

UNIVERSITY OF SAO PAULO
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**MIGRATION AND HUMAN DEVELOPMENT IN LATIN AMERICA:
THE LONGITUDINAL EFFECT OF LOW-SKILLED AND HIGH-SKILLED
EMIGRATION IN THE SENDING COUNTRIES**

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Corrected Version

Thesis submitted to the Post-Graduate Program in International Relations of the University of Sao Paulo in partial fulfilment of the requirements for the award of PhD in International Relations

Advisor: Prof. PhD. Cristiane de Andrade Lucena Carneiro

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To my family, for their unconditional support

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"The powerful and the happy never go into exile".

-- Alexis de Tocqueville. Democracy in America, 1835.

ABSTRACT

This research aims to study the dynamic effect of emigration on the human development of the sending countries. For this, emigration is measured through low-skilled and high-skilled emigrants, as well as remittances. Additionally, human development is understood as having a decent standard of life, long healthy life, and education. This research is not concerned with why migrants choose to move. Instead, the concern here is to assess what happens to the human development of the sending countries when migrants exit their home countries.

This work is based on the New Economics of Migration theory and uses Latin America as the sample of sending countries. The data are analyzed through Feasible Generalized Least Squares, Panel Corrected Standard Errors, and GMM-IV. The period covered in this research goes from 1970 to 2015. 5-year-averages are employed in order to calculate the long-run effect of emigration on human development. From the results obtained through the statistical analysis, it can be said that the impacts of emigration on human development are heterogeneous, and that depend on the type of emigration (high-skilled or low-skilled) and on time (short-run or long-run).

The findings suggest that there are important short-term benefits of emigration on the access to a decent living standard and to education. However, there are also some worrying negative short-term effects, mostly on a long healthy life. Nevertheless, most of these negative short-run effects revert in the long-run and become more positive. Furthermore, the results show that high-skilled emigration has more positive effects on living standards and on a long healthy life than the low-skilled emigration. On the other hand, in the case of education, it seems like low-skilled emigration has more positive long-run effects when compared to the high-skilled one.

Keywords: Migration, Low-skilled emigrants, High-skilled emigrants, Human Development, Latin America, Sending Countries.

RESUMO

Esta pesquisa visa estudar o efeito dinâmico da emigração no desenvolvimento humano dos países de origem. Para isto, a emigração é mensurada através de emigrantes pouco qualificados e altamente qualificados, bem como remessas. Além disso, o desenvolvimento humano é analisado através de um nível de vida decente, vida longa e saudável, e educação. Esta pesquisa não estuda o porquê os migrantes escolhem se mudar. Em vez disso, a preocupação aqui é analisar o que acontece com o desenvolvimento humano dos países de origem quando os migrantes saem dos seus países de origem.

Este trabalho baseia-se na teoria da Nova Economia da Migração e usa a América Latina como a amostra dos países de origem. Os dados são analisados através de Feasible Generalized Least Squares, Panel Corrected Standard Errors, and GMM-IV. O período abrangido por esta pesquisa é desde 1970 até 2015. São empregadas médias de 5 anos para calcular o efeito de longo prazo da emigração no desenvolvimento humano. A partir dos resultados obtidos através da análise estatística, pode-se dizer que os impactos da emigração no desenvolvimento humano são heterogêneos e que dependem do tipo de emigração (altamente qualificados ou pouco qualificados) e do tempo (curto ou longo prazo).

Os resultados desta pesquisa mostram que sugerem que há benefícios importantes no curto prazo no acesso a um nível de vida decente e na educação. No entanto, também há alguns efeitos negativos preocupantes, principalmente em uma vida longa e saudável. No entanto, a maioria desses efeitos negativos no curto prazo se revertem no longo prazo e tornam-se mais positivos. Além disso, os resultados mostram que a emigração altamente qualificada tem efeitos mais positivos sobre o nível de vida e sobre uma vida longa e saudável do que a emigração pouco qualificada. Por outro lado, no caso da educação, a emigração pouco qualificada tem efeitos mais positivos no longo prazo quando comparada com a emigração altamente qualificada.

Palavras Chave: Migração, Migrantes Pouco Qualificados, Migrantes Altamente Qualificados, Desenvolvimento Humano, América Latina, Países de origem.

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LIST OF ABBREVIATIONS

CDP	Committee for Development Policy
ECOSOC	United Nations Economic and Social Council
FAD	Food Availability Decline
FDI	Foreign Direct Investment
GDPpc	Gross Domestic Product Per Capita
GNI	Gross National Income
GNP	Gross National Product
HDI	Human Development Index
HDR	Human Development Report
HIS	Human Suffering Index
IDA	International Development Association
IFC	International Finance Association
ILO	International Labor Organization
IMF	International Monetary Fund
MEPV	Major Events of Political Violence
NELM	New Economics of Labor Migration
NEM	New Economics of Migration
NSRT	North South Round Table
ODC	Overseas Development Council
PCSE	Panel Corrected Standard Errors
PQLI	Physical Quality of Life Index
SID	Society for International Development
TSCS	Time Series Cross Section
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Program

UNRISD

United Nations Research Institute for Social Development

US

United States

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1. INTRODUCTION

“When the poorest migrate, they often do so under conditions of vulnerability that reflect their limited resources and choices” (UNDP, 2009).

This research is about the relationship between international migration from Latin America to the United States and its effect on the human development in the sending countries. As such, it goes beyond evaluating the relationship between emigration and economic prosperity in the sending countries. It also considers the effects on non-economic outcomes that entail important capabilities in the areas of education and health. In this sense, aspects of objective well-being that expand people’s capabilities are analyzed. This research does not see migrants as victims or criminals, which is very common in several studies. Instead, this research sees migrants are agents who are very active in society. By adopting the capabilities approach to human development, this research is considering migrants as human beings who are able to improve their own capabilities and the capabilities of non-migrants in the sending countries through a variety of causal mechanisms. For this, I rely on an extensive review of the existent literature on human development and migration, complemented by the analysis of macroeconomic data from a variety of national sources. Additionally, micro level survey data from the Latin American Public Opinion Project¹ is also analyzed in order to have another perspective of the issues studied here, strengthening the hypotheses posed and complementing macro level data with micro level data.

The research is delimited to the Latin American immigrants in the United States, which are one of the largest groups of immigrants in that country. By 2013 immigrants represented the 13 per cent of the United States’ population and immigrants from Latin

¹ Latin American Public Opinion Project is an academic institution that carries out surveys of public opinion in the American continent. The survey is called the Americas Barometer and it is hosted by Vanderbilt University with rounds of surveys since 2004 (LAPOP, 2017). Available at <http://www.vanderbilt.edu/lapop/about.php> Last visited August 7, 2017.

America represented about 46 percent of the total immigrant population, according to the Migration Policy Institute². The United States has reinforced its immigration laws and physical borders, especially the border with Mexico, in order to decrease irregular immigration. These measures were strengthened with the Trump administration, aiming at irregular immigrants who were already inside the United States. Nevertheless, in spite of all the efforts, migration to the United States has proven to be very difficult to stop. The reasons: unemployment, insecurity, poverty, political prosecution and income inequality in the sending countries, just to mention the principal “push” factors in the sending countries. In addition, “pull” factors in the United States, such as better economic opportunities and a less dangerous environment, make the country very attractive for immigrants who seek to survive, build a better life and support their families.

Data shows that there are big differences in human development across and within countries in Latin America, and migration has been found to be a powerful tool through which many people can expand their choices and capabilities (UNDP, 2009). I adopt Amartya Sen’s approach to human development that considers human development as a process of enlarging the choices that people have reason to value. (UNDP, 1990). In this sense, I believe that people have good reason to value their choice to migrate and that this helps enlarging the choices of the non-migrant families back home.

In general, the barriers to migration are greater for low-skilled migrants than for the high-skilled ones, in spite of the high demand for both types of immigrants in the United States. This stimulates the irregular migration of the low-skilled ones, putting in danger their human rights and weakening their capabilities. However, there are several benefits from both low and high-skilled migrants. These benefits must be analyzed from a more human-centered approach beyond pure economics, and Amartya Sen’s capabilities approach can provide this view. In this sense, the author of this study raises

² Migration Policy Institute, 2015. Available at <http://www.migrationpolicy.org/article/frequently-requested-statistics-immigrants-and-immigration-united-states-0> Last visited May 28, 2017.

the case for a more flexible movement of people in order to help expand human choices and freedoms for the least fortunate people, given that many governments fail to do so.

Hence, the importance of this research in the Latin American region stems not only from its economic, political and social outcomes. It is important for policy makers to know how emigration impacts the sending countries after losing their people at the national, regional and international scale. Additionally, it is important to know how low-skilled emigration differentiates from high-skilled emigration in terms of its effects on the sending countries.

