) were employed compared to 69 percent among the local population. The difference in likelihood of employment may be due to varying levels of education. On average, returnees had higher rates of completion of secondary education compared to the local population, of which a substantial percentage (23 percent) had no education (Table C.3 in Annex C). Despite these differences, the sectors of occupation of returnees were very similar to those for the non-returnee population in Nicaragua. In the case of Nicaragua, returnees were employed in agriculture (54 percent), followed by services (17 percent), trade (16.2 percent) and industry (13 percent). The engagement in agriculture among both Nicaraguan returnees and the local population may be explained by the fact that the survey was carried out among rural households. Furthermore, a high proportion of employed returnees are self-employed, consistent with the evidence from other regions such as Europe and North Africa (Mc Cormick and Wahba, 2003; Haussmann and Nedelkoska, 2018). Indeed, in Honduras, 59 percent of employed returnees are self-employed compared to 42 percent among non-returned population.

52 Years abroad and reasons for returning are not available for Nicaragua.

5 Push factors in Central American Countries



This section explores three factors that have been traditionally considered as push factors in NCA countries: (i) limited economic opportunities and low standards of living in communities of origin; (ii) extreme weather events, such as droughts and flooding, usually linked to climate change climate; and (iii) violence. For each of the four countries in question, the correlation between migration and these factors is studied by combining the latest official national household surveys/census (with the exception of Nicaragua) with administrative data at the municipal level, exploiting spatial variation at this administrative level.[53] In all cases, the analysis focuses on how these factors affect the probability that a household has a migrant member abroad, controlling for as many observable characteristics of the household as possible.

5.1. WHAT DO WE KNOW ABOUT PUSH FACTORS IN NORTH CENTRAL AMERICAN COUNTRIES?

This subsection presents a summary of the economic literature that studies the three main key drivers, or 'push factors', of migration in the NCA countries studied in this report. The summary is not meant to be comprehensive or exhaustive; it is restricted to quantitative papers in peer-reviewed journal articles and working papers that focus on these four countries. As most of these studies tackle several factors at the same time, efforts were made to group them by their primary focus as much as possible.

For the most part, migration is associated with higher socio-economic status, proxied by asset ownership, education, or income. Bermeo and Leblang (2021) show for Honduras that the determinants of migration are related to household wealth status, in addition to natural hazards impacting households. More specifically, the authors use a wealth index based on information on the ownership of assets, access to basic services, and housing characteristics. They find that this index is positively associated with the probability of migration. In Guatemala, Adams and Cuecuecha (2010) find that migrants have, on average, more years of education than non-migrants, consistent with the fact migration is costly and more educated people have the economic means necessary. Similarly, in Nicaragua, Barham and Boucher (1998) find that migrants tend to be, on average, more educated and more likely to be male. In sum, migrants are typically not from the poorest households, as the journey requires considerable economic means (the costs of migration were recently estimated to oscillate between $4,500 to $7,500 (Ruiz Soto et al. 2021)).

Overall, the literature identifies socioeconomic factors, such as poverty, human capital, and wealth, as key factors. Only Quijada and Sierra (2019) suggest that the propensity to migrate at the individual level in Honduras is negatively correlated to higher education and access to basic services (such as water and sanitation), while violence has no impact. However, they only include poor households in their analysis, which likely biases the results. In turn, Ruiz Soto et al. (2021) investigate the reasons behind the migration from El Salvador, Guatemala, and Honduras, as well as the costs and effects of migration at a regional scale. One of the authors' main findings is that economic factors such as insufficient wages, lack of jobs, and low incomes are perhaps the most determinant factors in the decision to migrate, even though other triggers of migration such as violence, instability, and natural hazards are also important.

53 Overall, the report is cautious about establishing a causal relationship between migration and these three factors.

The incidence of weather shocks, such as droughts and floods, are clearly identified as drivers of migration, as well as violence, albeit in some cases the latter is found to be a reinforcing factor. As mentioned, for Honduras, Bermeo and Leblang (2021) find that prolonged droughts in the Central American Dry Corridor (CADC) are related to increased apprehensions by the U.S. Customs and Border Protection and that the magnitude of this effect increases with higher levels of violence (homicides). Similarly, in El Salvador, Ibañez, Romero, and Velazquez (2021) find that weather shocks are an important push factor for migration as they affect agricultural crop yields, agricultural productivity, and labor market outcomes for agricultural workers. Their results show that households living in rural areas migrate abroad as a strategy to mitigate the negative income shock induced by temperature shocks. Flores-Yeffal and Pren (2018) reveal that idiosyncratic shocks such as job loss, increases the likelihood of first-time, unauthorized migration from El Salvador to the United States. For this same country, Halliday (2006) finds that migration flows increase when there are adverse agricultural shocks, such as harvest and livestock losses, which are usually linked to natural hazards. These shocks have a significant and positive effect on households' probability of sending members to the United States and receiving remittances. Finally, Loebach (2016) demonstrate that Hurricane Mitch in 1998 affected the likelihood of migration in Nicaragua, but only in rural areas, with Costa Rica as the main destination.[54] Furthermore, the most vulnerable and marginalized segments of the population, including women, seems to be the most affected by climate hazards. For example, in Honduras, afro-descendent and indigenous population are more likely to migrate driven by climate hazard risks (World Bank, forthcoming a).

Crime and violence are usually identified as drivers of migration; albeit, the lack of data and methodological challenges make it difficult to establish a causal relationship. For three NCA countries (El Salvador, Guatemala and Honduras), Clemens (2021) establishes that about 10 additional homicides in the origin city caused between three and six cumulative additional apprehensions of children (proxy for migration) in the U.S. between 2011 and 2016. Moreover, qualitative research for Honduras suggests that the incidence of gang-related violence plays a significant role in people's intention to migrate in Honduras (Muñoz-Burgos, 2022).[55] However, a recent report for Central America points out that the role of specific forms of violence such as gang violence and gender-based violence is not definitive due to data and methodological limitations (World Bank, 2021).

5.2. UNDERSTANDING THE PUSH FACTORS OF MIGRATION IN NORTH CENTRAL AMERICA

The correlation between socio-economic factors (poverty and wealth), natural hazards, and violence is explored through multivariate regression analysis. The empirical exploration of the relationship between migration (having a migrant household member) and these three concepts is done simultaneously, while also controlling for other socio-economic variables that could help explain the migration status of the household, such as household size, and the age and gender of the household's head (see Box 1 for a detailed description of the methodology and for the summary statistics of the variables that proxied the push factors).

54 Other related evidence on the link between natural hazards and migration is found in Baez et al. (2017a), Baez et al. (2017b), and (Kury and Redo, 2021) who find that internal migration in Northern Central America countries is related to extreme climate events such as hurricanes, droughts, and heatwaves.

55 In addition, Inkpen, Pitts, and Lattimore (2021) show that violence (being victimized) is positively correlated with the intention to migrate in these three NCA countries.

Box 1. Methodological approach

It is possible to distinguish between two approaches when exploring the determinants of migration in the economic literature. In the first, studies exploit time variation (of both migration flows and the driving factor) using panel data or a difference-in-differences setting. In the second, studies use Linear Probability models or binary choice (logit/probit) models to explore the determinants of the probability to migrate (or to have a migrant household member). Since our data are cross-sectional and do not provide variation over time, this report follows the second approach. Specifically, we present the results of a Probit model, as it is more adequate when explaining the behavior of a dichotomous variable (in this case, if the household has a person who migrated at any point in time).

The specification used is as follows:

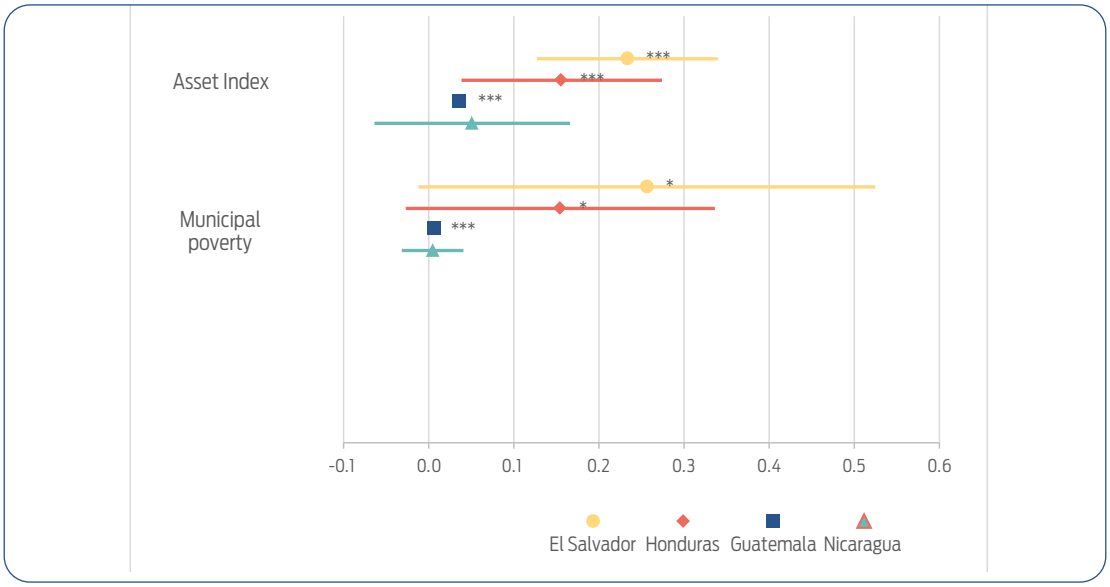
$$Prob(migrant\ HH\ member = 1)_{ij} = \phi(\alpha + \beta_1 \cdot municipal\ poverty_j + \beta_2 \cdot asset\ index_i + \beta_3 \cdot homicides\ rate_j + \beta_4 \cdot natural\ disasters_j + \beta_5 \cdot homicides\ rate_j \cdot natural\ disasters_j + \gamma \cdot controls_i)$$

Where $\phi(\cdot)$ is the cumulative standard normal distribution function. The dependent variable takes the value of one if the household i in municipality j has a migrating member, and zero otherwise. Controls at the household level include: household size; gender of the household head; a dichotomic variable of labor status of the household head; age of the household head; a dichotomic variable of formal/informal employment status of the household head; urban area dummy; and remittances (log). The specification also considers the potential interaction between natural hazards and violence in order to explore if a reinforcing effect exists between these factors. See Table D.1 and Table D.2 in Annex D for the definition and descriptive statistics of all the variables included in the model.

The higher the poverty rate at the municipal level, the more likely it is for households to have a migrant household member, suggesting that migration is an escape valve from lack of economic opportunities. The estimates show some variability, with an increase of 1 percent in the municipal poverty rate associated with an increase of 0.06 percentage points in the probability of being a migrant household in Guatemala. For El Salvador, this magnitude rises up to 0.256 percentage points. As for Honduras, the result lies between those two, with a 0.155 percentage points increase in the probability of migration.

At the same time, while migrants are coming from the poorest regions of NCA countries, they are not coming from the poorest households. The marginal effects[56] of the asset index show that those households with higher wealth (proxied by ownership of durable goods) are more likely to have a migrant household member. Once more, this result is found for El Salvador, Honduras, and Guatemala, but not for Nicaragua, where the sign of the coefficient is correct but not statistically significant. As with municipal poverty, the estimates vary from country to country. As a result of a one-point increase in the asset index (or one percentage point, given it ranges from 0 to 100), the average marginal effect on the probability of having a migrating household member goes up by 0.035 percentage points in Guatemala. The probability of having a migrate member increases to 0.15 percentage points in Honduras and 0.233 percentage points in El Salvador (see Figure 18). Given that migration is costly (transportation costs, logistical costs, etc.), the fact that wealthier households are more likely to have a migrant member is not surprising. The finding is also aligned with a large body of economic literature (globally and for the region) that concludes that migration takes place mostly amongst those in the middle of the income/wealth distribution.

FIGURE 18:
ECONOMIC OPPORTUNITIES/LIVING STANDARDS AND MIGRATION (MARGINAL EFFECTS)



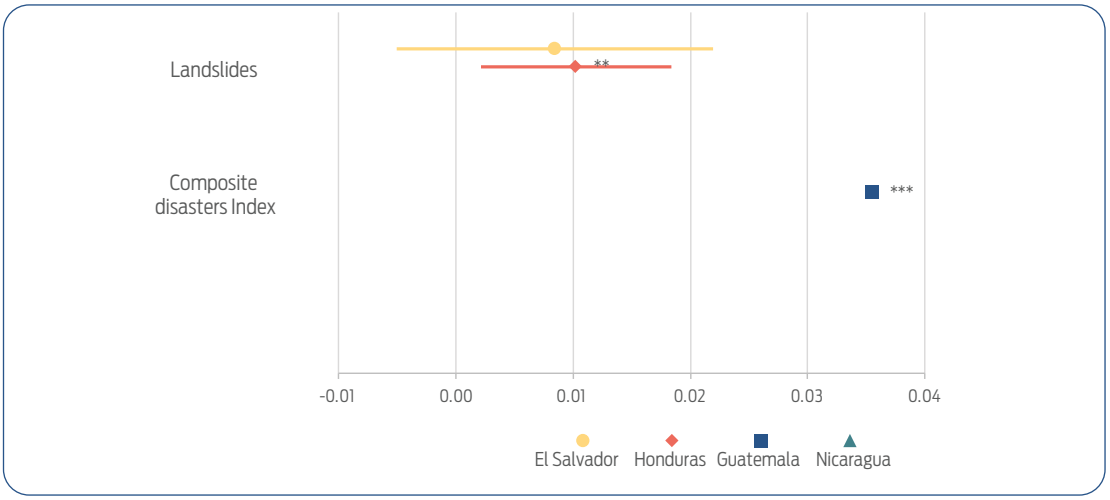
*** p<0.01, ** p<0.05, * p<0.1

Note: Each point shows the marginal effect of each variable, alongside its confidence interval. The marginal effect is obtained from a Probit model, including covariates. Household level covariates include: household size; gender of the household head; labor status of the household head; age of the household head; years of education of the household head; formal/informal employment status of the household head; urban area dummy; and remittances (log). Municipal-level covariates include: municipal-level poverty (Honduras and El Salvador) and municipal-level rural monetary poverty (Guatemala). The asset index is calculated for each household. Marginal effects are calculated as average marginal effects.

56 These are marginal effects at the median (MEM).

The results of the analysis suggest that the occurrence of (or risk to) natural hazards is positively but weakly correlated with a higher probability of migration. The empirical results show that migration and natural hazards are positively correlated in two of the four countries studied in this report – namely, Honduras and Guatemala (see Figure 19). In Honduras, one additional landslide a year at the municipal level increases the probability of being a migrant household (i.e., of having one migrant member of the household) by 0.01 percentage points. This comprises a modest magnitude. In Guatemala, by contrast, a one-unit increase in the Composite Risk Index[57] increases this same probability by 0.035 percentage points.[58]

FIGURE 19:
NATURAL HAZARDS AND MIGRATION (MARGINAL EFFECTS)



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

Note: Each point shows the marginal effect of each variable, alongside its confidence interval. The marginal effect is obtained from a Probit model, including covariates. Household level covariates include: household size; gender of the household head; labor status of the household head; age of the household head; years of education of the household head; formal/informal employment status of the household head; urban area dummy; and remittances (log). The composite disasters index ranges from 0 – 10, with 0 being the lowest risk and 10 the highest risk. Marginal effects are calculated as average marginal effects.