The literature that studies the relationship between human development and migration is full of breaches. In the first place, there is no consensus with respect to what human development really means, and this makes any explanation of the impact of migration rather weak. In the second place, most authors measure migration through remittances, which is certainly the easiest way to do it. However, the human element (the migrants themselves) is left out of the analysis. In the third place, there is a wide interest on studying high-skilled emigration, leaving out of the analysis an even bigger part of the phenomenon, which is the low-skilled emigration. Given these important gaps in the literature, this study contributes to the existing literature on migration and human development by better analyzing the concept of human development, by taking the human element as the main focus, and analyzing how this human element of migration affects the human development in the sending countries in Latin America. In other words, this work is making a relevant contribution because it is concerned with how migrants themselves affect the human development of their countries back home, shifting from the common perspective of remittances to a human based perspective, and from the destination country to the sending country perspective. Additionally, this study investigates whether high-skilled emigration hurts or benefits the sending countries in the same way as low-skilled emigration does.

Furthermore, it is asked why should we study the impact of emigration on the sending countries (the country where migrants come from). As FIGUEROA (2016) discusses, most of the studies regarding this issue have focused on the receiving country,

which is the country where migrants migrate to (BORJAS et al., 1997; BORJAS, 2003a, 2003b; HUNTINGTON, 2004). However, only recently, the literature has begun to study the sending countries, focusing on individual migrants, households, or on the migrant sending cities (HANSON, 2008; APARICIO; MESEGUER, 2012; MESEGUER; BURGESS, 2014; ESCRIBÀ-FOLCH; MESEGUER; WRIGHT, 2015). It is understandable that researchers are interested in how the migrants contribute to their household and cities, because this would be more easily observable in countries where a low percentage of the population migrates and where migrants families tend to come from specific places. But how about those countries where the third part of their population has emigrated and continues to do so, as it is the case of El Salvador and other neighbor countries? And how about those countries where migrant families are more dispersed and do not come from some specific cities? It is worth to sum up all these individual contributions and map how they affect the country as a whole and fill this gap in the literature.

Migrating makes sense when the possibility of having a long and healthy life, being well educated and having access to a decent standard of living is higher in another country. Having a high human development, alas, is determined by the country people are born in. That is, the human development that a person born in Haiti has will not be the same as the one of a person born in Uruguay. Therefore, it makes sense for this Haitian person to feel the need to expand their capabilities and freedoms, and if they know where to get them, they are very likely to migrate in order to achieve more. For people who migrate, as well as for the family back home, the possibility of having better opportunities increases. Their kids are more likely to be better educated, to have a better access to a proper health care, and to have a decent standard of life.

A study by the World Bank found that for the poorest people, migrating is both a necessity and an opportunity, as expressed by themselves when interviewed. A necessity because it helps survive deprivations, and an opportunity because it represents a means through which they can expand their choices and capabilities (PATEL; WORLD BANK, 2000). By understanding human development as the process of expanding people's freedoms and capabilities, we must begin by acknowledging the fact that

mobility is a human right. The Universal Declaration of Human Rights in its Art. 13 recognizes this fundamental freedom of mobility (UNITED NATIONS, 1948). If human beings have always migrated for better chances to survive and improve their lives, could these effects be greater would the restrictions on migration diminish? Millions of people use their freedom of movement in order to help their families and communities back home. It is the purpose of this research to measure the macro and micro effects of emigration on the human development of the sending countries.

This work is based on the New Economics of Migration theory (NEM), which holds that households are part of larger groups, like communities and countries. Because of this, households related to migrants transmit the impacts of migration to other members of those groups, and even households that are not related to migrants are affected by migration when they interact with migrant related households. Therefore, it is very likely that the impacts of migration can be found even outside of the households that send migrants and receive the remittances directly, extending to the whole country (STARK; BLOOM, 1985; TAYLOR, 1999).

Migrants abroad, or diasporas, transfer financial remittances back to their countries of origin. They also transfer social and political remittances, which are seen through values, ideas and knowledge that they acquire in the receiving country (LEVITT, 1998; LEVITT; LAMBA-NIEVES, 2011). All these remittances are used for various purposes back home, increasing not only the opportunity to access a better education, alleviation of poverty and development, but they are also able to influence elections and politics (MESEGUER; BURGESS, 2014), showing the importance and the influence of diasporas on the sending countries. This is why we need to study the effects of migration not only in the sending households, but also in the sending countries as a whole. This research does not assess irregular migrants and refugees.

For this, Latin America was chosen as the sample due to its variation in migration matters. Having variation is helpful when choosing a sample with the purpose of analyzing it statistically, and it is explained as follows. Central American countries, for example, share a similar history with respect to emigration to the United States, while South American countries have less probability of migrating towards that country. The

region possesses the three most violent countries in the world: Guatemala, Honduras and El Salvador, also known as the Northern Triangle. These countries, along with Mexico, are at the same time the ones that more migrants send to the United States, and consequently, the ones that receive more remittances in the region. However, when comparing the amount of remittances as a share of their GDP, El Salvador, Guatemala, Guyana, Haiti, Honduras, and Nicaragua are the countries that receive more remittances in the region. On the other hand, the Latin American region also includes countries with lower levels of migration and less remittances, giving us the opportunity to observe some variation in the cases. Among the countries that less receive remittances are Argentina, Chile, Colombia, Costa Rica, and Panama. Table 1 has the purpose of showing the countries selected as the sample and the variation amongst them.

Table 1 - Latin America, comparative table as to 2015

<i>Country</i>	<i>Population</i>	<i>Territory</i>	<i>GDP per capita</i>	<i>Remittances (GDP%)</i>	<i>Persons in the U.S.</i>	<i>HDI</i>
<i>Argentina</i>	43,416,755	2 780 400	\$13,431.88	0.08	176,884	0.827
<i>Bolivia</i>	10,724,705	1,098,581	\$3,076.79	3.66	87,616	0.674
<i>Brazil</i>	207,847,528	8,515,767	\$8,538.59	0.16	779,707	0.754
<i>Chile</i>	17,948,141	756,096	\$13,416.23	0.05	110,542	0.847
<i>Colombia</i>	48,228,704	1,141,748	\$6,056.15	1.60	947,227	0.727
<i>Costa Rica</i>	4,807,850	51,100	\$11,260.09	1.02	124,225	0.776
<i>Cuba*</i>	11,389,562	109,884	\$6,789.85	4.09	1,061,319	0.775
<i>Dominican R.</i>	10,528,391	48,442	\$6,468.47	7.62	939,118	0.722
<i>Ecuador</i>	16,144,363	283,560	\$6,205.06	2.39	652,083	0.739
<i>El Salvador</i>	6,126,583	21,041	\$4,219.35	16.57	1,035,484	0.686
<i>Guatemala</i>	16,342,897	108,889	\$4,127.35	10.30	856,252	0.641
<i>Guyana</i>	767,085	214,970	\$3,903.48	9.27	303,622	0.638
<i>Haiti</i>	10,711,067	27,750	\$818.34	25.04	747,435	0.493
<i>Honduras</i>	8,075,060	112,492	\$2,528.89	17.95	785,537	0.606
<i>Mexico</i>	127,017,224	1,972,550	\$9,005.02	2.28	16,130,076	0.762
<i>Nicaragua</i>	6,082,032	130,375	\$2,086.90	9.43	296,587	0.631
<i>Panama</i>	3,929,141	74,177	\$13,268.11	1.07	114,291	0.781
<i>Paraguay</i>	6,639,123	406,752	\$4,080.95	2.04	16,612	0.693
<i>Peru</i>	31,376,670	1,285,216	\$6,027.13	1.44	478,264	0.741
<i>Uruguay</i>	3,431,555	176,215	\$15,573.90	0.21	28,462	0.795
<i>Venezuela*</i>	31,108,083	916,445	\$12,265.03	0.02	270,582	0.767

Source: World Development Indicators, UNDP HDI, Leblang et al (2014). *For Cuba and Venezuela, the last GDP available and presented here is that of 2013.

1.1. Research questions

This research is driven by the interest of investigating how does the human development of the sending countries vary after thousands of people leave every year. The most common product of migration, remittances, is not the focus here. Instead, the focus are the migrants themselves, high-skilled and low-skilled, and how they can affect the sending countries after exercising their right to exit. This is a shift from the common perspective where the effect of migration is studied through remittances and is one of the main contributions of this research.

Another contribution of this research is to investigate if high-skilled emigration affects the sending countries in the same way as low-skilled emigration. If not, how do the sending countries react to these two different types of citizens leaving? In this sense, I make an exploration into the three areas of human development in order to find out how low-skilled and high-skilled emigration affects each area. That is, it is studied how low-skilled and high-skilled emigration impact the expansion of the capability to access a healthy life, education and to a decent standard of life on the sending countries in the short-run (within their first year in the receiving country) and long-run (after five years).

This research is structured as follows. Chapter 2 assesses the basic delimitation of concepts related to migration and human development used along this research. Chapter 3 presents a debate of the conception of the term “human development” up to the most accepted meaning nowadays. Chapter 4 outlines a theoretical review of migration and development, as well as a theoretical exploration of the relationship between migration and human development in the sending countries. Chapter 5 delineates the hypotheses posed in this thesis as well as the causal mechanisms for each one of them. Chapter 6 outlines the methodological strategy used in order to analyze the data followed by a presentation of descriptive statistics of both micro and macro level data in Chapter 7. The results are discussed in chapter 8. Chapter 9 concludes.

2. MIGRATION DEFINITIONS AND CONTEXTUALIZATION

“They will never be the same again because you just cannot be the same once you leave behind who and what you are, you just cannot be the same.”

NoViolet Bulawayo

2.1. Migration, migrants, sending and receiving countries

According to the International Organization for Migration, migration is the movement of people out of a state or within that state. This definition includes refugees, displaced persons, economic migrants, and people moving for other purposes (“Key Migration Terms”, 2015). On the other hand, the UNDP defines a migrants as “an individual who has changed his/her place of residence either by crossing an international border or by moving within his/her country of origin” (UNDP, 2009; p.15).

According to the Migration Policy Institute, the term adopted to define “immigrants” in the United States is “the people residing in the United States who were not citizens at birth. This population includes naturalized citizens, lawful permanent residents, certain legal nonimmigrants (persons on student or work visas), those admitted under refugee or asylee status, and persons illegally residing in the United States.”³ This study focuses its attention on international migration, and it understands the term from the conventional time and space point of view. That is, migration is considered as the process of a person leaving one country and crossing an international boarder in order to settle in another one, at least for a year (BRETTELL; HOLLIFIELD, 2008). Usually, under this definition, those persons who travel regularly for less than a year, for purposes of tourism or business are not considered migrants.

This research uses the data from the Yearbook of Immigration Statistics of the Department of Homeland Security of the United States, and therefore, it adopts this institution’s concept of an immigrant. In fact, the Yearbooks of Immigration Statistics begin providing definitions in such reports since 1981, where they define immigrants as “those

³ Migration Policy Institute, 2014 <http://www.migrationpolicy.org/programs/data-hub/charts/immigrants-countries-birth-over-time>

persons lawfully accorded the privilege of residing in the United States”⁴ (INS, 1981; p.140).

It is not easy to classify migrants because there are many reasons for them to migrate. However, Koser (2007) attempts to classify migrants into three categories. The first one comprises those who can be distinguished between voluntary or forced migrants (usually refugees). The second one includes those who can be differentiated according to their motives, such as political reasons (usually refugees) or economic reasons (low skilled and high skilled migrants). Lastly, the third one groups those who are differentiated between regular and irregular migrants. It is argued that the term “illegal” is not adequate as it implies a status of criminality, and it is discouraged in the 1975 resolution of the United Nations General Assembly⁵. Instead, Koser argues that the term “irregular” should be used, as it covers those people who enter a country without documents or with fake documents, as well as those who enter legally and stay in the country after their visa expires (KOSER, 2007).

As Koser (2007) points out, it is worth to say that these categorizations might intersect sometimes, for example, some voluntary migrants can also be economic migrants, and some economic migrants can be regular or irregular migrants. There could also be some conceptual issues in this characterization. For instance, to talk about voluntary or forced migration we must first define what “voluntary” and “forced” really means, as we could say that even though a person is politically persecuted he/she decides in the end whether to move or not, so it ends up being voluntary. On the other hand, we could mention cases where companies require their employees to move to another country, it could end up being forced migration if their jobs depend on having to move to another place.

⁴ INS stands for Immigration and Naturalization Service, and it was the agency in charge of Immigration as part of the United States Department of Justice from 1933 to 2003. In 2003, after a major organization that followed 9/11, the functions of the INS were transferred to three new entities under the newly created Department of Homeland Security: Immigration and Customs Enforcement (ICE), United States Citizenship and Immigration Services (USCIS), and United States Customs and Border Protection (USCBP) (DHS, 2003). Available on <https://www.dhs.gov/who-joined-dhs> Last visited July 19th, 2017.

⁵ 1975 United Nations General Assembly, <http://daccess-dds-ny.un.org/doc/RESOLUTION/GEN/NR0/001/62/IMG/NR000162.pdf?OpenElement>

This research does not make any distinctions regarding the determinants of migration. Rather, the main interest here is on the effect these migrants cause on their homelands, regardless of why they moved. However, I focus on those voluntary economic migrants who have reached the United States regularly. In this research, when talking about a migrant in general, the concept “migrant” is used, and when talking about those migrants in the United States, the concept “immigrant” is used. Furthermore, when talking from the perspective of the sending countries, the term “emigrant” is used.

Furthermore, following Taylor (1999) and De Haas (2010), I adopt the terms sending countries and receiving countries in order to refer to the country where the migrant comes from and the country where the migrant goes to, respectively.

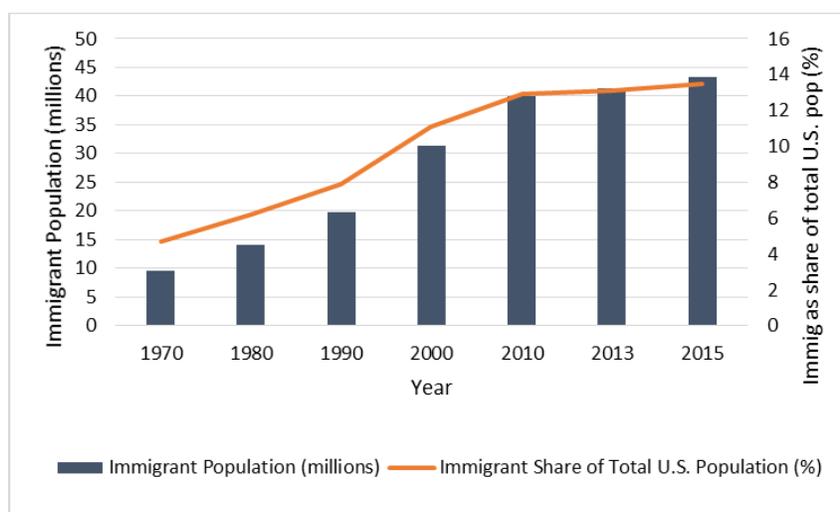
2.2. Migration and diaspora from Latin America in the United States

By 2013, immigrants comprised 13.1 percent of the total United States’ population, and Latin American immigrants made about 46 percent of the total immigrant population, according to data from the Migration Policy Institute (ZONG; BATALOVA, 2017). Graph 1 shows immigrants living in the United States represented in total number and percentage as share of the United States’ population, from 1970 to 2015.

Sheffer (1986) defines a diaspora as an ethnic group or migrants from the same country of origin who reside in a different country and who maintain strong sentimental and material links with their countries of origin. Similarly, and more recently, Brubaker (2005) and Meseguer and Burgess (2014) argue that migrants abroad can be entitled as diaspora once they are identified to have dispersion in space, an orientation, identity and loyalty to their countries of origin, and are able to preserve their identity even when they are in their new destination country. On the other hand, Epstein and Odelia (2016) argue that a diaspora refers to the scattering or dispersion of individuals of the same country or ethnic group in other countries, but continue to maintain a link with their home country. However, Lesser and Batalova (2017) argue that there is no universally accepted conceptualization of the term diaspora and that most of people coincide in a central point, and is the self-identification of a person as being original from a certain country. For

example, in order to identify the Central American diaspora in the United States, it is considered if they were born in a Central American country, whether they report to have any Central American origin, and whether they report to have Central American ancestry.