The empirical analysis does not support the hypothesis that there is a correlation between violence and migration. More specifically, no association is found between the homicides rate (at the municipal level) and the probability of having a migrant household member (our indicator for migration)

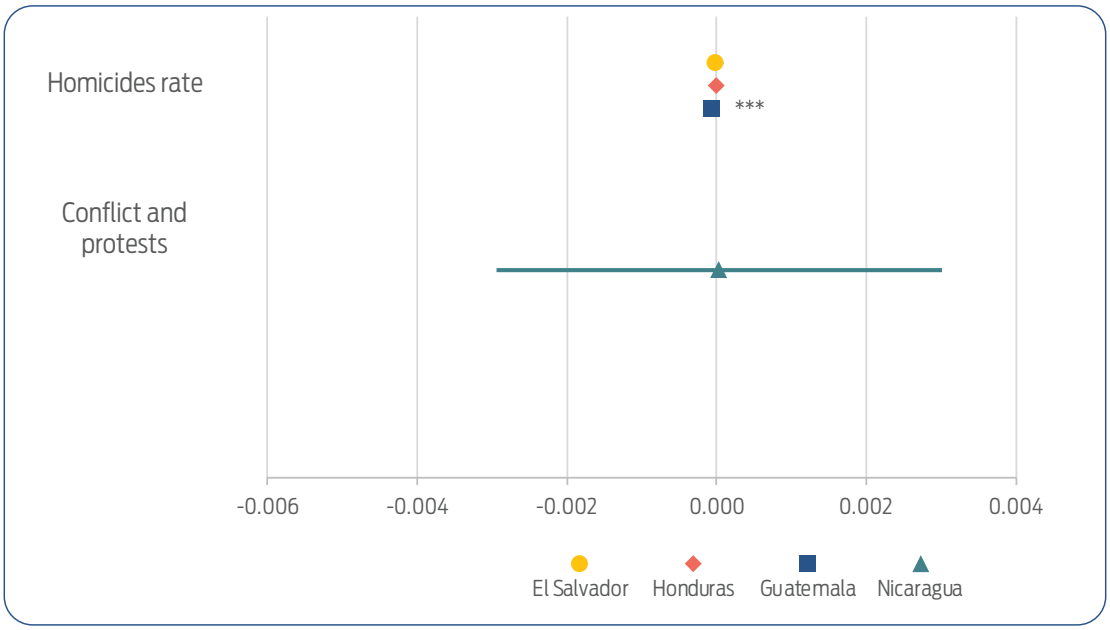
57 INFORM Guatemala is an index that assesses the level of risk of disasters and humanitarian crises of its 340 municipalities, integrating information on their exposure to different threats, vulnerability, and response capacity. This municipal risk index simplifies information on crisis risk and is made up of 29 indicators that represent the three dimensions of risk – namely, risk and exposure, vulnerability, and lack of coping capacity.

58 We tested other variables related to climate hazards, such as hurricanes, earthquakes, floodings, and droughts. None of these variables had a systematic and significant effect on migration incidence. It must be noted that other phenomena such as rainfall, snowmelt, changes in water level, stream erosion, changes in ground water, earthquakes, and volcanic activity could trigger landslides. In this sense, this hazard could in some way synthetize the occurrence of other natural phenomena (Highland and Bobrowsky, 2008).

in the case of Honduras and El Salvador (See Figure 20). The same is true for Nicaragua[59], where, given the lack of homicide data at this administrative level, the number of protests is used at the municipal level as a proxy for violence (See Figure 20). In the case of Guatemala, the coefficient (of the homicide rate) is statistically significant but close to zero (-0.0000710), suggesting a negligible correlation when other key factors are considered (such as socio-economic factors and natural hazards).

Overall, the lack of a statistically significant correlation between violence and migration can be explained by several factors. Firstly, an important time dimension of the relationship may be missing given that the exact *timing* of migration is unavailable. Secondly, while homicide rates are a proxy for overall levels of violent crimes, they may not fully capture other types of violence that affect migration. Given the fact that the evidence is inconclusive, more research efforts should aim to disentangle the possible association going forward.

FIGURE 20:
VIOLENCE, AND MIGRATION (MARGINAL EFFECTS)

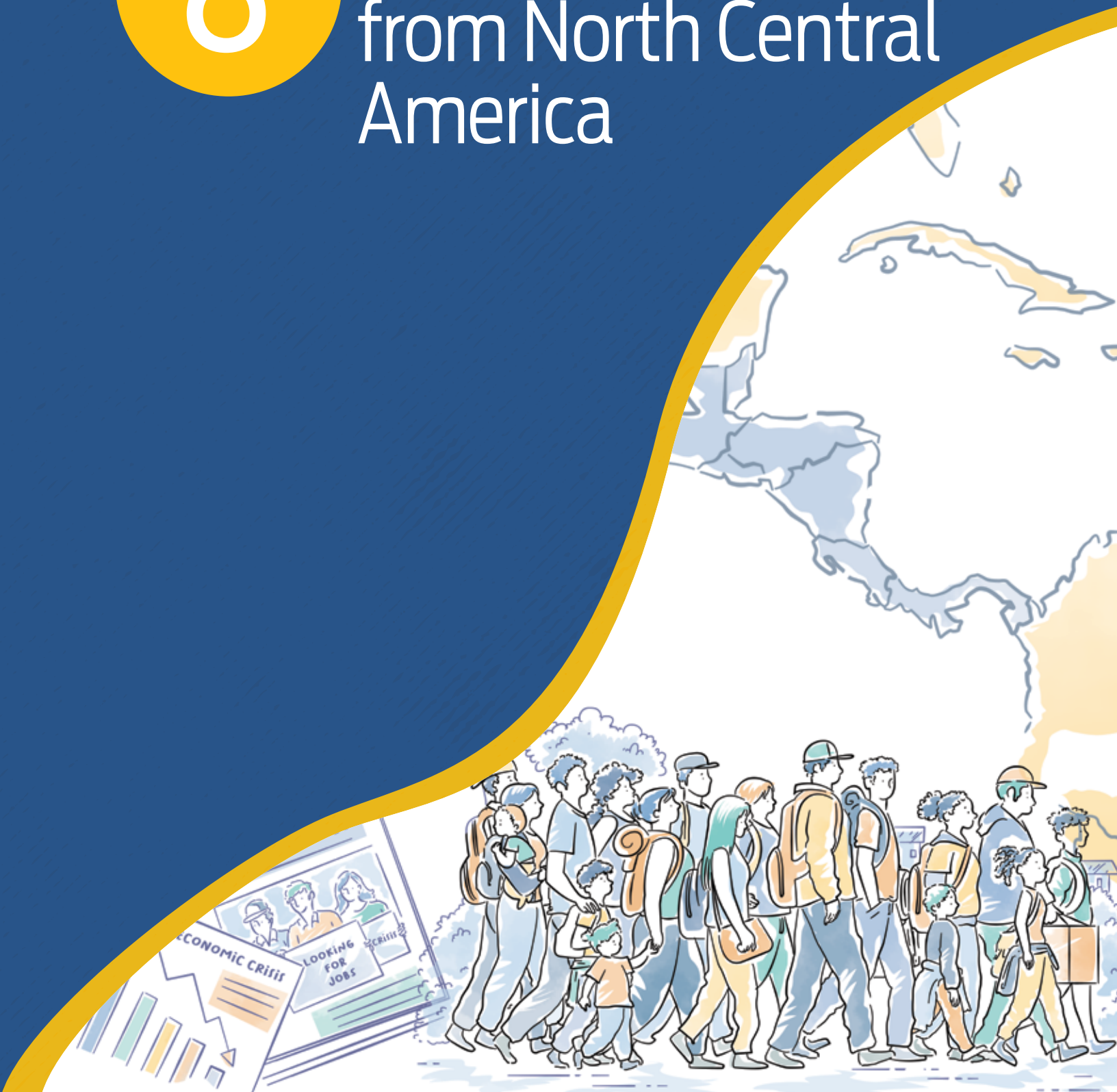


*** p<0.01, ** p<0.05, * p<0.1

Note: Each point shows the marginal effect of each variable, alongside its confidence interval. The marginal effect is obtained from a Probit model, including covariates. Household level covariates include: household size; gender of the household head; labor status of the household head; age of the household head; years of education of the household head; formal/informal employment status of the household head; urban area dummy; and remittances (log). Homicides rates are measured as the sum of homicides from 2014 to 2018, divided by municipal population. In turn, conflict and protests are the absolute number of protests by department in Nicaragua. Marginal effects are calculated as average marginal effects.

59 We tried a different specification for the model, using the interaction of a dummy variable (indicating a category 1 hurricane) and the number of protests. The results of this model were however similar to the original specification, with a non-significant coefficient for the interaction term.

6 Understanding pull factors of migration from North Central America



This section analyzes the change in the profile of recent NCA migrants residing in the United States over the last two decades. Moreover, it studies some of the factors that attract migrants into the United States ('pull factors'), such as employment and living conditions. The profile of migrants considers the three-year cohort of NCA migrants who arrived in the United States by 2010, 2013, 2016, and 2019, in terms of age, gender, and education. Regarding the pull factors, the analysis compares the situation between the 10-year cohort of NCA migrants in the United States, on the one hand, and NCA residents in the year circa 2019, on the other (for more details, see Section 3).

Over the past two decades, the age at arrival of NCA migrants in the United States has decreased while the share of female migrants has increased. **In addition, better employment opportunities as well as better living standards seem to attract migrants.** Indeed, the employment rate among NCA migrants was higher than nationals in NCA countries. Interestingly, a higher share of employed NCA migrants were working in the services and industry sectors, compared to their peers living in NCA countries. Furthermore, the average wage that NCA migrants earned in the United States is higher than the wage they would have earned if they had remained in their country of origin. In addition, there is evidence that NCA migrants who decide to migrate are positively selected (in the sense that the expected earnings of the migrants exceed the expected earnings of the stayers). Regarding living conditions, NCA migrants reported higher access rates to water, sanitization, and internet, as well as higher ownership of a computer. Other important pull factors, such as family reunification, are beyond the scope of this study due to a lack of data.

6.1. WHAT DO WE KNOW?

Better social and economic prospects of living in the country of destination, and the prospects of family reunification, traditionally referred to as pull factors, are crucial elements in the decision to migrate. Better labor opportunities, including higher wages, and access to public services, such as education and health, are factors that attract (or 'pull') individuals to certain destinations. The results of the 2018 Survey of Northern Triangle Migrants aged 18 years old and above (residing in the United States) show that economic opportunities were the main reason to migrate for individuals from El Salvador, Guatemala, and Honduras (Abuelafia et al., 2019).[60] Similarly, in 2021, more than 80 percent of Hispanics living in the United States declared they have better opportunities in this country compared to the country of origin of their ancestors. In addition, a high percentage of respondents mentioned that conditions for raising children (76 percent) and access to health care services (69 percent) are better in the United States.[61] Furthermore, the large majority (close to 84 percent) reported they do not regret migrating to the United States (Pew Research Center, 2022).

60 Migrants aged 18 and over who arrived in the United States in the last decade from El Salvador, Guatemala, and Honduras living in the three major metropolitan areas: Washington, D.C., Los Angeles, and New York.

61 Survey conducted among 3,375 US Hispanic adults in March 2021. This includes Hispanics born in the United States as well as those born outside the country.

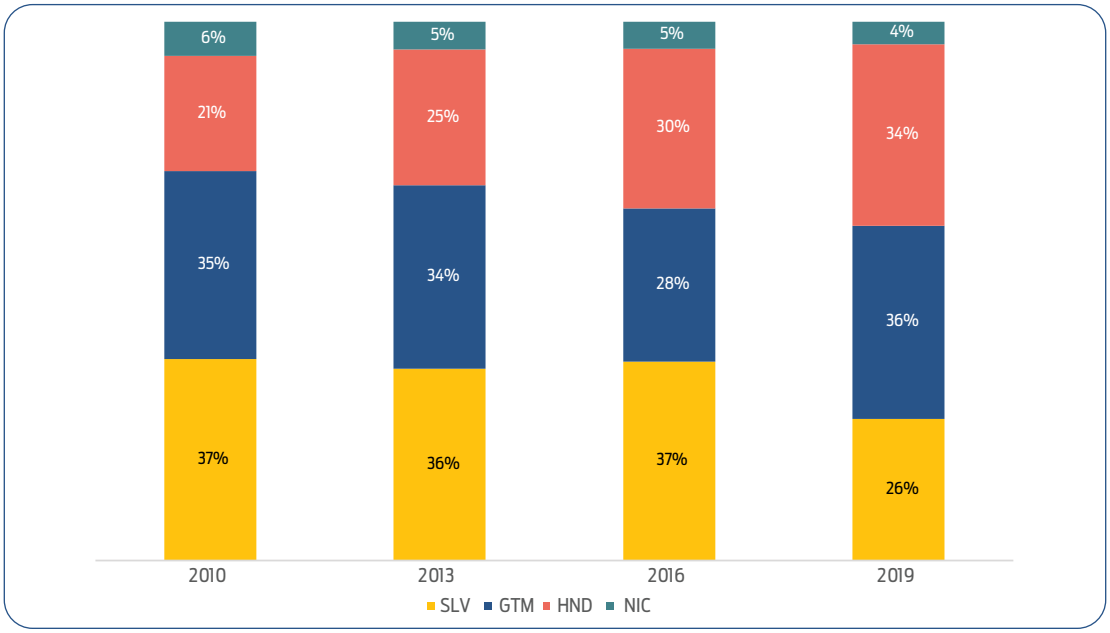
Many studies provide evidence of positive selection bias among recent NCA migrants living in the United States. Contrary to the negative selection hypothesis that states that less qualified individuals are more likely to migrate (Borjas, 1987), an intermediate and positive selection was found among Mexicans living in the United States. That is, individuals from the middle and upper wage distribution in Mexico were more likely to migrate (Chiquiar & Hanson, 2005). Similar results were found for migrants from El Salvador, Guatemala, and Honduras living in the United States who arrived in the 10-year period leading up to 2000 and 2014. For these NCA countries, the probability of migrating is larger among individuals with observable characteristics associated with a higher income. Nevertheless, the extent of positive selection declined over time (Del Carmen & D. Sousa, 2018).

It is well established that family and community networks at the country of destination increase the probability of migration. Support from the family and communities already settled in destination countries may facilitate migration by reducing costs and providing access to networks and information (Dolfin & Genicot, 2010). The 2018 Survey of Northern Triangle Migrants showed that 93 percent of migrants from Guatemala, El Salvador, and Honduras arrived at the house of a relative or friend in the United States (Abuelafia et al., 2019). Furthermore, family reunification is the second most important reason for migrating, after economic motives (IOM, 2017 and USAID & IOM, 2022). Indeed, among Hondurans, Guatemalans, and Salvadoreans, 31 percent, 44 percent, and 45 percent, respectively, reported family reunification as the main driver behind their decision to migrate (Abuelafia et al., 2019).

6.2. PROFILE OF NORTH CENTRAL AMERICAN MIGRANTS IN THE UNITED STATES

In 2019, there was a stock of around 3.7 million NCA migrants living in the United States, of which 40 percent were from El Salvador, 32 percent from Guatemala, 21 percent from Honduras, and 7 percent from Nicaragua. In terms of migrant flow, the composition of the three-year cohort of migrants who arrived in the United States by 2019 shows that the largest proportion came from Guatemala (36 percent), followed by Honduras (34 percent) and El Salvador (26 percent). Of the four NCA countries, Nicaragua is by far the least represented (4 percent). The proportion of migrants arriving from Guatemala remained more or less constant between 2010 and 2019, at 36 percent of the total NCA migrants (it declined to 28 percent in 2016). In the case of Honduras, there was a gradual increase during the same period, from 21 percent in 2016 to 34 percent in 2019. In contrast, the proportion of Salvadoreans fell from 37 percent in 2016 (when the figure was at its highest) to 26 percent by 2019. The small proportion of NCA migrants coming from Nicaragua has remained close to 5 percent over time (Figure 21).

FIGURE 21:
PROPORTION OF THE THREE-YEAR COHORT OF NCA MIGRANTS BY COUNTRY OF ORIGIN



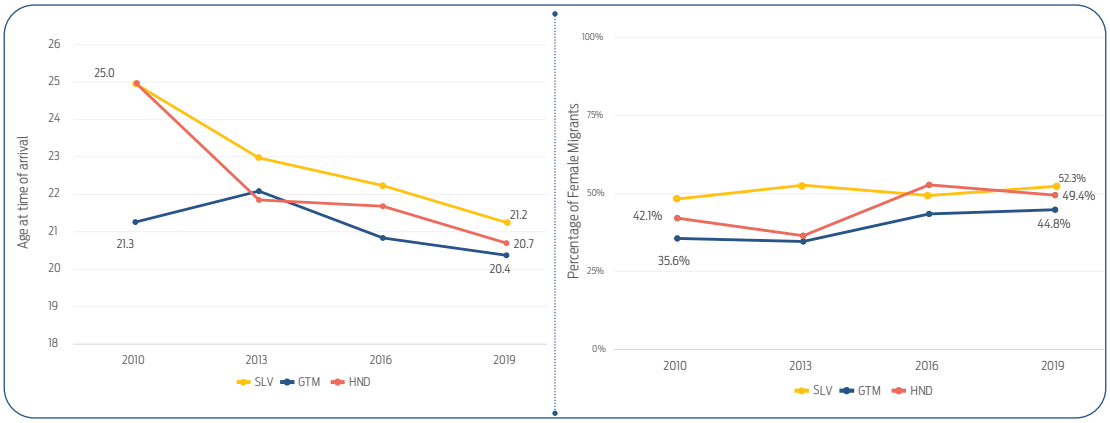
Source: Authors' elaboration based on the 2010, 2013, 2016 and 2019 ACS 1-year. The sample includes the three-year cohort migrants from NCA countries.

The profile of NCA migrants has changed since 2010, with a move towards migrants who are younger and an increase in the share of women.[62] In the early 2010s, migrants from El Salvador and Honduras were on average in their mid-twenties (25 years old) when they first moved to the United States. In contrast, nearly a decade later, individuals who migrated were on average in their early twenties (22 years old) (Figure 22). Moreover, in El Salvador, Honduras, and Guatemala, the last decade saw an increase in the proportion of female migrants: around half of Salvadoran and Honduran migrants were women in 2019, an increase of 4 percentage points and 7 percentage points, respectively, when compared to 2010. Likewise, among Guatemalan migrants, the proportion of women increased from 35.6 percent to 44.8 percent, an increase of over 9 percentage points (Figure 23). These results suggest that migrants from NCA countries have become more vulnerable in the past ten years, given that younger individuals and females are more prone to the risks of the journey, such as violence, sexual abuse and harassment, and the overall strenuous conditions of travelling (which may include walking through the dessert and crossing rivers). The feminization of migration from NCA countries is also linked to high levels of sexual and gender-based violence that women face in their home countries (Flores & Berenguier, 2021; Anguita & Sampó, 2021; and Reyes, 2014).

62 Nicaragua is excluded from the analysis due to considerations about sample size.

FIGURE 22:
AVERAGE AGE AT ARRIVAL IN THE UNITED STATES BY COUNTRY

FIGURE 23:
FEMALE MIGRANTS BY COUNTRY



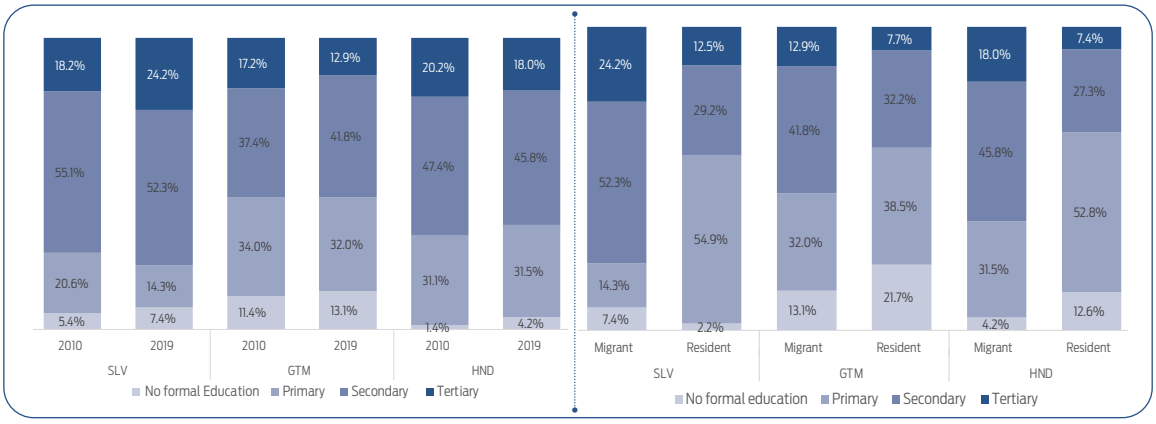
Source: Authors' elaboration based on the 2010, 2013, 2016, and 2019 ACS 1-year. The sample includes the three-year cohort migrants from NCA countries.

The education level of NCA migrants who were 18 or older at the time of arrival in the United States has remained relatively stable in the last decade, with three quarters having completed at least secondary education by 2019. The proportion of recent migrants from Latin America with tertiary or higher education more than doubled in the last three decades, reaching 26 percent in 2018 from 10 percent in 1990 (Noe-Bustamante, 2020). Nevertheless, when the three-year 2019 cohort of NCA migrants is compared with the 2010 cohort, no clear trend is observed. Indeed, in 2019, Salvadorean migrants were slightly more educated than the 2010 cohort, while there was no variation among Guatemalan migrants, and the share with secondary or tertiary education decreased among Honduran migrants. Overall, around 77 percent of migrants had secondary or tertiary education in 2019, a modest increase of 3 percentage points compared to the 2010 cohort (Figure 24).

Notably, NCA migrants aged 18 and above at the time of arrival in the United States were, on average, more educated than their national counterparts. In 2019, for all countries, more than half of migrants had some secondary or tertiary education, while their national counterparts mostly had no formal or primary education. Indeed, almost 77 percent of recent Salvadorean migrants living in the United States had secondary or tertiary education in 2019, while this figure reached 42 percent among nationals living in El Salvador. Similarly, 55 percent of Guatemalan migrants and 64 percent of Honduran migrants living in the United States had secondary or tertiary education, as compared to 40 percent and 35 percent among their respective national counterparts (Figure 25). All things considered, recent migrants from NCA countries that reside in the United States are younger and more educated (in comparison to their national counterparts) and have the potential to play an important role in the socio-economic development of these countries. These findings underline the costs in terms of human capital and in terms of potential labor force supply for sending countries.

FIGURE 24:
THE THREE-YEAR COHORT OF NCA MIGRANTS AGED 18+ AT THE TIME OF ARRIVAL IN THE UNITED STATES, BY EDUCATIONAL LEVEL

FIGURE 25:
THE THREE-YEAR COHORT OF NCA MIGRANTS AGED 18+ AT THE TIME OF ARRIVAL IN THE UNITED STATES AND RESIDENTS AGED 18+, BY EDUCATIONAL LEVEL (CIRCA 2019)



Source: Authors' elaboration using a variety of data sources. The left figure is based on the 2010, 2013, 2016, and 2019 ACS 1-year. The sample includes the three-year cohort of migrants from NCA countries who were 18 years or older at the time of their arrival in the United States. In the right figure, information about migrants comes from the ACS, while the information about residents comes from the 2020 Multipurpose Household Survey for El Salvador, the 2019 Multipurpose Household Survey for Honduras, and the 2018 Census for Guatemala. Nicaragua is not included in the analysis because the 2021 Survey to Evaluate the Impact of Financial and Productive Interventions in Rural Areas of Nicaragua is not representative at the national level, while there are few cases in the ACS to characterize Nicaraguan migrants at the educational level.

6.3. LABOR MARKETS OUTCOMES AS PULL FACTORS

The probability of being employed in 2019 was higher among NCA migrants in the United States than among NCA residents in 2019.[63] The prospect of job opportunities has been one of the economic factors that attracts individuals to migrate to the United States. This seems to be particularly true in the case of Guatemala, where the gap between employed migrants and employed residents (among the 21-to-65-year population) was close to 20 percentage points. This is not surprising given that access to high-quality jobs in Guatemala is limited by its large informal sector, skill mismatch (between what the labor supply and the firms' demands), and low productivity (World Bank, 2022, and Robayo-Abril & Chelles, 2022). In the case of El Salvador, the gap was close to 9 percentage points, while the gap for Honduras was not significant (1 percentage point) (Figure 26). A comparison for Nicaragua is not possible due to data limitations; however, around 75 percent of Nicaraguan migrants in the United States were employed in 2019.

Regarding sector of employment, NCA migrants (with the exception of Hondurans) in the United States are mainly employed in the services sector, particularly in restaurants and other food services, followed by industry, particularly construction. For all countries of interest, the proportion of migrants employed in the services sector is higher than the proportion of residents

63 In general terms, an employed person is someone who worked the previous week, who had a job to return to, or who did any work for pay (even of only for one hour).

employed in that same sector: 55 percent vs. 21 percent for El Salvador, 45 percent vs. 36 percent for Guatemala, and 41 percent vs. 17 percent for Honduras. This is also true for industry: 35 percent vs. 23 percent for El Salvador, 42 percent vs. 19 percent for Guatemala, and 48 percent vs. 22 percent for Honduras. In sum, compared to the average worker back in their country of origin, migrants are employed at higher rates in sectors – both secondary and tertiary – with higher productivity and higher value added. Thus, the structure of the labor market and the types of jobs that they are able to access in the United States are likely factors that attract them (Figure 27).

FIGURE 26:
THE 10-YEAR COHORT OF EMPLOYED NCA MIGRANTS AND RESIDENTS AGED 21-65 WHO ARE EMPLOYED (CIRCA 2019)

FIGURE 27:
THE 10-YEAR COHORT OF EMPLOYED NCA MIGRANTS AND RESIDENTS AGED 21-65, BY SECTOR (CIRCA 2019)

Source: Authors' elaboration using a variety of data sources. Information about migrants comes from the 2019 ACS 1-year, while the information about residents comes from the 2020 Multipurpose Household Survey for El Salvador, the 2019 Multipurpose Household Survey for Honduras, and the 2018 Census for Guatemala. The migrant sample includes the 10-year cohort of migrants aged 21-65 from NCA countries who were 18 years or older at the time of their arrival in the United States, while the resident sample includes the population aged 21-65. Nicaragua is not included in the analysis because the 2021 Survey to Evaluate the Impact of Financial and Productive Interventions in Rural Areas of Nicaragua is not representative at the national level, and comparisons with the ACS results are not accurate.

Overall, average wages in the United States are higher than in NCA countries (even when purchasing power parity is taken into account), and the prospect of higher wage income is one of the main reasons for migrating. However, to arrive at an accurate assessment it is necessary to compare the wage distribution of migrants had they stayed and worked in their home countries (See Box 2), on the one hand, with the actual wage distribution reported by migrants in the United States, on the other. This comparison considers two important issues: (i) the actual wages that migrants were earning in the United States, considering that it may be lower than what the average wage that observable characteristics would predict (due for example to discrimination); and (ii) the fact that migrants seem to be more educated than their national counterparts, and thus the salary they would earn back home is probably higher than the average wage observed in the labor market.

Box 2. The Counterfactual Wage of NCA migrants

The counterfactual wage refers to the wage that NCA migrants would have earned in their home country if they had not migrated to the United States. Employment opportunities in the United States attract individuals from other countries hoping to secure a better future. Comparing the actual wage distribution of NCA migrants in the United States with their counterfactual wage distribution contributes to understand: (i) whether NCA migrants do indeed earn a higher wage in the United States as compared to the potential wage that they would have earned in the home country; and (ii) whether it is the most qualified or the least qualified who are more likely to migrate. This study analyzes the counterfactual wage distribution for NCA migrants living in the United States based on the previous work carried out by Del Carmen & D. Sousa, 2018, who in turn use the methodology developed by Chiquiar & Hanson, 2005. The latter estimate the counterfactual wage considering: (i) the difference in the skill set between those who migrate and those who do not (residents in the home country); and (ii) the difference in the process of skills between both labor markets (destination country and home country). In general, Chiquiar & Hanson (2005) calculate what the wage of migrants would be in their home country considering the home country's wage structure. Then, it is possible to compare the counterfactual wage distribution of migrants with the actual wage distribution of migrants. The authors pointed out that the methodology suffers from unobservable variables that could have implications on positive or negative selection. In addition, it fails to consider the global impact of migration as in a general equilibrium model.

The main equation – the original denotation was modified to reflect the countries of interest in this report – estimates the selection bias by comparing the counterfactual wage distribution of NCA migrants (considering the skill prices and labor force participation of NCA residents) with the wage distribution of NCA residents. For simplicity, the NCA denotation is used; however, the methodology is applied for the four selected NCA countries separately.

$$g_{US}^{NCA}(\omega) - g^{NCA}(\omega) = \int (\theta^M - 1) f^{NCA}(\omega|x)\, h(x|i = NCA, D_i = 1)\, dx$$

Where θ^M is the probability that NCA individual i is in the United States over the probability that NCA individual *i* is in NCA countries. In other words, θ^M is the weight used to estimate the counterfactual wage distribution of NCA migrants considering the skill prices and labor participation of NCA residents.

$$\theta^M = \frac{\Pr(i = US|x)}{\Pr(i = NCA|x)}$$

In addition, the difference between the wage distribution of NCA migrants in the United States with the counterfactual distribution would they have stayed in their countries is reported to shed some light on whether migrants achieved better economic status.