Graph 1. Immigrants in the United States, Number and Percent, 1970-2015



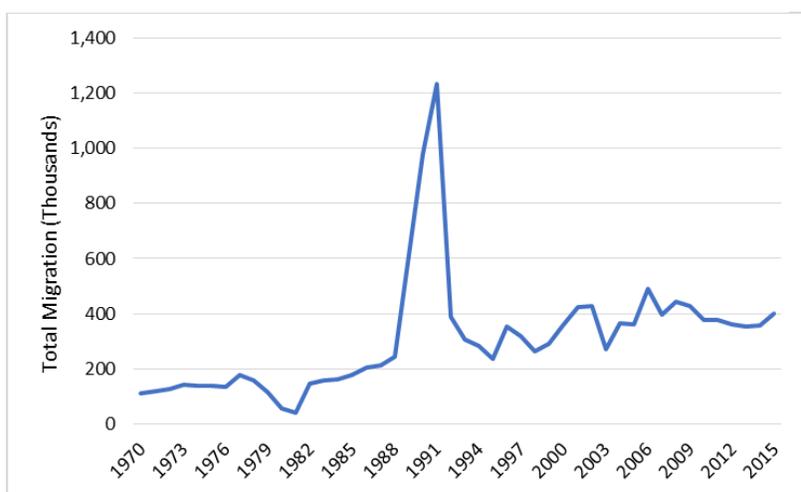
Source: Prepared by the author, based on Zong and Batalova (2017). "Frequently Requested Statistics on Immigrants and Immigration in the United States". Migration Policy Institute

It is argued that some migrants begin to live a dual life, creating networks across political borders. That is, there are migrants in the diasporas who are "bilingual, move easily between cultures, can maintain homes in two countries, and pursue political, economic, and cultural interests that require their presence in both countries" (PORTES, 1997). In this sense, it is understood that migrants abroad exercise influence on the sending countries directly and indirectly in various ways. For example, migrants influence the sending countries by financing households and hometown associations, boosting community development (APARICIO and MESEGUER, 2012), influencing national elections or by lobbying home governments (NYBLADE; O'MAHONY, 2014).

As Pellerin and Mullings (2013) explain, the term diaspora was first studied in the 1980's from the point of view of the experiences migrants had. However, the concept evolved and in the 1990's scholars found that they actually exert influence on economic

development and general well-being in the sending countries, recognizing the importance of their role. As a result, governments came to understand the importance of their migrants abroad and began to create programs in order to manage their diasporas, and to support the activities of the Home Town Associations, as in El Salvador and Mexico (Pellering and Mullings, 2013). Diasporas began to increase their importance and influence, at the point that they have been proven to reverse the negative features of brain drain (Meyer and Wattiaux, 2006).

Graph 2 - Total of Latin American Immigrants Accepted in the United States, 1970 – 2015



Source: Yearbook of Immigration Statistics, Department of Homeland Security 1970-2015

Civil wars and military dictatorships in Latin America through the 1960's until the 1990's played a very determinant role in the forced mass migration, especially from Central America, to the United States during that time. However, in the years following civil wars, the determinants of migration have diversified and it is currently being largely motivated by political, economic, and social unfreedoms, (as Sen (1999b) calls them) such as the lack of job opportunities, the difficulties of accessing to a proper education and health care, the increasing insecurity, and the inequality of income distribution. With the opening of the markets to globalization there was an increment in the tertiary sector and the agricultural crisis caused peasants to move to the big cities, and as the unemployment increased so did the informal jobs. Graph 2 shows the immigrants

accepted by the United States from Latin America from 1970 to 2015⁶. One of the main reasons for the observed peak in 1990 was the Immigration Act of 1990, which helped increase immigration allowing 700,000 immigrants per year (LEIDEN; NEAL, 1990)⁷.

On the other hand, in the United States it increased the demand for a “polarized” workforce that required both extremes, high-skilled workers and low-skilled workers for temporary jobs. The last ones are not very attractive for the native population (MÁRMORA, 2003). This is known as “dual, bifurcated or balkanized labor market”, where there is a primary market for the high-skilled ones with all the benefits, and a secondary market for the low-skilled ones that imply a lower status, precarious conditions and lower wages (VASEY, 2017). Furthermore, as the UNDP describes, the United States’ border enforcement varies according to its economic cycle. In other words, the United States increases its border enforcement during recessions while the opposite happens during economic expansions (UNDP, 2009).

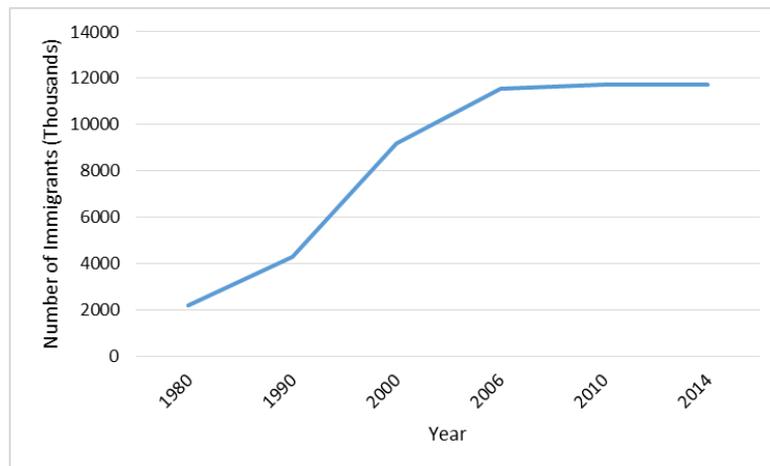
In the case of Mexicans, they increased their migration towards the United States in the early twentieth century motivated by both the political unrest in Mexico and the increasing labor demand in the United States. The first wave began before the World War I, being essentially agricultural and railroad construction workers, just like the second and third wave. They had the opportunity of traveling in and out of the United States due to the Bracero Program, which gave temporary visas to immigrants from 1942 to 1964. The fourth wave began in the 1980s. Mexico’s 1982 economic crisis, the enforcement of the borders, and harder laws contributed for Mexicans and their families to stay in American soil. Since then, Mexicans have been the largest group of immigrants in the United States (See Graph 3) estimating that around half of the Mexicans who migrate to the United States do it irregularly (ALBA; CASTILLO, 2012). In fact, as of 2013, there were an estimated 6.2 million irregular Mexicans residing in the United States, making

⁶ Appendix 1 shows the total of Latin American immigrants accepted in the United States by country. Appendix 2 shows the same data without Mexico. Given that Mexico is the country that most migrants sends to the United States, the rest of the countries seem very low when compared in a single graph. Appendix 2 shows the behavior of the rest of the countries in a better way without Mexico.

⁷ The Immigration Act of 1990 was signed into law by President George Bush in 1990, as a reform to the Immigration and Nationality Act of 1965. It provided family based visas and created five different categories for employment based visas.

the 56 percent of the 11 million irregular immigrants in the country (ZONG; BATALOVA, 2016a).

Graph 3 - Mexican Immigrant Population in the U.S., 1980 – 2015



Source. Source: Prepared by the author based on Zong and Batalova (2016a). "Mexican Immigrants in the United States".

According to Zong and Batalova (2016a), Mexico is the second country of origin in the world that most migrants sends to the United States, only behind China. Additionally, given the proximity of Mexico to the United States, Mexican migrants prefer to migrate to the United States, when compared to other destinations such as Canada, Spain, and Germany. When compared to the rest of immigrants in the United States, Mexicans tend to be less proficient in English, less educated, and younger. They also tend to earn lower incomes but have a higher rate of participation in the labor force of the United States. Besides, Mexicans are less likely to be naturalized as United States citizens when compared to the rest of the immigrant population, but they are the largest

beneficiaries of the Deferred Action for Childhood Arrivals (DACA⁸) program. By 2014, the Mexican diaspora was of 35.4 million people (ZONG; BATALOVA, 2016a)⁹.

In the case of Central America, most of the migrants come from the Northern Triangle, that is, El Salvador, Honduras and Guatemala. These three countries make the 85 percent of the Central American immigrants in the United States (LESSER; BATALOVA, 2017). In 1992, when Mexico was added to the North American Free Trade Agreement (NAFTA), Mexico began a great effort to control irregular migration from Central America. As more and more Central Americans began to use Mexico for transit purposes, the Mexican authorities began to increase the requirements for visas. This was expected to reduce the number of immigrants, but it had an unexpected turn and irregular transit increased, giving smugglers more work (ALBA; CASTILLO, 2012). During the 1980's, Mexico maintained a tolerant position towards banning and deportation. However, under pressure from the United States, Mexico drastically increased its efforts. About 100,000 Central Americans are apprehended and returned per year, most of them from Guatemala, Honduras and El Salvador. This number was only 10,000 during the 1980's (MAHLER; UGRINA, 2006). Only in 2009, deportations increased to about 61,000 people from Guatemala, Honduras and El Salvador (Government of Mexico, 2010)¹⁰.