For more details on the methodology, see Chiquiar & Hanson (2005) and Del Carmen & D. Sousa, (2018).

The empirical results clearly show that higher wages represent a strong pull factor for individuals coming from NCA countries: migrants living in the United States earned at least three times the wage they would have earned if they had not migrated (adjusting for purchasing power parity). As expected, if migrants from the four NCA countries had not migrated, they would have earned a much lower wage in comparison with their current wages in the United States (Table 1 and Figure 28). It should be noted that these wages consider the parity of purchasing power between all different countries. In 2019, Honduran migrants' wages were 4.3 times higher than the wages they would have earned if they had remained in their home country. The difference was 3.5 times in the case of Salvadorean migrants. Similarly, in 2014, the gap was around 3.3 times for Guatemalan and Nicaraguan migrants.

Over time, while the prospect of higher wages in the United States remains a driver of NCA migration, the gap appears to be slowly narrowing, except for Honduran migrants. Interestingly, the wage gain for migrants from El Salvador slightly decreased between 2000 and 2019, from 3.8 times to 3.5 times. Meanwhile, wages gains went from 3.5 to 3.3 times for Guatemalan migrants and from 4.4 to 3.2 times for Nicaraguan migrants between 2000 and 2014 (Table 1). In contrast, the wage gain seemed to increase for Honduran migrants from 3.6 times in 2000 to 4.3 times in 2019. All factors considered; the gap remains being relevant despite the overall decline (Figure 28).

TABLE 1:
MEDIAN HOURLY WAGE (2011 PPP US$) FOR 10-YEAR COHORT OF NCA MIGRANTS IN THE UNITED STATES AND THE COUNTERFACTUAL WAGE IN THE COUNTRY OF ORIGIN

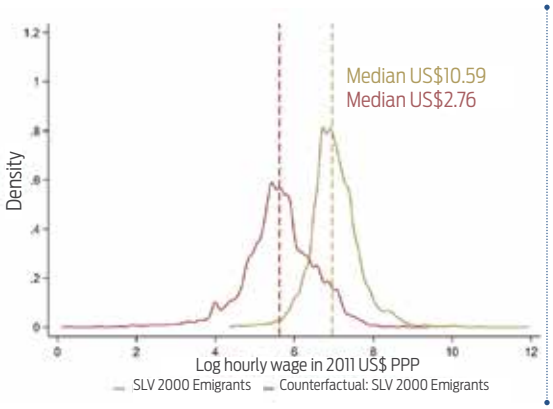
Country	Year	Emigrants	Counterfactuals	Contrafactual/ Migrants
SLV	2000	$10.59	$2.76	3.84
	2014	$9.23	$2.49	3.71
	2019	$10.56	$3.01	3.51
GTM	2000	$10.59	$3.03	3.50
	2014	$8.94	$2.72	3.29
HND	2000	$10.34	$2.86	3.62
	2014	$8.97	$2.81	3.19
	2019	$10.54	$2.44	4.32
NIC	2000	$10.88	$2.48	4.39
	2014	$9.78	$3.07	3.19

Source: Authors' elaboration using a variety of data sources. Information about migrants comes from the 2000 5 percent Public-Use Microdata Sample (PUMS) from the U.S. Census of Population and Housing, and the 2014 and 2019 US ACS 5-year. The migrant sample includes the 10-year cohort of migrants aged 21-65 from NCA countries who were 18 years or older at the time of their arrival in the United States. The resident sample comes from the harmonized Socio-Economic Database for Latin America and the Caribbean (SEDLAC), including the 2000, 2014, and 2019 Multipurpose Household Survey for El Salvador; the 2001, 2014, and 2019 Multipurpose Household Survey for Honduras; the 2000 and 2014 National Living Standards Measurement Survey for Guatemala; and the 2001 and 2014 National Living Standards Measurement Survey for Nicaragua. The resident sample includes the population aged 21 to 65.

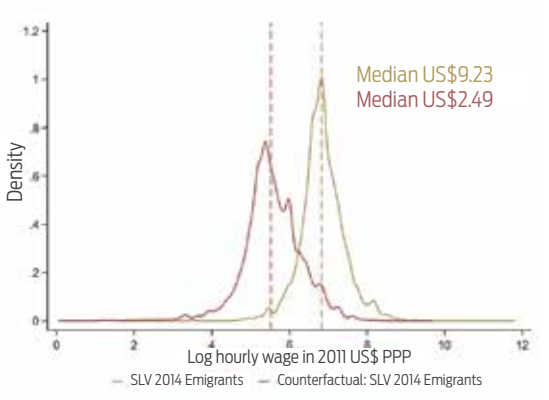
FIGURE 28:
WAGE DISTRIBUTION FOR NCA MIGRANTS IN THE UNITED STATES AND THEIR COUNTERFACTUAL WAGE DISTRIBUTION IN THE COUNTRY OF ORIGIN

PANEL 1. EL SALVADOR

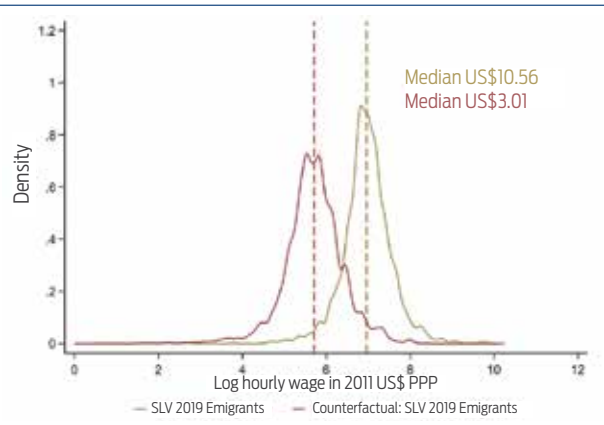
A. AÑO 2000



B. AÑO 2014



C. AÑO 2019

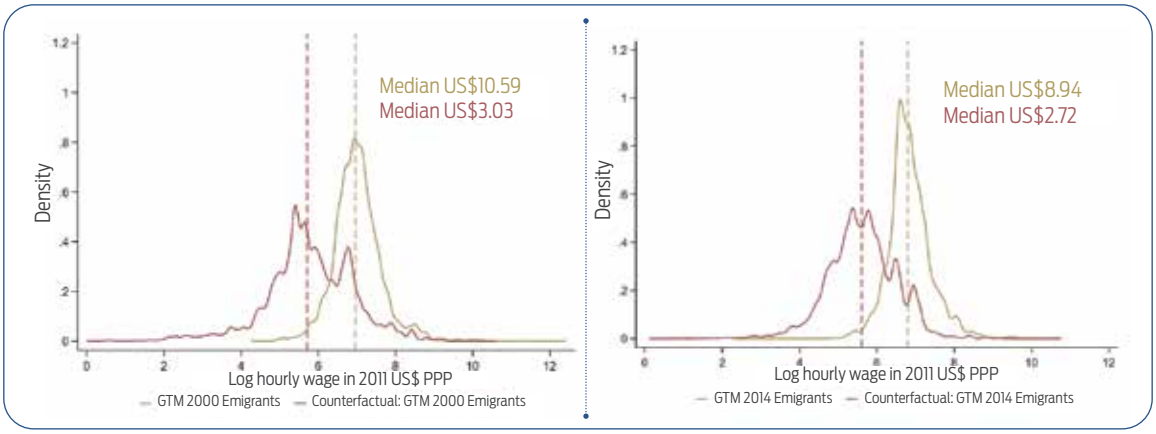


Source: Authors' elaboration using a variety of data sources. Information about migrants comes from the 2000 5 percent Public-Use Microdata Sample (PUMS) from the U.S. Census of Population and Housing, and the 2014 and 2019 US ACS 5-year. The migrant sample includes the 10-year cohort of migrants aged 21-65 from NCA countries who were 18 years or older at the time of their arrival in the United States. The resident sample comes from the harmonized Socio-Economic Database for Latin America and the Caribbean (SEDLAC), including the 2000, 2014, and 2019 Multipurpose Household Survey for El Salvador; the 2001, 2014, and 2019 Multipurpose Household Survey for Honduras; the 2000 and 2014 National Living Standards Measurement Survey for Guatemala; and the 2001 and 2014 National Living Standards Measurement Survey for Nicaragua. The resident sample includes the population aged 21 to 65.
Note: Median hourly wage (2011 PPP US$) is included in the upper right side of each graph.

PANEL 2. GUATEMALA

A. AÑO 2000

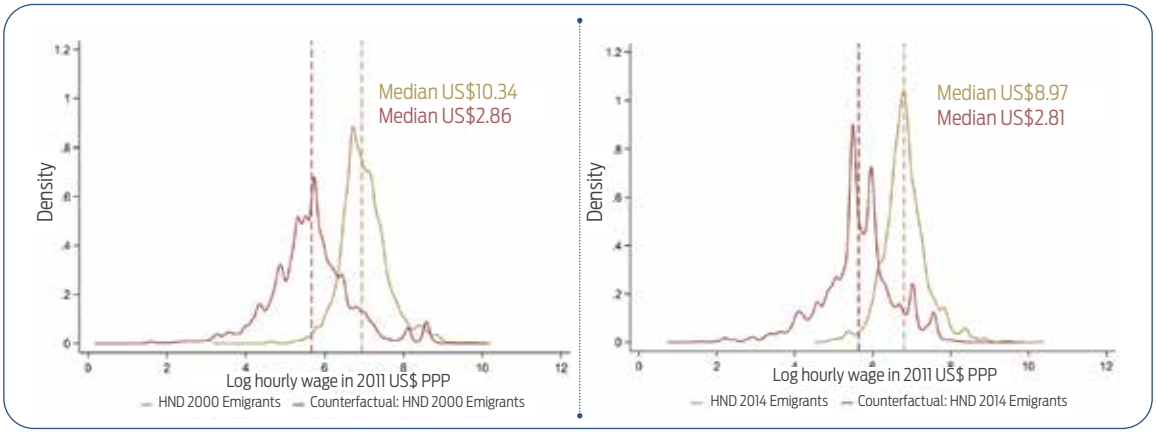
B. AÑO 2014



PANEL 3. HONDURAS

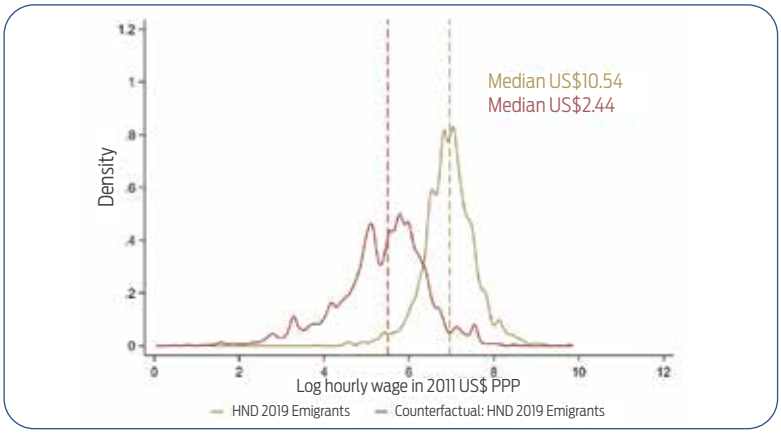
A. AÑO 2000

B. AÑO 2014



Source: Authors' elaboration using a variety of data sources. Information about migrants comes from the 2000 5 percent Public-Use Microdata Sample (PUMS) from the U.S. Census of Population and Housing, and the 2014 and 2019 US ACS 5-year. The migrant sample includes the 10-year cohort of migrants aged 21-65 from NCA countries who were 18 years or older at the time of their arrival in the United States. The resident sample comes from the harmonized Socio-Economic Database for Latin America and the Caribbean (SEDLAC), including the 2000, 2014, and 2019 Multipurpose Household Survey for El Salvador; the 2001, 2014, and 2019 Multipurpose Household Survey for Honduras; the 2000 and 2014 National Living Standards Measurement Survey for Guatemala; and the 2001 and 2014 National Living Standards Measurement Survey for Nicaragua. The resident sample includes the population aged 21 to 65.
Note: Median hourly wage (2011 PPP US$) is included in the upper right side of each graph.

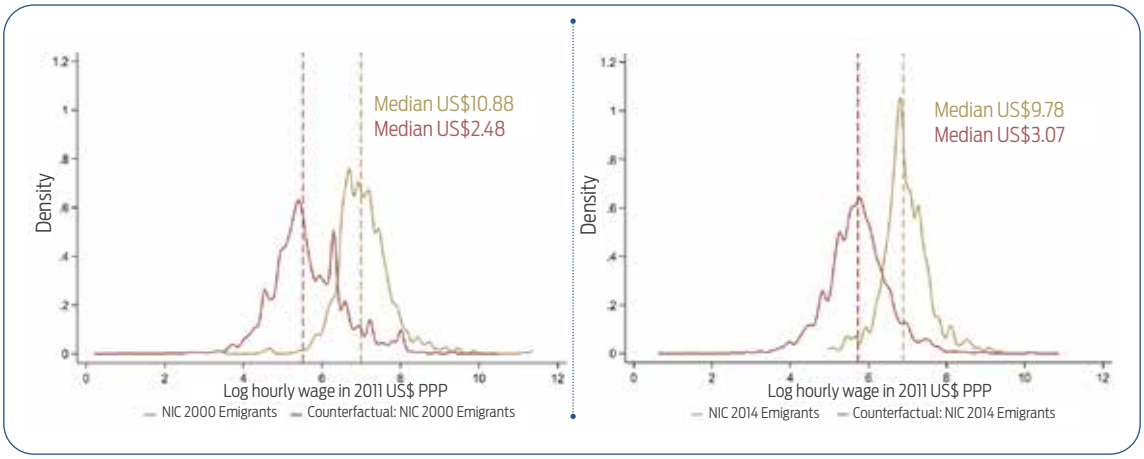
C. AÑO 2019



PANEL 4. NICARAGUA

A. AÑO 2000

B. AÑO 2014



Source: Authors' elaboration using a variety of data sources. Information about migrants comes from the 2000 5 percent Public-Use Microdata Sample (PUMS) from the U.S. Census of Population and Housing, and the 2014 and 2019 US ACS 5-year. The migrant sample includes the 10-year cohort of migrants aged 21-65 from NCA countries who were 18 years or older at the time of their arrival in the United States. The resident sample comes from the harmonized Socio-Economic Database for Latin America and the Caribbean (SEDLAC), including the 2000, 2014, and 2019 Multipurpose Household Survey for El Salvador; the 2001, 2014, and 2019 Multipurpose Household Survey for Honduras; the 2000 and 2014 National Living Standards Measurement Survey for Guatemala; and the 2001 and 2014 National Living Standards Measurement Survey for Nicaragua. The resident sample includes the population aged 21 to 65.
Note: Median hourly wage (2011 PPP US$) is included in the upper right side of each graph.