By 2015, there were about 3.4 million Central American immigrants in the United States, making the 8 percent of the whole immigrant population (See Graph 4). The Central American region is particularly vulnerable compared to their neighbors from the North and the South. Even after the civil wars in the region ended, there has been a continuous political instability and economic volatility. From the 1990s onward, gang violence became increasingly distressing, being an additional reason for Central

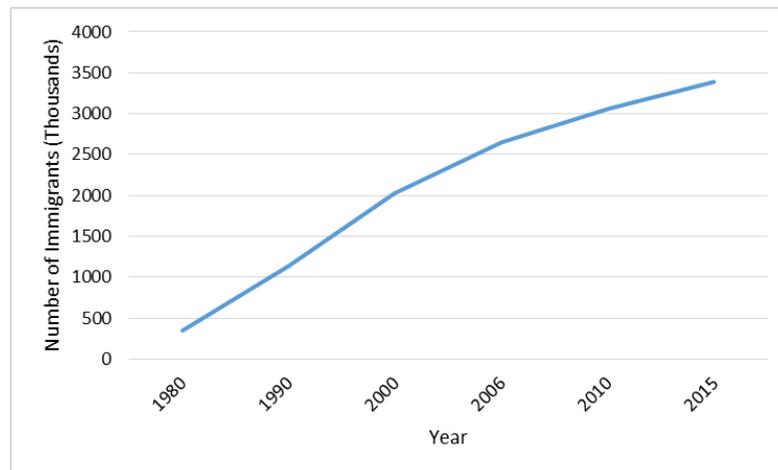
⁸ The DACA program provides temporary deportation relief and work authorization for people who arrived in the United States as children, acknowledging that they had been raised in the United States (USCIS, 2017). Available at <https://www.uscis.gov/humanitarian/consideration-deferred-action-childhood-arrivals-daca> Last visited July 16, 2017. The program was shut down by the U.S. President, Donald Trump on September, 2017 leaving the issue for Congress to solve. For more information see Knopf (2017).

⁹ Appendices 7 and 8 show the Latin American diaspora in the United States by country, with Mexico and without Mexico, respectively, in order to show the variation of each country.

¹⁰ Government of Mexico. Informe del Estado Mexicano sobre Secuestro, Extorsión y Otros Delitos Cometidos contra Personas Migrantes en Tránsito por Territorio Mexicano. Available at http://www.seguridadcondemocracia.org/administrador_de_carpetas/migracion_y_seguridad/pdf/INFORME%20MIGRANTES-CIDH.pdf Last visited August 15, 2017.

Americans to migrate seeking refuge in the United States. Natural disasters such as hurricanes and earthquakes, somewhat common in the area, have also added to the list of reasons for migrating. The United States' government provided a Temporary Protected Status (TPS¹¹) after some natural disasters in the region, and has been renewed annually for Honduras, Nicaragua and El Salvador up until early 2018 (LESSER; BATALOVA, 2017).

Graph 4 - Central American Immigrant Population in the U.S., 1980 – 2015



Source: Prepared by the author based on Lesser and Batalova (2017). "Central American Immigrants in the United States".

When compared to the rest of the immigrant population in the United States, the American Community Survey¹² showed that Central Americans are in average less educated but more likely to be employed, just like Mexicans. They are also less proficient in English, they tend to have lower incomes and they are younger than the rest of the

¹¹ Temporary Protected Status (TPS) is designated to a certain country that has people already in the United States and the conditions of such country do not permit the people to return safely to their countries of origin. These conditions might be an ongoing armed conflict, an environmental disaster or other extraordinary conditions (USCIS, 2017). Available at <https://www.uscis.gov/humanitarian/temporary-protected-status#What%20is%20TPS?> Last visited July 14, 2017. This program has helped some Latin American countries' migrants, such as El Salvador, Haiti, Honduras, Nicaragua. See (LEIDEN; NEAL, 1990).

¹² American Community Survey is a survey that provides yearly information about the United States and its population. It provides information on demographic, housing, economic, social data. Available on <https://www.census.gov/programs-surveys/acs>

immigrant population in the United States. Central American immigrants are also less likely to be naturalized citizens, sharing another similitude with the Mexican immigrants. Additionally, from all the Central American migrants, 70 percent have migrated to the United States, while the rest of them live in other countries of the region, Canada and Europe (LESSER; BATALOVA, 2017).

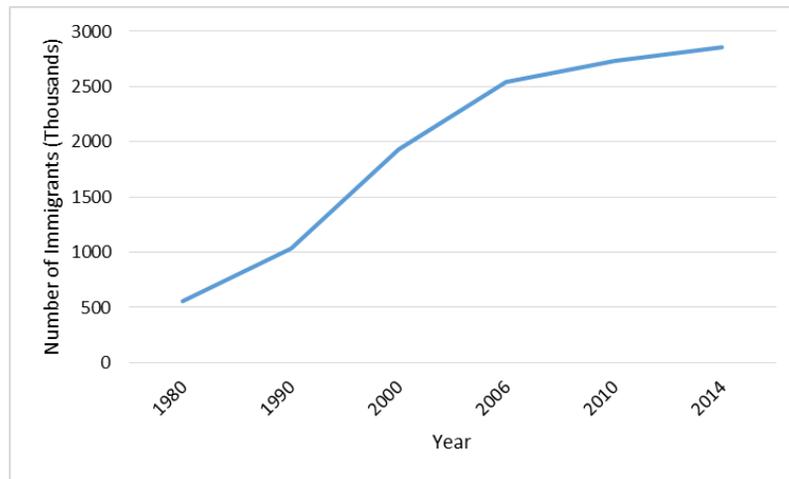
According to data from the Migration Policy Institute, between 2010 and 2014 there were about 1.7 million Central American irregular immigrants in the United States, which makes about 15 percent of the 11 million irregular immigrants in the country. The top five countries of origin of the irregular immigrants in the United States are Mexico, Guatemala, Honduras, El Salvador, and China (LESSER; BATALOVA, 2017). As it can be seen, four of them are from Latin America. Additionally, the Central American diaspora in the United States is of about 6.2 million who reported to have been born in Central America or to have Central American ancestry in 2015 (LESSER; BATALOVA, 2017).

In the case of South America, migrants who choose to go to the United States are not as many compared to Mexico and Central America. However, the number of South American migrants has had a considerable increase. According to the Migration Policy Institute, in 1960 South American immigrants in the United States reached only 90,000 people. By 2014, there were about 2.9 million South American immigrants (see Graph 5), making 7 per cent of the total immigrant population (ZONG; BATALOVA, 2016b).

From South America, Colombia, Peru, Ecuador, Brazil, and Guyana are the countries that most migrants send to the United States. By 2014, these countries made the 76.7 percent of the total of South American immigrants in the United States (ZONG; BATALOVA, 2016b). Out of the total of South American migrants, more than a third choose other South American countries, while the rest of them are in Europe and North America, being the United States the first option (ZONG; BATALOVA, 2016b). According to the American Community Survey, South American immigrants are more likely to have a better proficiency in English language, to be more educated, to participate more in the labor force, to have higher incomes, and to have a higher rate of naturalization, compared to the rest of the immigrants in the country. Additionally, the Colombian diaspora is the

largest when compared to the rest of the South American diasporas, followed by Ecuadorans and Peruvians (ZONG; BATALOVA, 2016b).

Graph 5 - South American Immigrant Population in the U.S., 1980 – 2014



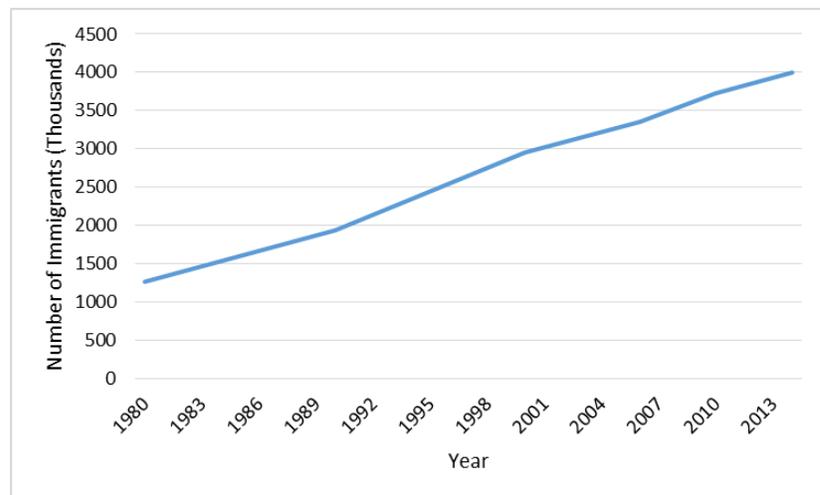
Source: Prepared by the author based on Zong and Batalova, 2016. South American Immigrants in the United States.

With respect to the Caribbean immigration in the United States, by 2014, there were 4 million Caribbean immigrants, making the 9 percent of the total immigrant population in the country (See Graph 6). 70 percent of these Caribbean immigrants came from Cuba¹³, the Dominican Republic and Haiti. Migration from these 3 countries began

¹³ In the specific case of Cuba, they have received special treatment under the immigration law of the United States, namely, the Cuban Adjustment Act (CAA) of 1966, the 1994 and 1995 U.S. – Cuba Migration Accords (wet foot, dry foot). The Cuban Adjustment Act allowed Cubans to get permanent residency in the United States after being 1 year in the country, if they are admitted or paroled, and if they are admissible as immigrants. This policy would allow Cubans who could reach the territorial waters of the United States to pursue residency a year later. President Clinton agreed with Cuba that the United States would stop admitting Cubans intercepted in territorial waters of the United States. After 1995, if a Cuban was caught in the water, he was sent to a third country. On the other hand, if a Cuban could reach soil in the United States, he/she was allowed to stay in the country with the opportunity to get permanent residency a year later. See <http://www.presidency.ucsb.edu/ws/?pid=51305> Last visited on August 15, 2017. However, this special treatment for Cubans expired on January 12, 2017, after President Barack Obama announced the reestablishment of full diplomatic relations with Cuba. See <https://www.dhs.gov/publication/changes-parole-and-expedited-removal-policies-affecting-cuban-nationals> . On the other hand, the Cuban Family Reunification Parole Program is still in effect (USCIC, 2017). Available at <https://www.uscis.gov/greencard/caa> Last visited August 15, 2017.

due to political instability causing high-skilled professionals and elite members to migrate. Later on, people from other social classes were able to migrate as well (in the case of Cuba they usually choose irregular ways to migrate, given the restrictions to free mobility in the country). Caribbean people began to migrate to the United States by the early 1990s, accelerating in the 1960s (ZONG; BATALOVA, 2016c). Compared to other migrants from Latin America, Caribbean migrants come from much more diversified backgrounds, cultures and languages. While most of the Latin American countries have in common Spanish language, for example, Caribbean people speak Spanish, French, and English, as well as native dialects.

Graph 6 - Caribbean Immigrant Population in the U.S., 1980 – 2014



Source: Prepared by the author based on Zong and Batalova, 2016. Caribbean Immigrants in the United States.

The Migration Policy Institute estimates that between 2010 and 2014, there were 232,000 irregular Caribbean immigrants in the United States, with the Dominican Republic, Jamaica and Haiti being the top countries. On the other hand, the United States is the first option for Caribbean migrants, followed by Canada, the Dominican Republic, and Spain (ZONG; BATALOVA, 2016c). When compared to the rest of the immigrant population in the United States, Caribbean immigrants were more likely to be proficient in English. They were also older and more likely to be in a working age. Furthermore,

Caribbean immigrants were more likely to have lower education attainment, to have lower incomes and to be in poverty. However, they were also more likely to be naturalized, when compared to the rest of the immigrant population, sharing some similitude with South Americans (ZONG; BATALOVA, 2016c).

2.3. High-skilled and low-skilled migrants

The International Organization for Migration defines a high-skilled migrant as a person who has acquired professional experience or skills that usually grant them preferential treatment with regard to his/her admission to a receiving country (“Key Migration Terms”, 2015). This means that this person faces fewer restrictions with respect to how long he/she is staying in the receiving country, change of employment and family reunification, even when they are subject to a contract with a specific employer. National statistics authorities often record high-skilled migration based on the migrant’s education level, occupation and salary. However, the most commonly accepted measure of a high-skilled migrant is his/her education level, which should have completed at least one year of tertiary education (PARSONS et al., 2015). Consequently, low-skilled migrants would be those who have not attained tertiary education.

Usually, in industrialized countries high-skilled workers are more welcome when compared to the low-skilled ones, even when there is high demand for both types of immigrants. According to Martin (2015), for example, trade agreements between developed and least developed countries rarely take into consideration the low-skilled immigrants. In the case of the North American Free Trade Agreement (NAFTA), signed between Mexico, Canada and the United States, it limits labor migration to high-skilled workers. The United States and Chile signed a trade agreement in 2003 that also allowed the migration and temporary residence for business visitors, necessary personnel for the trade agreement, workers transferred by their companies, and professional workers. (AMARELLE; FORNALÉ, 2015). There are other trade agreements that allow intra-regional high-skilled migration in Latin America, such as The Caribbean Community

(CARICOM), the Central American Common Market, and the Common Market of the South (MERCOSUR). The Andean Community has intended to liberalize the free movement of both high-skilled and low-skilled workers since 2002. Latin America has signed, between 1991 and 2000, 28 intra-regional agreements on migration and 39 agreements with other countries outside the region (O'NEIL; HAMILTON; PAPADEMETRIOU, 2005).

Nevertheless, there are some specific bilateral programs that allow the low-skilled migrants to temporarily work in the host-country. The United States, for instance, began the guest worker programs during the Second World War in order to fulfill labor shortages (such as the Bracero program for Mexicans) (MARTIN, 2015). The United States has currently the H-1B¹⁴ program for high-skilled workers who are allowed to stay in the country for six years or more and are required university education. Up to 65,000 workers can enter the United States per year under this program, plus 20,000 more for those who have gained Master's Degrees in the United States. These workers have the advantage of switching to immigrants status as long as their employers sponsor them for this. Additionally, the H-2A¹⁵ (temporary agricultural workers) and H-2B¹⁶ (temporary non-agricultural workers) programs are designed for low-skilled workers. There is a limit of 66,000 immigrants under the latter program, while no limit has been set for the first one.

2.3.1. High-skilled and low-skilled immigrants from Latin America in the United States

High-skilled emigration is usually seen as negative by the sending countries, and as positive by the receiving countries. For the first ones, it is a brain drain. For the second ones, it is a brain gain. It cannot be denied that the countries that lose high-skilled people

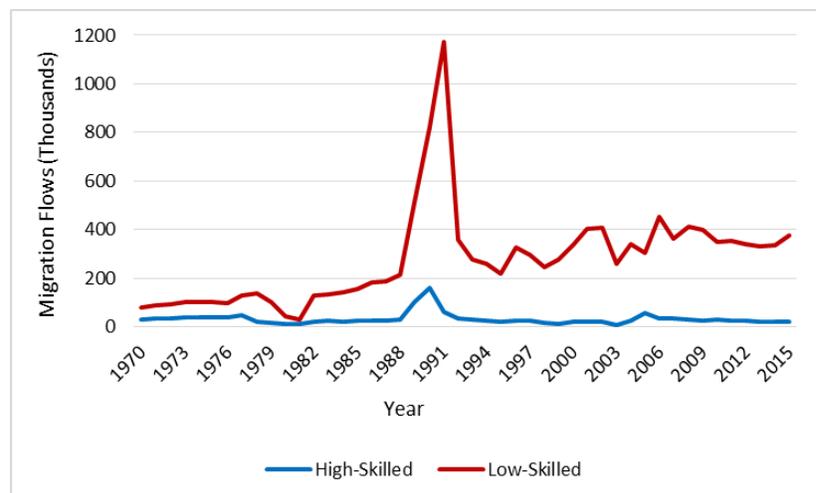
¹⁴ Department of Homeland Security. Available on <https://www.uscis.gov/working-united-states/temporary-workers/h-1b-specialty-occupations-and-fashion-models/h-1b-fiscal-year-fy-2018-cap-season> Last visited on September 6, 2017.

¹⁵ Idem. Available on <https://www.uscis.gov/working-united-states/temporary-workers/h-2a-temporary-agricultural-workers> Last visited on September 6, 2017.

¹⁶ Idem. Available on <https://www.uscis.gov/working-united-states/temporary-workers/h-2b-temporary-non-agricultural-workers> Last visited on September 6, 2017.

to emigration have to face a reduction of highly trained personnel in important areas such as the economy, education and health and their governments usually resent all the investment they have done for many years in their education. However, instead of blaming them for leaving, governments should give attention to the reasons why they are leaving. On the other hand, developed countries such as the United States are more willing to accept high-skilled workers for longer periods of time and even permanently, while low-skilled workers are accepted as temporary, rotating them more rapidly. For example, the H1B visas can grant up to six years for high-skilled migrants, while low-skilled migrants are granted up to three years through the H2B visas (UNDP, 2009).