In addition, the results show that NCA individuals who migrate seem to be more qualified than the median worker in their country of origin. This positive selection is observed in terms of wages. If NCA migrants living in the United States had not migrated, they would have earned a higher salary than residents in NCA countries. The result is consistent with the findings of Del Carmen and D. Sousa (2018) for El Salvador, Guatemala, and Honduras – namely, that the more qualified in these countries decide to migrate. Also, there was a slight decrease in the positive selection bias between 2000 and 2019, except for Guatemala. This finding is explained to some extent by a reduction in the cost of migration due to networks or the community already settled in the country of destination. In the case of Salvadorean migrants, they would have earned 10 percent more than residents in El Salvador in 2000, while this wage gap was reduced to 4 percent in 2019. Similarly, this difference was reduced by 10 percentage points between 2000 and 2014 for Nicaraguan migrants compared to residents and by 2 percentage points between 2014 and 2019 for Honduran migrants compared to residents. In the case of Guatemala, the wage gap remained around 25 percent (Table 2 and Figure 29).

TABLE 2:
MEDIAN HOURLY WAGE (2011 PPP US$) FOR NCA RESIDENTS AND THE COUNTERFACTUAL WAGE FOR NCA MIGRANTS IN THE COUNTRY OF ORIGIN

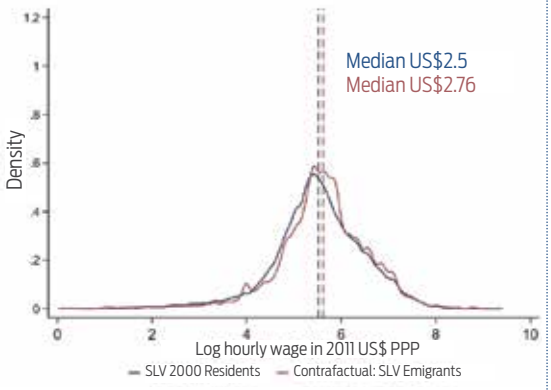
Country	Year	Residents	Counterfactuals	Contrafactual/ Residents
SLV	2000	$2.50	$2.76	1.10
	2014	$2.37	$2.49	1.05
	2019	$2.90	$3.01	1.04
GTM	2000	$2.42	$3.03	1.25
	2014	$2.16	$2.72	1.26
HND	2000	$2.29	$2.86	1.25
	2014	$2.20	$2.81	1.28
	2019	$1.94	$2.44	1.26
NIC	2000	$1.77	$2.48	1.40
	2014	$2.37	$3.07	1.30

Source: Authors' elaboration using a variety of data sources. Information about migrants comes from the 2000 5 percent Public-Use Microdata Sample (PUMS) from the U.S. Census of Population and Housing, and the 2014 and 2019 US ACS 5-year. The migrant sample includes the 10-year cohort of migrants aged 21-65 from NCA countries who were 18 years or older at the time of their arrival in the United States. The resident sample comes from the harmonized Socio-Economic Database for Latin America and the Caribbean (SEDLAC), including the 2000, 2014, and 2019 Multipurpose Household Survey for El Salvador; the 2001, 2014, and 2019 Multipurpose Household Survey for Honduras; the 2000 and 2014 National Living Standards Measurement Survey for Guatemala; and the 2001 and 2014 National Living Standards Measurement Survey for Nicaragua. The resident sample includes the population aged 21 to 65.

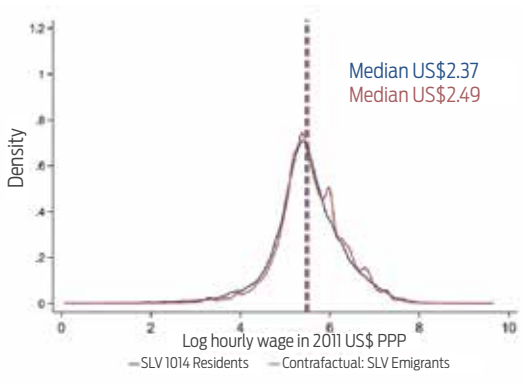
FIGURE 29.
WAGE DISTRIBUTION FOR NCA RESIDENTS IN THE COUNTRY OF ORIGIN AND THE COUNTERFACTUAL WAGE DISTRIBUTION FOR NCA MIGRANTS IN THE COUNTRY OF ORIGIN

PANEL 1. EL SALVADOR

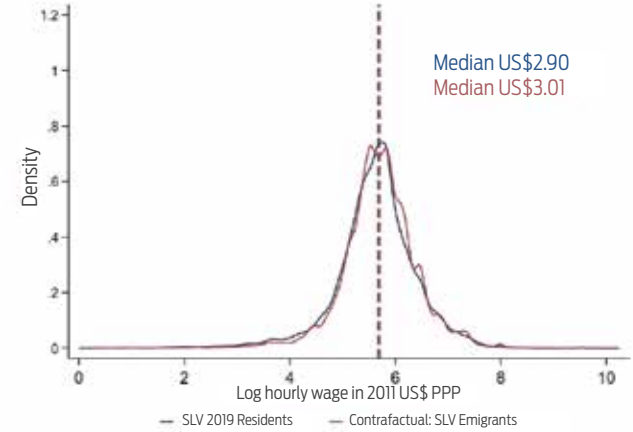
A. AÑO 2000



B. AÑO 2014



C. AÑO 2019

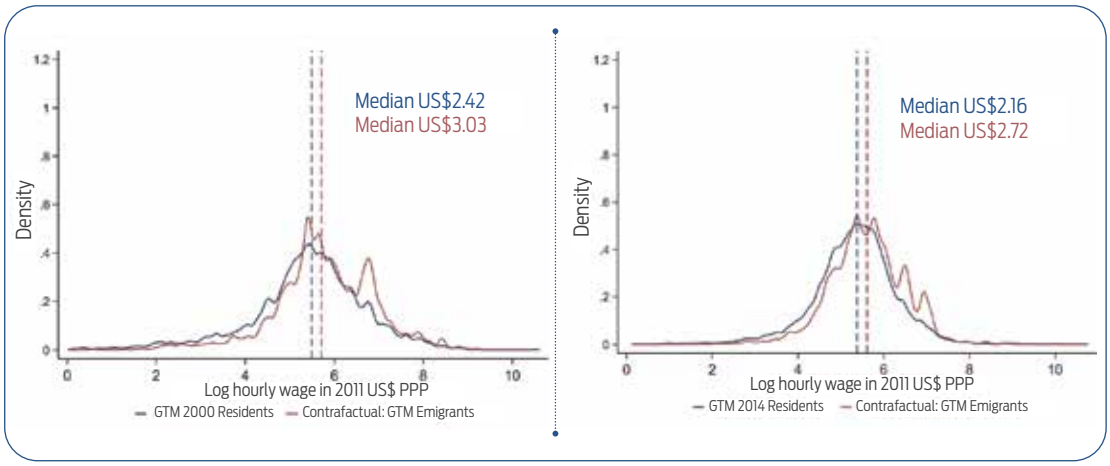


Source: Authors' elaboration using a variety of data sources. Information about migrants comes from the 2000 5 percent Public-Use Microdata Sample (PUMS) from the U.S. Census of Population and Housing, and the 2014 and 2019 US ACS 5-year. The migrant sample includes the 10-year cohort of migrants aged 21-65 from NCA countries who were 18 years or older at the time of their arrival in the United States. The resident sample comes from the harmonized Socio-Economic Database for Latin America and the Caribbean (SEDLAC), including the 2000, 2014, and 2019 Multipurpose Household Survey for El Salvador; the 2001, 2014, and 2019 Multipurpose Household Survey for Honduras; the 2000 and 2014 National Living Standards Measurement Survey for Guatemala; and the 2001 and 2014 National Living Standards Measurement Survey for Nicaragua. The resident sample includes the population aged 21 to 65. Note: Median hourly wage (PPP 2011 US$) is included in the upper right side of each graph.

PANEL 2. GUATEMALA

A. AÑO 2000

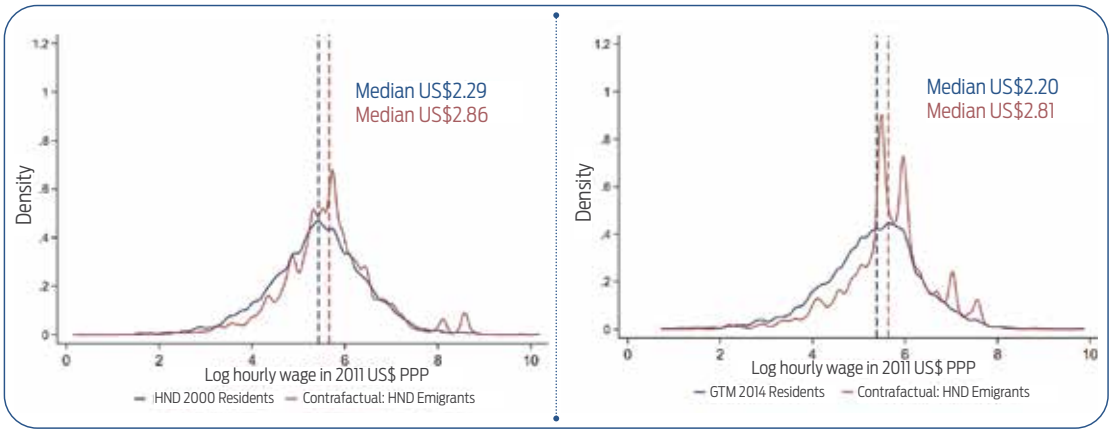
B. AÑO 2014



PANEL 3. HONDURAS

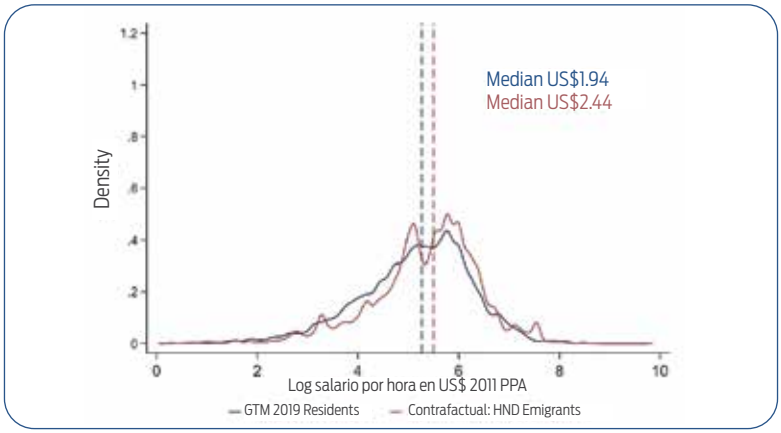
A. AÑO 2000

B. AÑO 2014



Source: Authors' elaboration using a variety of data sources. Information about migrants comes from the 2000 5 percent Public-Use Microdata Sample (PUMS) from the U.S. Census of Population and Housing, and the 2014 and 2019 US ACS 5-year. The migrant sample includes the 10-year cohort of migrants aged 21-65 from NCA countries who were 18 years or older at the time of their arrival in the United States. The resident sample comes from the harmonized Socio-Economic Database for Latin America and the Caribbean (SEDLAC), including the 2000, 2014, and 2019 Multipurpose Household Survey for El Salvador; the 2001, 2014, and 2019 Multipurpose Household Survey for Honduras; the 2000 and 2014 National Living Standards Measurement Survey for Guatemala; and the 2001 and 2014 National Living Standards Measurement Survey for Nicaragua. The resident sample includes the population aged 21 to 65. Note: Median hourly wage (PPP 2011 US$) is included in the upper right side of each graph.

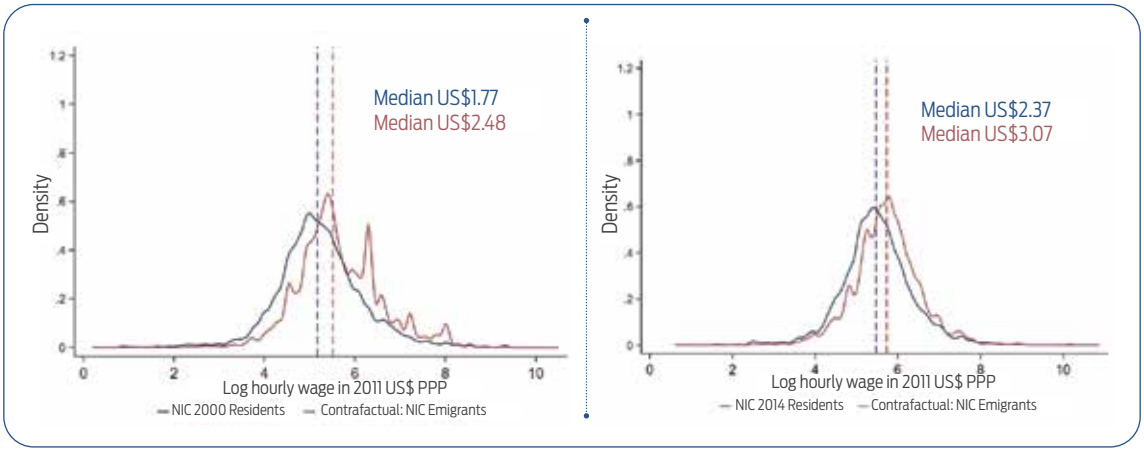
C. AÑO 2019



PANEL 4. NICARAGUA

A. AÑO 2000

B. AÑO 2014



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6.4. BETTER LIVING CONDITIONS

In addition to better labor opportunities, better living standards seem to play a part in attracting migrants from NCA countries into the United States. As mentioned in Section 3, irregular migrants tend to be underrepresented in the ACS survey of the United States. Thus, it is likely that regular migrants provide a more positive outlook of the socio-economic situation of NCA migrants in the United States. While the undercount of unauthorized migrants in recent ACS data has been declining over time, this caveat must be considered when interpreting the following results. Overall, when compared to their counterparts in the countries of origin, migrants from NCA countries living in the United States seem to have better housing conditions. On average, the number of rooms per capita is higher among NCA households in the United States compared to non-migrant households in NCA countries: i.e., almost one room per person for the former States compared to about 0.5 rooms per person in Guatemala, Honduras, and El Salvador.

Similarly, NCA migrants had greater access to education and basic services, such as water and sanitization, compared to residents in NCA countries. The school attendance rate is higher among children and youth (6 to 17 years old) in the U.S. households with migrant members from NCA countries compared to households in sending countries. Indeed, the attendance rate reaches 83, 74, and 79 percent in El Salvador, Honduras, and Guatemala compared to 96, 95, and 92 percent among children in the U.S. households with migrant members from these countries, respectively. In terms of access to clean water, the largest gap is observed between Honduran migrants and residents (21-65 years old), with a difference of 33.7 percentage points. By comparison, the difference for Guatemala and El Salvador amounted to 27.5 and 4 percentage points, respectively (Figure 30). Access to sanitation is also higher among migrants: the largest difference is observed among Hondurans once more, with 40.3 percentage points, followed by Salvadorans with 8 percentage points and Guatemalans with 5 percentage points (Figure 31). In the case of Nicaragua, almost 99 percent migrants living in the United States reported having access to water and sanitation in 2019. While access to these basic services is important in its own right, it also serves as proxy for other key services affecting the formation of human capital, such as education, health, and other amenities that can be found in U.S. cities (such as public libraries, parks, etc.).