Graph 7 - High-Skilled and Low-Skilled Latin American Immigrants Accepted by Year in the United States, 1970-2015



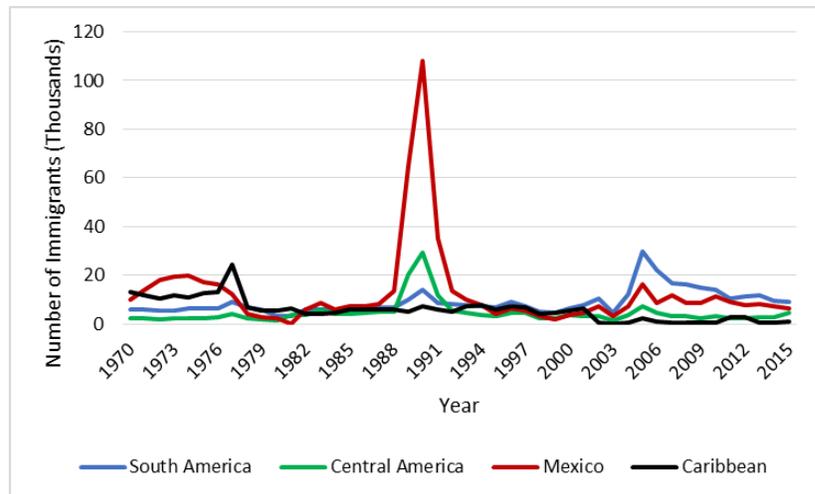
Source: Yearbook of Immigration Statistics, Department of Homeland Security 1970-2015

Graph 7 shows the pattern of high-skilled and low-skilled immigrants who have been accepted by year in the United States¹⁷. Most of these immigrants are low-skilled and the trend is upwards. On the other hand, high-skilled immigration has been rather stable across the period studied here. The peak in 1990 that is also observed in Graph

¹⁷ Appendices 3 and 5 show the high-skilled and low-skilled Latin American immigrants accepted in the United States by country. Appendices 4 and 6 show these results without Mexico in order to show the variation of each country in a better way.

2 is repeated here, although the peak for the high-skilled immigration was less dramatic compared to the low-skilled immigration.

Graph 8 - High-Skilled Immigrants from Latin America Accepted by Year in the United States, 1970-2015 (by region)



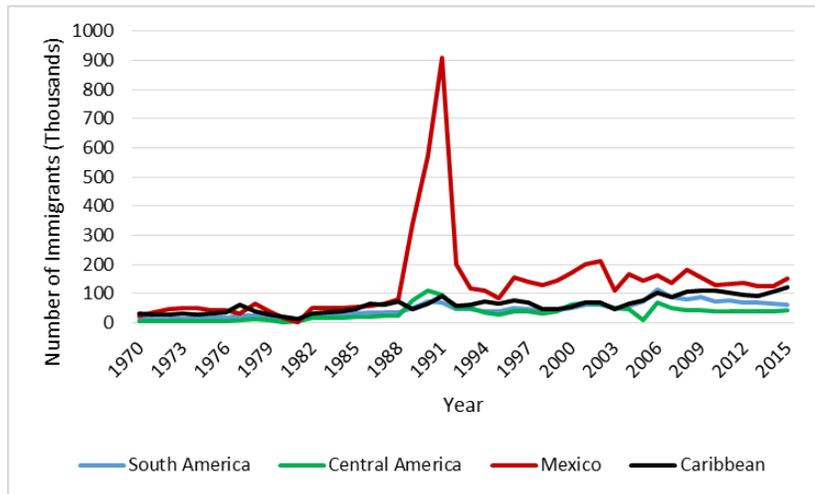
Source: Yearbook of Immigration Statistics, Department of Homeland Security 1970-2015

With respect to the high-skilled immigrants accepted in the United States, Graph 8 shows that South American immigrants have had a rather constant supply of people, with peaks in 1990 and 2006. On the other hand, Central American immigrants showed a lower supply of people compared with South America, with a significant peak in 1990. Mexican high-skilled workers had a significant peak in the 1970s, declining in 1978, and with an enormous peak in 1990 that is much higher than that of the rest of Latin Americans, and a small peak in 2006. Lastly, Caribbean high-skilled workers show a significant peak in 1978 and a rather low supply thereafter. South American and Mexican high-skilled migrants decreased since 2012, while Central American high-skilled workers have a slight increase in 2014.

With respect to the low-skilled immigrants, Graph 9 shows that Caribbean and Mexican workers seem to follow a similar pattern towards an increase in the last decade of analysis. Central and South Americans show a rather constant behavior during the

same period. Central Americans, Caribbeans, and Mexicans had a significant higher peak in 1990, being Mexico the one that showed the highest one.

Graph 9 - Low-Skilled Immigrants from Latin America Accepted by Year in the United States, 1970-2015 (by region)

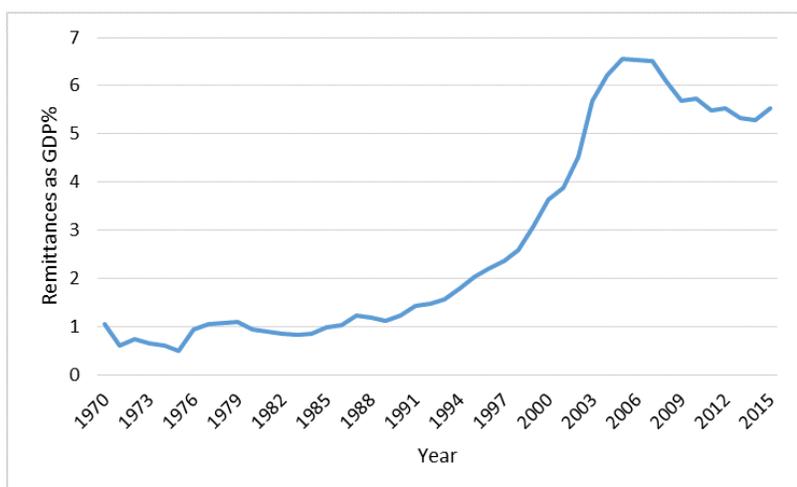


Source: Yearbook of Immigration Statistics, Department of Homeland Security 1970-2015

2.4. Financial, social, and political remittances

Financial remittances are, basically, transfers of money sent from a migrant worker to another person in his/her home country. By 2012, global remittances from migrants to their countries reached US \$401 billion and are considered to be competing with international aid and foreign direct investment as one of the largest financial inflows to developing countries. Graph 10 shows the pattern of the financial remittances received, in average as percentage of the GDP, in the Latin American region. There is an exponential increase since 1990, coinciding with the peak in previous graphs, reaching a peak in 2006 and slowing down since then. Nevertheless, remittances remain an important inflow of money for the region. Bodomo *et al* (2013) argue that remittances have the advantage of going directly to the people, unlike foreign aid that is likely to be misappropriated by governments and institutions.

Graph 10 – Financial remittances Received in Latin America, (Yearly Average), 1970-2015



Source: World Development Indicators, 2016

Financial remittances not only help the receiving household but also the community in general when they are used for expenditures and investment, housing acquisition, financial assets and small companies (MESNARD, 2004; RATHA, 2013). The logic is very simple: remittances increase income, and income improves the quality of life. In this sense, remittances would significantly increase not only the income in the developing nations but also in the world on the long-run (HATTON; WILLIAMSON; OTHERS, 2005; BROWN, 2006; PETERS, 2014). It has been found empirically that households that receive remittances have a higher probability of investing, compared to those households that do not receive remittances. And even when the biggest part of remittances goes to nonproductive investments (consumerism), they can have a powerful multiplier effect on the local and regional migrant sending areas generating employment and income for those households that do not receive remittances, contributing to the alleviation of poverty (DE HAAS, 2010).

The United States is the largest source of remittances for Latin America and the Caribbean, totaling 73 per cent of the total inflow of remittances to the region in 2011. Mexico was the principal receiver of remittances of the region in the same year,

accounting for 37 percent of them (World Bank, 2013). In the case of some Latin American countries, by 2015 remittances constituted very important amounts as share of their GDP. For example, remittances in Haiti represent the 25 percent of its GDP, 18 percent in the case of Honduras, 16.57 percent in the case of El Salvador, and 10.3 percent in the case of Guatemala. These are official numbers. However, remittances that are sent through irregular channels are very difficult to track and measure and are, presumably, larger.

On the other hand, social and political remittances can also exercise a great influence on the expansion of freedom of the people in the sending countries. Levitt (1998) defines social remittances as “the ideas, behaviors, identities, and social capital that flow from receiving to sending country communities” (LEVITT, 1998; p.927). These type of remittances are usually transferred through communication channels that migrants use to stay in touch with their families and friends in their countries of origin.