An even larger gap exists in connectivity between migrants and residents in NCA countries. Connectivity (understood as access to the internet and digital technologies) is increasingly important for migrant participation in the labor market, access to education and, overall, for economic productivity. The rate of ownership of a computer at home amounts to at least 39 percent for migrants from El Salvador, Guatemala, and Honduras in the United States. In the case of NCA residents, however, the highest ownership rate only reached 20 percent (in Guatemala). The differences are striking in El Salvador and Honduras, where the gap reached 36 percentage points and 29 percentage points, respectively. Regarding internet access, 75 percent of Guatemalan migrants in the United States reported having internet. This same figure was 81 percent among Honduran migrants, increasing to 85 percent among Salvadoran migrants. The gap with NCA residents is large: almost 60 percentage points for Guatemala, 57 percentage points for Honduras, and 53 percentage points for El Salvador (Figure 32 and Figure 33).

FIGURE 30:
ACCESS TO WATER: MIGRANTS AND RESIDENTS AGED 21-65 (CIRCA 2019)

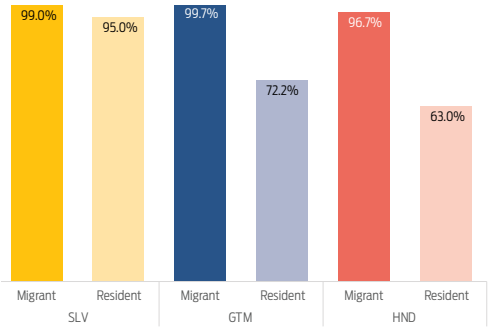
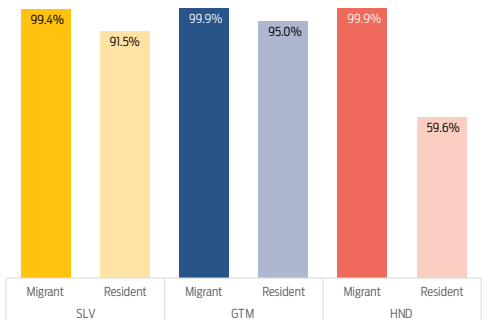


FIGURA 31:
ACCESS TO SANITIZATION: MIGRANTS AND RESIDENTS AGED 21-65 (CIRCA 2019)



Source: Authors' elaboration using a variety of data sources. Information about migrants comes from the 2019 ACS 1-year, while the information about residents comes from the 2020 Multipurpose Household Survey for El Salvador, the 2019 Multipurpose Household Survey for Honduras, and the 2018 Census for Guatemala. The migrant sample includes the 10-year cohort of migrants aged 21-65 from NCA countries who were 18 years or older at the time of their arrival in the United States, while the resident sample includes the population aged 21-65. Nicaragua is not included in the analysis because the 2021 Survey to Evaluate the Impact of Financial and Productive Interventions in Rural Areas of Nicaragua is not representative at the national level, and comparisons with the ACS results are not adequate. Note: Sanitization corresponds to having a bathtub or a shower in the ACS, coupled with the quality of bathroom materials, as reported in household surveys.

FIGURE 32:
OWNERSHIP OF COMPUTER/LAPTOP: MIGRANTS AND RESIDENTS (CIRCA 2019)

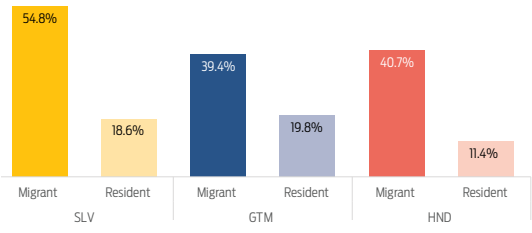
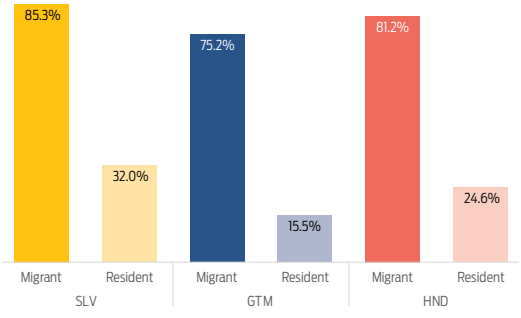
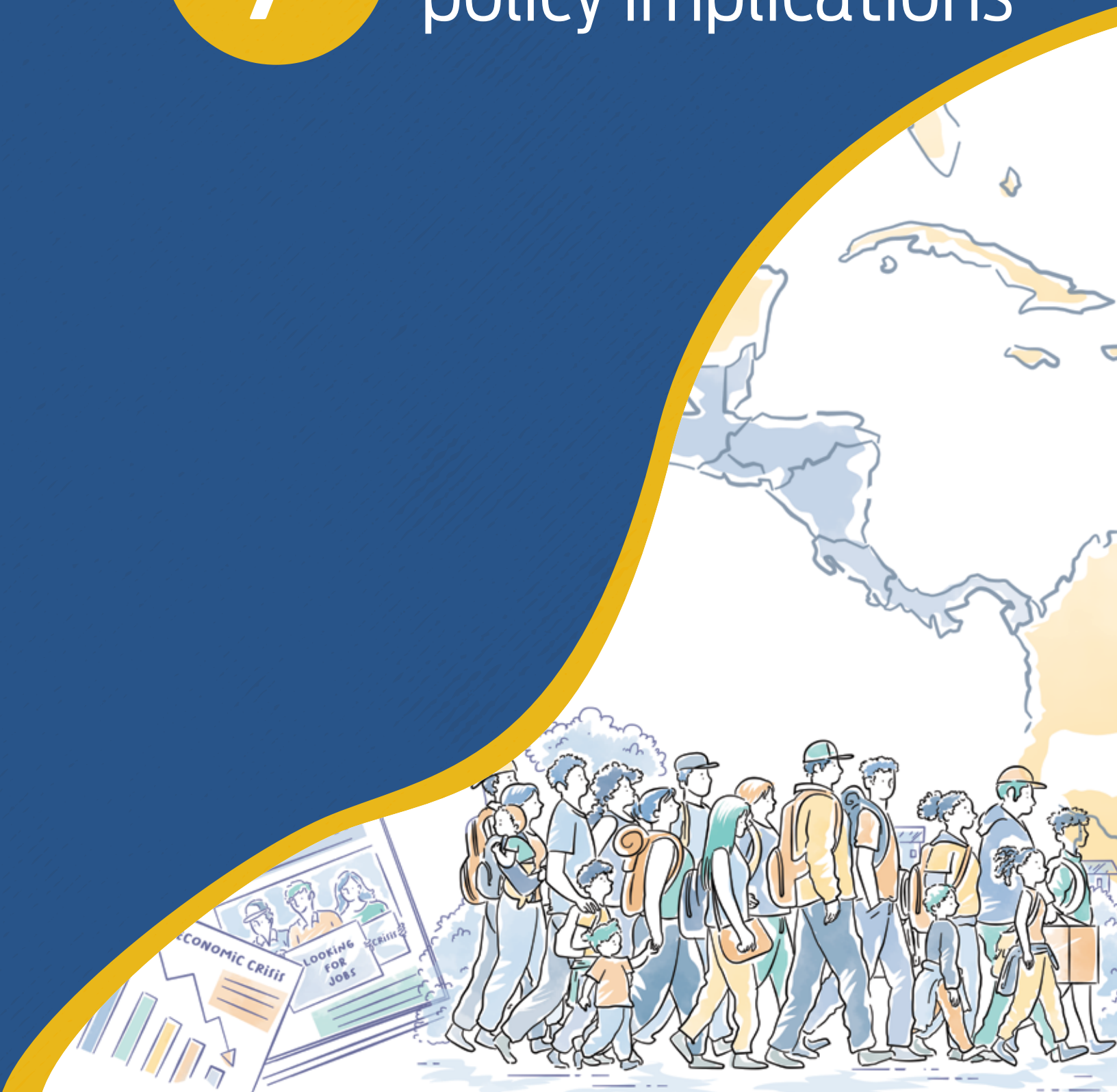


FIGURE 33:
ACCESS TO THE INTERNET: MIGRANTS AND RESIDENTS (CIRCA 2019)



Source: Authors' elaboration using a variety of data sources. Information about migrants comes from the 2019 ACS 1-year, while the information about residents comes from the 2020 Multipurpose Household Survey for El Salvador, the 2019 Multipurpose Household Survey for Honduras, and the 2018 Census for Guatemala. The migrant sample includes the 10-year cohort of migrants aged 21-65 from NCA countries who were 18 years or older at the time of their arrival in the United States, while the resident sample includes the population aged 21-65. Nicaragua is not included in the analysis because the 2021 Survey to Evaluate the Impact of Financial and Productive Interventions in Rural Areas of Nicaragua is not representative at the national level, and comparisons with the ACS results are not adequate.

7 Conclusions and policy implications



This report examines the factors related to the migration phenomenon from North Central American countries (mainly to the United States) in recent times. It provides comprehensive and up-to-date socio-economic profiles of NCA migrant households (in countries of origin). It also characterizes the profile of migrants residing in the United States and how this has changed over the past decade. In addition, it takes a thorough look at factors in NCA countries that propel migrants abroad (*push factors*) and also the main factors that attract NCA migrants to the United States (*pull factors*). The report comes at a critical time as migration from Central America to the United States has intensified in recent years, thus bringing the issue to the forefront of the policy agenda in origin, transit, and destination countries.

Migrants from North Central American are often young, with the potential to play a key role in the economic and social development of their countries of origin and destination. Recent migrants who arrived in the United States between 2017-2019 were in their early-20s. There is also evidence of positive selection. Notably, the average migrant (18 years or over) was more educated than his or her national counterpart. Remarkably, in 2019, an estimated 77 percent of Salvadoran migrants, 55 percent of Guatemalan migrants, and 64 percent of Honduran migrants in the United States had completed secondary education or more (tertiary education). This contrasts with the educational level of residents in their respective countries, where fewer than half achieved a similar level. Propelled by lack of economic opportunities, climatic shocks, and violence in their countries,[64] NCA migrants often choose risky, irregular, and costly forms of migration. The prospect of higher wages in the United States, which were found to be at least three times those that they would have earned in their countries (controlling for differences in purchasing power), offer an attractive escape route. The same is true for living conditions, which are also found to be better in the United States.

These findings underscore the need for policies and programs that aim to maximize the net benefits of migration. The disparities in living conditions and economic opportunities between NCA countries and the United States suggest that migration is not likely to dwindle any time soon. Migration is deeply engrained in the economies and societies of NCA countries as well as those of the United States. Remittances alone account for a large share of the GDP of the NCA countries in this study, amounting to close to a quarter of GDP in Honduras and El Salvador, and around 15 percent of GDP for Guatemala and Nicaragua. Migrants in the United States have high levels of participation in the labor force and represent a crucial engine for the economy. At the same time, there are calls for urgent interventions to reduce the costs associated with migration, particularly with respect to the risky conditions that many migrants face during their journeys.

Improving the living conditions and economic opportunities (particularly high-quality employment) in NCA countries is important to reduce "desperate migration". The relationship between development and migration is complex. If people are pushed to move because of lack of opportunities in their origin country, economic development might lead to better options and hence curb migration. On the other hand, if people are restrained by the cost to migrant, development, through higher incomes, can facilitate migration. The overall impact of development on migration, therefore, depends upon which force dominates (World Bank, forthcoming d). Better opportunities at home, particularly when accompanied by structural transformation (the shift from rural subsistence agriculture

64 Other factors such as migrant networks and family reunification likely play a crucial role but are beyond the scope of this study.

to manufacturing and services in the cities), and the availability of high-quality jobs increase the range of options available for the population. If individuals perceive that they can lead a decent and fulfilling life in their country of origin, they will be less likely to undertake life-threatening journeys. Thus, migration, if it occurs, can take place under better circumstances. Moreover, recent findings suggest that economic development does not need to be pitted against emigration – development programs can simultaneously promote economic development and reduce emigration (Berthiaume et al., 2021).[65]

Mitigating the impact of climate change and reducing violence are also important to the policy agenda. In Honduras and El Salvador, migration is related to landslide and drought events, while in Guatemala it is related to climate risk in general. Improving the resilience of the population to prepare for, and cope with, the adverse effects of climate change is crucial. This is all the truer given that extreme weather events are predicted to worsen in the coming decades. Although the results on the relationship between violence and migration are less conclusive, past studies have found evidence of a positive association. Where there is no doubt is the major role that violence and crime play in the deterioration of the living conditions of the population in NCA countries. Disentangling how such violence relates to migration therefore merits further research. The negative impact of violence on the creation of economic opportunities and on the provision of public services increases the value of such research. The region's status as one of the most violent in the world provides yet another reason for more work in this area.

Efforts should also focus on facilitating regular, safe migration for individuals who still want to migrate. Regular migration programs could contribute to the economic development of countries of origin as well as those of destination. Circular or temporary labor migration programs promote the admission of labor migrants through regular, orderly, and institutionalized processes (See Box 3). These programs are useful in attracting labor from abroad to help local industries facing labor shortages. A deeper understanding of the sectors experiencing labor shortages, complemented with the profile of migrants from this analysis, can help inform the design of such programs. The care industry in the Unites States provides an illustrative case in point. As shown by the U.S. Bureau of Labor Statistics (2022), the care industry is expanding its labor demand due to the country's rapidly aging population. This could represent a window of opportunity for mutual benefit for both the United States and NCA countries. Such programs can also reduce the degree of vulnerability of NCA migrants by facilitating a safe and informed migration experience.

Along these lines, a forthcoming World Bank report analyzes the labor migration sending systems in Guatemala, El Salvador, and Honduras, and some required actions to enhance them. Some recommendations related to strengthening the legal and policy frameworks in these countries include the ratification of pending international agreements on labor migration, as well as the enactment of pending labor migration regulations (World Bank, forthcoming c). In addition, in terms of governance

65 The inverted U-shaped relationship believed to exist between economic development suggests that emigration first increases as countries move from low to middle-income levels of development, and subsequently decreases again as countries grow richer. The authors re-examine this relationship by testing whether an initial increase in economic development led to higher emigration using a subsample of countries (including Honduras and Nicaragua) that transitioned from low-income to middle income status. They find that the inverted-U relationship between development and emigration does not exist for an individual low-income country over time. The inverted U-shaped relationship exists only within a cross-country panel setting and seems to be an artefact of an underlying cross-sectional pattern. Nevertheless, it should be noted that the authors examine transition from low-income to middle income. NCA countries that are the focus of this report are currently considered middle income countries.

and institutional framework, it is necessary to develop the institutional capacity to facilitate the labor migration process and manage temporary work abroad programs, regulate private recruiters, and ensure respect for labor and human rights. Furthermore, the success of the system requires strengthening policy dialogue with the government of destination countries and promoting strategic alliances. Finally, it is necessary to fill the information gaps on the labor market abroad, as well as to improve information systems to monitor and evaluate temporary work abroad programs (World Bank, forthcoming c).

Finally, evidence-based policies aimed to maximize the potential benefits of migration, require the collection of systematic, comprehensive, and harmonized data sources. One of the main challenges identified during the elaboration of this report is that migration data, when available, is characterized by inconsistencies in definitions, with varying degrees of coverage of topics and populations, and significant differences in collection methodologies. In addition, potential data sources, mainly administrative data, is usually not publicly available. As mentioned by the World Bank (forthcoming d), there are several aspects related to the collection of migration data in NCA countries that require attention, including: i) the harmonization of data collection methodologies over time and across countries, including population census, household surveys, and administrative records; ii) the collection of panel data or longitudinal surveys both in origin and destination countries, to better understand the dynamics and impacts of the phenomenon, and iii) making migration data publicly available, which allows the analysis that is required to determine what works best for maximizing the potential benefits of migration.

Box 3. Seasonal Labor Mobility Programs in the Pacific

In New Zealand and Australia, seasonal labor mobility programs allow employers in sectors with labor shortages to recruit seasonal workers from the Pacific. Evidence shows that these programs provide economic and social benefits to Pacific migrants and their families. For example, in Tonga and Vanuatu, households with seasonal workers have higher per capita income and savings, as well as higher school attendance rates for children (World Bank, 2017a). Furthermore, there are multiple benefits for the countries of origin and destination. Indeed, labor mobility can play a key role in mitigating the high level of unemployment in the Pacific, as well as fostering human capital development through knowledge transfer from seasonal migrants to non-migrants. On the other hand, destination countries have economic benefits by filling vacancies that are not attractive to local workers, as well as on the sustainability of public finances. In addition, the flow of workers from the Pacific can contribute to address the challenges of an aging local population (World Bank, 2017a and World Bank, 2017b).

In New Zealand, the Recognised Seasonal Employer (RSE) scheme allows employers in the horticulture and viticulture industries to recruit workers from eligible Pacific countries in case of labor shortages. Workers from Fiji, Nauru, Papua New Guinea, Samoa, Solomon Islands, Tonga, and Vanuatu are allowed to remain in New Zealand for no more than seven months in an 11-month period, while those from Tuvalu and Kiribati can stay up to nine months (1). According to a recent ILO report, there were 6,187 seasonal workers from the Pacific Island countries under the RSE program in 2012/13, while this figure reached 10,239 in 2019/20. In the latter period, one in five seasonal workers were women, a slight increase compared to 15 percent in the 2012/13 period (ILO, 2022).

Similarly, the Pacific Australia Labor Mobility scheme (PALM) allows employers to recruit for short-term workers from Pacific Island Countries and Timor-Leste. This program targets unskilled, low-skilled, and semi-skilled worker vacancies that are difficult to fill due to local labor shortages in rural and regional Australia. Seasonal workers can stay up to 9 months or, in the case of long-term roles between one and four years. The number of seasonal workers is expected to reach 35,000 workers by 2023 (2).

Some recommendations already identified to improve these seasonal worker programs include to offer technical and financial assistance from receiving countries to labor sending units in the country of origin; strengthen the monitoring and transparency of recruitment processes; redesign the current system used to cover migration costs; review and improve employment conditions (e.g., guaranteed minimum payment, rewards for skills and experience, training, and sick leave permission); and expand access to other sectors (e.g., elderly care) (ILO, 2022 and World Bank, 2017b).

(1) https://www.immigration.govt.nz/about-us/research-and-statistics/research-reports/recognised-seasonal-employer-rse-scheme#:~:text=The%20Recognised%20Seasonal%20Employer%20(RSE,not%20enough%20New%20Zealand%20workers
(2) https://www.dfat.gov.au/geo/pacific/engagement/pacific-labour-mobility and https://www.palmscheme.gov.au/

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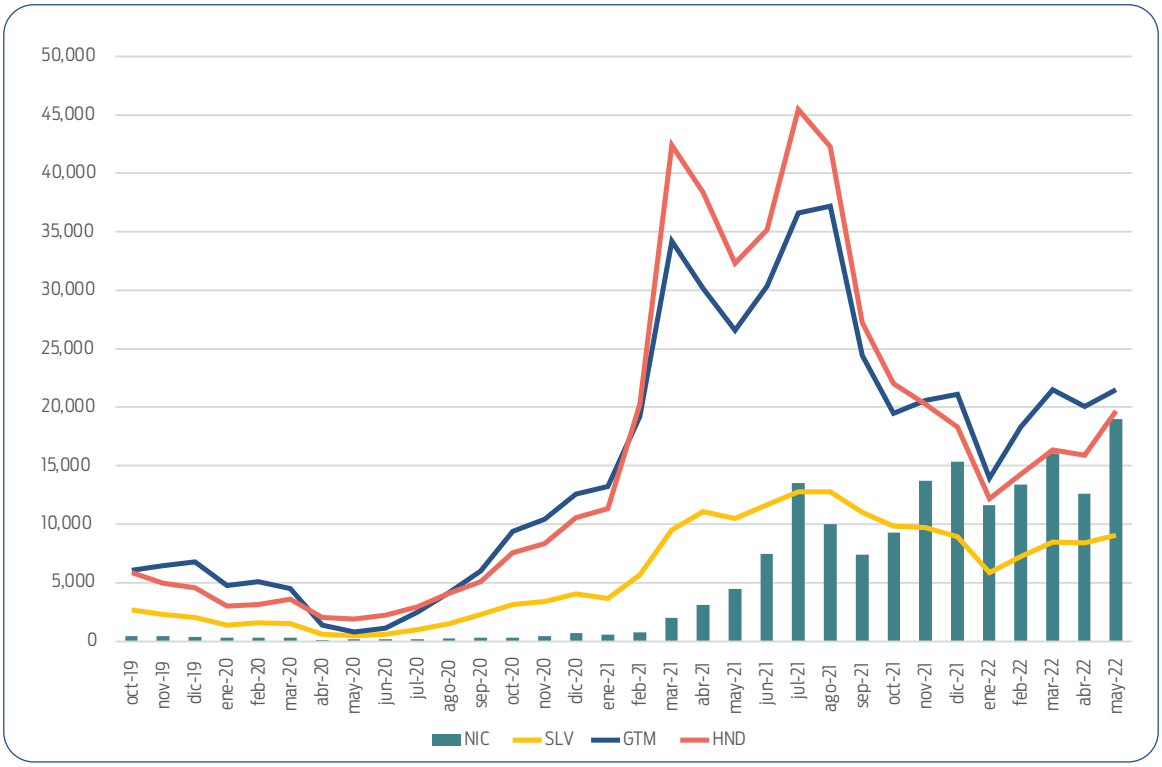
9 Annex

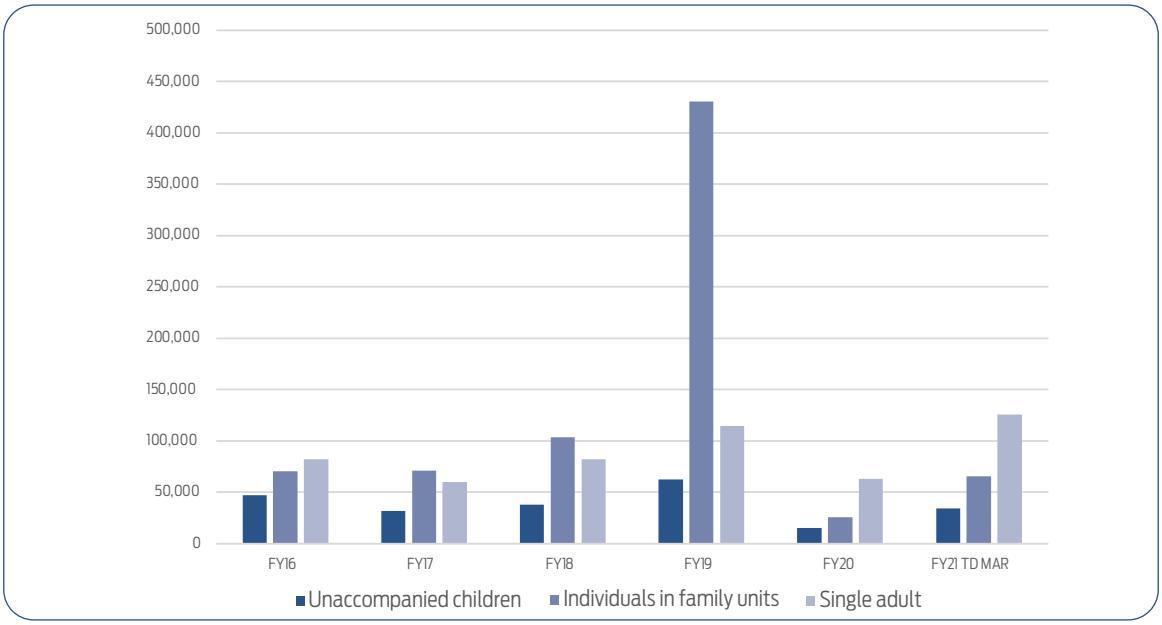
ANNEX A

FIGURE A.1.
APPREHENSIONS OF MIGRANTS FROM CENTRAL AMERICA PRE- AND POST-PANDEMIC



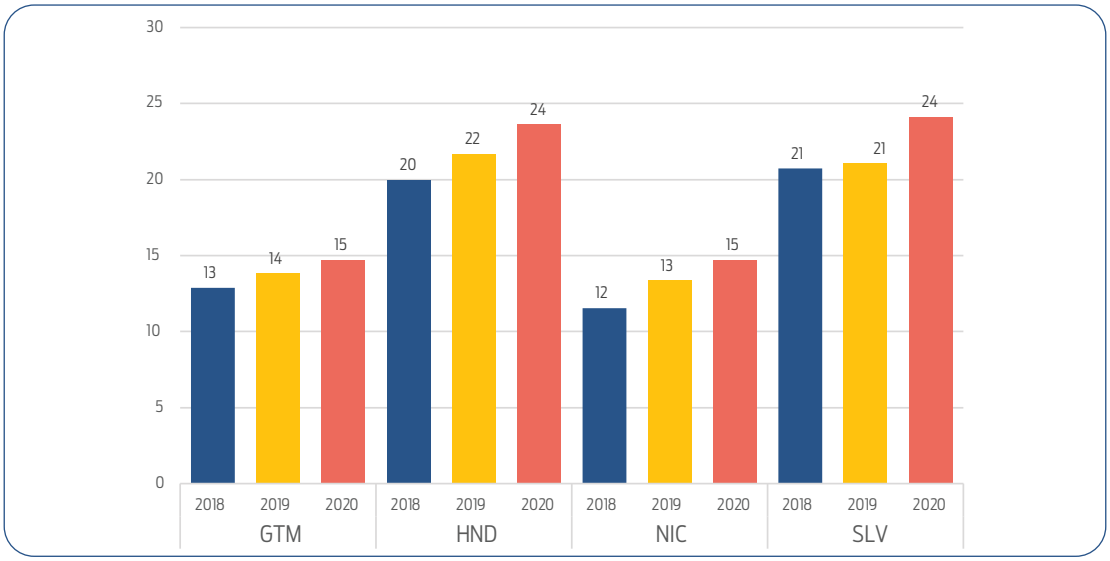
Source: U.S. Customs and Border Protection (Department of Homeland Security), (2022a and 2022b).

FIGURE A.2.
DEMOGRAPHIC COMPOSITION OF ENCOUNTERS (SOUTHWEST BORDER)



Source: U.S. Customs and Border Protection (Department of Homeland Security), (2022).
Note: Data show encounters with individuals from El Salvador, Guatemala, and Honduras at the Southwest Land Border. Data for FY22 is current as of 07/06/2022

FIGURE A.3.
REMITTANCES AS A SHARE (%) OF GDP



Source: Authors' elaboration using the World Development Indicators.

ANNEX B

TABLE B.1.
DESCRIPTION OF HOUSEHOLD SURVEYS

El Salvador 2020 Household Survey	Honduras 2019 Household Survey	Guatemala 2018 Population Census	Nicaragua 2021 Household Survey
In addition to the socio-economic information from the household survey (age, gender, civil status, and others), the survey provides information on labor status, health, education, assets, and specific characteristics of households, as well as exposure to crime and perceptions of safety, among other factors. The survey also contains a migration module consisting of the following information:	The information available in the general modules of the Honduran household survey is similar to those of the Salvadoran survey, with respect to the socio-economic background of the respondents: i.e., gender, age, education, health, work status, and assets. It also includes information on remittances. While the survey does not have a migration-specific module, it contains the following information:	The census collected basic information about individuals and households' socio-economic characteristics, dwelling attributes, education, and household assets, among others, as well as access to basic services (water, sanitation, electricity). Additionally, the questionnaire includes a module on international migration, which provides information on:	This survey contains socio-economic information for each household member (age, gender, civil status, and others) and some general information on labor status, health, education, assets, and household characteristics. The survey also contains a migration module consisting of the following information:
Emigration	Emigration	Emigration	Emigration
· Household migrant status (whether in the past five years a household has had a person who left to live in another country for 12 months or more) · Place of destination (foreign country) · Socio-economic profile of the migrant person (e.g. gender, age, education, occupation) at the moment of departure. · Motivation for migration	· Household migrant status (whether any person in the household in question is currently living abroad)	· Number of international migrants. · Characteristics of the international migrants (age, gender, and year of departure).	· Household migrant status · Place of destination (foreign country or another municipality or department in Nicaragua) · Socio-economic profile of the migrant person (e.g. gender, age, education, occupation) at the moment of departure. · Motivations for migration
Immigration (International returnee)	Immigration (International returnee)		Domestic migration
· Recent country of residence · Lapse of time living abroad · Motivations for return · Timespan between returning and getting a job	· Years that the respondent has lived in the current location and retrospective information on the previous place of residence (country) · Reasons for returning		· Former location · Reasons for relocation · Expectations for relocation (e.g., finding a job, improved living conditions, etc.)

Domestic migration	Domestic migration		Returnees
• Former location • Reasons for relocation • Expectations for relocation (e.g., finding a job, improved living conditions, etc.)	• Years that the respondent has lived in the current location and retrospective information on the previous place of residence (department, municipality, town) • Reasons for returning		• Household returnees' status (Whether in the past 5 years a household has had a person who left to live in another country and returned to the home country) • Country of destination • Reasons for returning

Source: Authors' elaboration

TABLA B. 2: DEFINITION OF VARIABLES

Variables	ACS 1-year	2018 Population Census for Guatemala	2021 Survey to Evaluate the Impact of Financial and Productive Interventions in Rural Areas of Nicaragua for Nicaragua	2020 Household Survey for El Salvador	2019 Household Survey for Honduras
Migrant	Individuals, born in El Salvador, Guatemala, Honduras or Nicaragua, who migrated to the United States	Identification of migrants at the household level	Household members who moved abroad between the first round carried out in 2015 and the round 2 carried out in 2021	Household members who currently live in a foreign country	Household members who currently live in a foreign country
Returnee	Not applicable	Not available	Household members who lived in another country over the last 5 years	Household members from El Salvador who returned to El Salvador in the last 5 years and spend 3 months or more in a foreign country	Household members who usually resided in the house, but are currently abroad
Access to water	0: Without complete plumbing	0: Public water stream; well; rainwater; river or lake;spring; truck	0: Public post; Public water stream; well; rainwater; river or lake;spring; truck; neighbor's water service	0: Public well, river, water stream, rainfall water, neighbor's water service	0: Public well, community faucet, river, tank car, neighbor's connection
	1: With complete plumbing	1: Pipe inside the house or on the ground	1: Pipe inside the house or on the ground	1: Pipe inside the house or inside the property	1: Pipe inside the house or inside the property
Access to electricity	0: No fuel used; fuel oil, kerosene, other liquid fuels; coal or coke; wood; other	0: Gas; Candle; other	0: Car battery; Gas; Candle; other	0: Neighbor's connection, fuels, candles	0: Other, kerosene, wood
	1: Utility gas from underground pipes serving the neighborhood; bottled, tank or LP gas; solar energy, electricity	1: Power system; solar panel	1: Power system; solar panel	1: Grid, solar power	1: Connection to the grid

Access to sanitization	0: None	0: None	0: Latrine with untreated water	0: Shared toilet or latrine, or with disposal to a river or street	0: Shared letrine, cesspit, discharge to river or to the street
	1: Bath or shower (exclusive or shared use)	1: Toilet conected to a sewerage network or spetic tank; washable toilet; latrine or well	1: Latrine with treated water; toilet	1: Own toilet or latrine (not shared)	1: Own toilet or latrine (not shared), no discharge to public space
Access to the Internet	1: Internet with or without subscription	1: Internet service	1. Internet	1. Internet	1. Internet
Computer	1: Laptop, desktop or notebook computer	1: Computer	1. Computer	1. Computer	1. Computer
Education	Never attended: No schooling completed; nursery school, preschool, kindergarten	Never attended: No schooling or preschool	Never attended: No schooling; preschool; adult education; differential education	Never attended: No schooling; preschool; special education	Never attended: No schooling; preschool; adult education
	Primary: Grade 1 to 6	Primary: 1st to 6th Primary education	Primary: Primary	Primary: Primary (1-9)	Primary: Primary
	Secondary: Grade 7 to 12, regular high school diploma, GED or alternative credential	Secondary: 1st to 3rd Basic or 4th to 7th Diversified education	Secondary: Secondary; Basic or medium technical level	Secondary: Secondary (10-13)	Secondary: Common and diversified cycle
	Tertiary: Some college, associate`s degree, bachelor`s degree, master`s degree, professional degree beyond a bachelor`s degree, doctoral degree	Tertiary: Bachelor, Master or Doctorate	Tertiary: Tertiary technical level; Bachelor, Master or Doctorate	Tertiary: Tertiary (college or technical)	Tertiary: Tertiary (college or technical), postgraduate education
Goods included in the asset index	Not applicable	Radio, stove, television, cable service, refrigerator, water tank, clothes washer, computer, internet, hot water, motorcycle, car, hot stone house	Radio, TV, stove, radio, recorder, washing machine, car, motorcycle.	Radio, TV, DVD, Freezer, Washing machine, mixer, fan, computer, clothes' dryer, sewing machine, car or any other vehicle, microwave, electricity generator, conditioning air	Freezer, kitchen, TV, cable TV, radio, landline, car or motorcycle, bicycle, computer, conditioning air

Source: Authors' elaboration

ANNEX C

TABLE C.1.
DESCRIPTIVE STATISTICS OF NON-MIGRANT AND MIGRANT HOUSEHOLDS

	SLV			HND			GTM			NIC		
	Non-Migrant	Mi-grant	Diff b/w Migrant and Non-Migrant	Non-Migrant	Mi-grant	Diff b/w Migrant and Non-Migrant	Non-Migrant	Mi-grant	Diff b/w Migrant and Non-Migrant	Non-Migrant	Mi-grant	Diff b/w Migrant and Non-Migrant
Migrant households (Thousands)	1,590	282		1,796	366		3,108	168		1.5	0.2	
Migrant households (%)	84.9%	15.1%		83.05%	16.95%		94.9%	5.1%		75.7%	12.1%	
Migrants (Thousands)	0	846		0	559		0	242		0	1.8	
Average of migrants	0	1.8		0	1.5		0	1.4		0	1.3	
Migrant Household Profile												
Urban	63.6%	55.7%	-0.0781***	56.4%	59.7%	0.0335***	58.4%	42.4%	-0.161***			
Household size	3.4	3.0	-0.4419***	4.2	3.9	-0.237***	4.6	4.3	-0.288***	4.6	4.1	-0.484***
Dependency ratio	0.5	0.6	0.0944***	0.7	0.7	0.0134	0.7	0.8	0.0779***	0.72	0.79	0.0747
Child dependency ratio	0.4	0.3	-0.0986***	0.6	0.5	-0.0479***	0.6	0.7	0.0536***	0.57	0.63	0.0623
Elderly dependency ratio	0.1	0.3	0.193***	0.1	0.2	0.0613***	0.1	0.1	0.0286***	0.15	0.16	0.0125
Employed (21-65 yrs) members/ Total household members	41.1%	27.7%	-0.134***	36.3%	33.7%	-0.0260***	30.6%	21.6%	-0.0904***	36.0%	31.5%	-0.047*
Welfare indicators												
Poor (national poverty line)	28.2%	14.9%	-0.1329***	65.0%	55.9%	-0.0913***				58.9%	54.2%	-0.0465
Multi-dimensional Poverty status	29.3%	15.2%	-0.1413***	39.0%	30.1%	-0.0880***	20.2%	15.3%	-0.0486***			
Services												
Water access	93.5%	94.3%	0.0084	63.1%	63.4%	0.0365***	73.5%	78.5%	0.0501***	57.8%	65.6%	0.0779*
Sanitation access	88.0%	97.4%	0.0935***	59.3%	62.6%	0.0655***	95.1%	97.0%	0.0184***	45.1%	56.6%	0.115**
Electricity access	97.5%	99.7%	0.022***	92.8%	97.5%	0.0468***	90.9%	96.8%	0.0589***	95.5%	97.6%	0.0211
Standarized Asset index	-0.03	0.31	0.3423***	-0.01	0.33	0.3396***	-0.01	0.21	0.219***	-0.02	0.13	0.150*
Dwelling characteristics												
Received remittances in the past year	13.5%	84.3%	0.7081***	12.6%	63.2%	0.5062***	5.1%	70.9%	0.658***	3.3%	8.0%	0.0472***
Head of Household characteristics												
Age	49.1	59,5	10.4579***	49.2	54.2	5.0306***	45.9	48.8	2.901***	50.8	52.3	1.516
Female head	35.3%	49.6%	0.143***	31.9%	47.2%	0.1532***	23.0%	49.9%	0.269***	28.2%	49.5%	0.213***
Years of education (Population 18+)	7.12	5.29	-1.833***	5.99	5.94	-0,05	5.6	4.0	-1.550***			
Head is employed (Population 21-65 yrs old)	72.7%	44.2%	-0.286***	72.7%	58.0%	-0.147***	78.8%	49.7%	-0.291***	84.8%	69.1%	-0.158***

Source: Authors' elaboration using the 2020 Multipurpose Household Survey for El Salvador, the 2019 Multipurpose Household Survey for Honduras, the 2018 Census for Guatemala, and the 2021 Survey to Evaluate the Impact of Financial and Productive Interventions in Rural Areas of Nicaragua for Nicaragua. Note: The national poverty rate for Nicaragua is calculated using the total household consumption.

TABLE C. 2:
DESCRIPTIVE STATISTICS OF MIGRANTS AND TOTAL POPULATION (EXCLUDING MIGRANTS)

	SLV			GTM			NIC		
	Migrants	Total Population	Diff b/w Migrant and Total Population	Migrants	Total Population	Diff b/w Migrant and Total Population	Migrants	Total Population	Diff b/w Migrant and Total Population
Total	104,160			242,203	14,857,534		269	7,970	
Age at departure	26.7			25.8					
Female	45.8%	52.9%	-0.0706**	22.5%	51.6%	-0.291***	36.4%	49.8%	-0.134***
Year of departure	-								
Before 2015				54.7%			1.5%		
2015	19%			9%			1.1%		
2016	20%			11%			5.6%		
2017	19%			10%			3.7%		
2018	22%			10%			12.3%		
2019	15%						16.0%		
2020	6%						8.6%		
2021							37.6%		
Missing	-			5.1%			13.8%		
Destination country									
Costa Rica	0.1%						63.9%		
Guatemala	2.2%						0.4%		
Honduras	0.2%								
Mexico	5.7%						0.7%		
Nicaragua	-						2.2%		
Panamá	0.2%						2.2%		
Espana	-						5.6%		
Reino Unidos	-						0.7%		
Estados Unidos	83.3%						21.2%		
Canada	0.3%								
Missing	-						3.0%		
Other	8.0%								
Education level at departure (Population 18+)									
None	1.5%	2.2%	-0.7%						
Primary	87.1%	55.3%	0.3177**						
Secondary	8.8%	29.8%	-0.2100*						
Tertiary	2.6%	12.6%	-0.1005*						
Employed at departure	54.0%								

Primary reason for migration									
Economic reasons	57.0%								
Family reasons	20.1%								
Violence/conflict	19.0%								
Study	3.9%								
Other	0.1%								

Source: Authors' elaboration using the 2020 Multipurpose Household Survey for El Salvador, the 2018 Census for Guatemala, and the 2021 Survey to Evaluate the Impact of Financial and Productive Interventions in Rural Areas of Nicaragua for Nicaragua. No information available for Honduras.

TABLE C. 3.
PROFILE OF RETURNEES

	HND			NIC		
	Returnees	Total Population	Diff b/w Migrant and Total Population	Returnees	Total Population	Diff b/w Migrant and Total Population
Female	0.3%	52%	-0.516***	33.5%	50.4%	-0.169***
Highest level of education (18+)						
None				11.1%	22.7%	-0.117***
Primary				43.8%	42.9%	0.00867
Secundary				39.2%	25.3%	0.139***
Tertiary				6.0%	9.0%	-0.0304
Currently employed (21-65 yrs old)				80.0%	68.8%	0.112***
Currently self-employed (21-65 yrs old)				46.2%	46.8%	-0.00512
Current sector of employment (21-65 yrs old)						
Agriculture				54.2%	45.6%	0.0864*
Industry				12.7%	9.4%	0.0324
Trade				16.2%	26.2%	-0.100**
Services				16.9%	18.8%	-0.0186
Hourly wage (PPP 2011) (21-65 yrs old)				2.1	4.1	-2.022

Source: Authors' elaboration using the 2020 Multipurpose Household Survey for El Salvador, the 2019 Multipurpose Household Survey for Honduras, and the 2021 Survey to Evaluate the Impact of Financial and Productive Interventions in Rural Areas of Nicaragua for Nicaragua. Information on returnees in Guatemala is not available.

TABLE C. 4.
PROFILE OF HOUSEHOLDS WITH RETURNEES

Variables	HND	NIC
Households with returnees		
Number of households	3,403	183
% Households	6.2%	10.4%
Returnee Profile		
Number of returnees	5,909	245
Returnees per household	1.0	1.3
Female	0.3%	33.5%
No. of years spent abroad	13.6	
Age at return	29.3	
Coming from...		
Estados Unidos	47.4%	2.0%
España	3.3%	1.2%
El Salvador	11.6%	
Mexico	7.6%	0.4%
Nicaragua	10.1%	0.4%
Guatemala	10.7%	1.2%
Costa Rica		32.7%
Liberia		0.4%
Panamá		1.2%
Missing		60.4%
Other	9.4%	
Time since he/she returned	14.31	
Reasons for return		
Economic reasons	22.1%	
Family reasons	70.0%	
Violence or conflict	1.3%	
Study	3.9%	
Others	2.6%	

Source: Authors' elaboration using the 2020 Multipurpose Household Survey for El Salvador, the 2019 Multipurpose Household Survey for Honduras, and the 2021 Survey to Evaluate the Impact of Financial and Productive Interventions in Rural Areas of Nicaragua for Nicaragua. Information on returnees in Guatemala is not available.

ANNEX D

TABLE D. 1.
DESCRIPTION OF VARIABLES FOR EMPIRICAL EXERCISE OF PUSH FACTORS

Model Component	Variable	Description
Dependent variable	Migrating member	Takes the value == 1 if there is currently a migrant member, == 0 otherwise
Economic opportunities	Asset index	Asset index, takes a maximum value == 1
Living standards	Municipal Poverty	Poverty headcount by municipality
Natural Hazards	Landslides	Number of landslides
	Event Index	Composite index (0-10) summarizing risk and exposure, vulnerability and lack of coping capacity. 0 represents no risk, while 10 is maximum risk.
Violence	Homicide rate	Accumulated number of homicides (2014-2018), as a proportion of municipal population
	Protests	Number of protests at the department level (2021)
Controls	HH Head years of education	Years of education of the HH head
	HH Size	Number of HH members
	Head is female	Dummy == 1 if HH head is female, == 0 otherwise
	Head is employed	Dummy == 1 if HH head is employed, == 0 otherwise
	Urban HH	Dummy == 1 if HH is in the urban area, == 0 otherwise
	Head's age	Age of the HH head
	Head is in the formal sector	Dummy == 1 if HH is in the formal sector, == 0 otherwise
	Log(remittances)	Logarithm of remittances

Source: Authors' elaboration

TABLE D. 2.
DESCRIPTIVE STATISTICS OF THE VARIABLES THAT REPRESENT THE PUSH FACTORS

	Variable	SLV		GTM		HND		NIC	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD
Dependent variable	Migranting member	13.39%	0.34	4.81%	0.214	16.17%	0.368	13.87%	0.346
Economic opportunities	Asset index	0.462	0.220	-0.040	0.957	0.317	0.190	0.173	0.151
Living standard	Municipal poverty rate	0.209	0.077	0.048	0.032	0.530	0.138	0.629	0.483
Natural hazards	Landslides	4.353	1.394			6.710	2.416		
	Event index			5.660	2.752				
	Precipitation's magnitude							97.374	21.952
Crime and violence	Homicide rate	0.009	0.003	0.011	0.010	0.017	0.030		
	Protests							34.663	18.952
Controls	HH Head years of education	6.848	5.073	4.986	4.780	5.983	4.624	3.886	4.088
	HH size	4.187	1.770	5.743	2.715	5.115	2.253	5.184	2.231
	Head is female	53.25%	0.499	51.54%	0.499	51.95%	0.499	50.16%	0.5
	Head is employed	72.90%	0.445	73.88%	0.439	77.13%	0.42	78.67%	0.409
	Urban HH	61.66%	0.486	53.72%	0.498	55.38%	0.497		
	Head's age	49.6	15.8	46.0	14.6	49.7	15.5	51.6	14.2
	Head is formal	46.78%	0.499			22.20%	0.415		
	Log (remittances)	4.780	1.088			8.842	1.083		
	n	2,169		11,483,828		2,686		1,417	

Source: Authors' elaboration

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