Lastly, political remittances are considered to be the influence that migrants can have on the political behavior of their families and friends in the sending countries (LEVITT, 1998). For instance, (CÓRDOVA; HISKEY, 2015) found that non-migrants who have stronger ties with those relatives in the United States were more likely to be more involved in politics, to sympathize more with a political party and were more likely to persuade others to vote for a specific party. The authors also found that the use of internet among non-migrants with strong ties to migrants resulted in an increased political knowledge and interest. Aparicio and Meseguer (2012) also show how hometown associations (HTAs) play a very important role in the cooperation with the sending countries, and that they also serve as a channel through which migrants can involve themselves and influence politics in their home countries. Furthermore, (O'MAHONY, 2013) also finds that the flow of remittances increases in electoral years, evidencing both the influence that migrants can have in the sending countries and the increased political engagement of those back home who receive remittances when compared to those who do not receive such income.

3. HUMAN DEVELOPMENT. EVOLUTION OF THE DEBATE

“Theories that are not user-friendly do not spread”

(Sabina Alkire)

It is not the purpose of this research to redefine human development. Yet, it tries to understand what it really means by diving into the theoretical debates previously published by key researchers. All this in order to understand the vastness of the concept, what is the best way of measuring it, and assess the role that international migration might have in how the human development in Latin America evolves.

Even though the idea of a human centered development is not new, the most commonly accepted concept and used today in economic studies is a product of the work of Amartya Sen¹⁸, Mahbub ul Haq¹⁹, Khadija Haq²⁰, and Üner Kirdar²¹, among many others. These authors pondered that the idea of development should be beyond the economic growth of a country, contrary to measuring such development by the GDP or GNP, as orthodox economists did at that time. As Hirai (2017) discusses, the central idea of having the human condition at the center of development goes back to Aristotle, Adam Smith and Immanuel Kant. Aristotle, for example, had the notion that wealth should not be the end, and that it should be seen, instead, as the means to achieve more (HIRAI,

¹⁸ Amartya Sen, winner of the Nobel Memorial Prize in Economic Sciences in 1999, has made important contributions to the development of the Human Development Index, along Mahbub ul Haq and the UNDP. He has also contributed to the economic theories of famines, welfare economics, economic and social justice, and social choice theory (Encyclopedia Britannica, 2016). Available at <https://www.britannica.com/biography/Amartya-Sen> Last visited June 7, 2017.

¹⁹ Mahbub ul Haq worked in the National Planning Commission in Pakistan and became a special adviser to the president of the World Bank, McNamara, in 1970. He was the Director of the Policy Planning and Program Review department at the World Bank, where he worked for the World Bank to have poverty and basic needs as a priority. After leaving the World Bank, he became Minister of Commerce, Planning, and Finance in Pakistan. In 1989, he joined the UNDP and founded the Human Development Report. (JOLLY, 2007).

²⁰ Khadija Haq. Founder of the South Asian Centre for Human Development with her husband Mahbub ul Haq. Director of the NSRT for almost 30 years (JOLLY, 2007). President of the Human Development Centre in Lahore, Pakistan.

²¹ Uner Kirdar. United Nations official and retired Turkish diplomat. Along with Khadija Haq edited the many reports and books result from the NSRT discussions, which were important steps towards the UNDP Human Development Reports (JOLLY, 2007). Has a long history of work on international development and on the diffusion of the concept of human development.

2017). On the other hand, Adam Smith was concerned with human capabilities as determinants of well-being and stressed the importance of moral and sympathy when talking about the economy (SEN, 1988; HIRAI, 2017). Immanuel Kant also recognized that the human being should be regarded as an end, and not as a means only (KANT, 1968). In other words, the idea of a human-centered approach is not new. Why then many scholars still focus on economic terms only as a proxy for human well-being? Early utilitarianism played an important role on this point of view, given that they vowed for a single measure of well-being (STANTON, 2007).

(DRÈZE; SEN, 1995) describe how after the Second World War the field of development economics originated having as its main preoccupation the growth of real income per capita. However, there was a very important shift with the Asian-African Conference of 1955 in Bandung, Indonesia. They were the first ones who reacted against the conception of development as entirely economical, and it covered, instead, a wide conception of development that included culture, human rights, self-determination and world peace (HIRAI, 2017). Since then, the conceptualization of well-being has been addressed from different points of view, and it has been called many different names: quality of life, living standards, welfare, social welfare, utility, prosperity, development, capability expansion, human development, etc. (MCGILLIVRAY, 2007). All these concepts overlap in the basic meaning of well-being, which is an evaluation of the situation of the “being” of a person, or in other words, the situation of the life of a person. Even though the first conceptions of well-being were of utilitarian nature, that is, focusing usually on a single measure of economic well-being, later conceptions were of a more multidimensional nature, and with this, the efforts for measuring began (MCGILLIVRAY, 2007).

As McGillivray and Noorbakhsh (2007) and Stanton (2007) describe, there were some early attempts to measure well-being beyond economic growth. For example, the United Nations Research Institute for Social Development (UNRISD)²² published in 1966

²² Established in 1963. Is an autonomous research institute within the UN system that assumes research on social development that is important for the work of the UN Secretariat, regional commissions, national institutions, among others. UNRISD (2017), Available on [http://www.unrisd.org/80256B3C005BF3C2/\(httpPages\)/1889BA294D2950E08025791F005CD710?OpenDocument](http://www.unrisd.org/80256B3C005BF3C2/(httpPages)/1889BA294D2950E08025791F005CD710?OpenDocument) . Last visited June, 27th 2017.

a study of the level of living index in 20 countries, where they measured this index taking into consideration factors such as physical needs, cultural needs and higher needs. (DREWNOWSKI; SCOTT, 1966 apud STANTON, 2007). The measure was much criticized (See HICKS; STREETEN, 1979). The same organization published a study in 1975, where they conceived a development index considering 9 social and 9 economic indicators. Some authors criticized it and found that this index was highly correlated with the GNP per capita, and therefore, it was not of much utility (HICKS; STREETEN, 1979). There was also a ranking in 1975 by the United Nations economic and Social council (ECOSOC), where 140 countries were ranked according to indicators such as social (literacy and life expectancy) and economic indicators (energy, manufacturing share of GDP, manufacturing share of exports, employment, and number of telephones) (HICKS; STREETEN, 1979; STANTON, 2007). Hicks and Streeten (1979) noted that this last measure was biased in favor of economic indicators, instead of the social ones.

Some change came with what Stanton calls “the humanist revolution” in 1971, with the work of John Rawls, *A Theory of Justice*, where he defined well-being as having social primary goods, or in other words, things that human beings need or desire (RAWLS, 1971; STANTON, 2007). Rawls also spoke of the right of having some basic liberties and conditions of equality of opportunities aimed at benefiting those members of society who are less advantaged (RAWLS, 1971). However, the notion of the concept of human development as we know it today took force in the late 1970s with the establishment of the North-South Round Table (NSRT²³). By the mid-1980s, the group had already adopted the human development focus, trying to understand it and assess courses of action. Üner Kirdar and Khadija Haq edited and published the books, papers and reports

²³ The NSRT was founded by Barbara Ward in 1977 under the Society for International Development (SID). Mahbub ul Haq, Maurice Strong, Khadija Haq and Richard Jolly acted as chairpersons during its functioning. “Among the group of senior economists preparing the Pearson Report were several who were later to be active in SID and the NSRT: Sartaj Aziz, Dharam Ghai, Pat Blair, Carlos Diaz Alejandro and Goran Ohlin. The more than 170 participants included Mahbub ul Haq, Enrique Iglesias, Gerry Helleiner, Reg Green, Michael Bruno, Samir Amin and a number of persons already more established in development such as Hollis Chenery, Albert Hirschman, Harry G. Johnson, Paul Hoffman, I.G. Patel, Dudley Seers, Hans Singer, Jan Tinbergen, Robert Triffin and Robert McNamara, then head of the World Bank. Many other persons who had or were about to play important parts in SID were also present, including Chief Adebó, Irving Friedman, Jim Grant, Maurice Strong and Ponna Wignaraja” (JOLLY, 2007).

that were the result of the work of the NSRT and that eventually became the base for the development of the annual UNDP's Human Development Reports (JOLLY, 2007).

The basic needs concept was the predecessor of the human development concept (HAQ et al., 1982; JOLLY, 1989; JOLLY *et al* 2009). It was first used in the 1972 annual speech by Robert McNamara, President of the World Bank at that time. In his speech, McNamara said that special attention should be given to the least privileged people who did not see any effective reduction of poverty with the current notion of economic-growth-only development (HIRAI, 2017). After this, the concept of basic needs was formally developed by the International Labor Organization (ILO) in 1976 and it was composed of private consumption and public services. Furthermore, the concept goes on to state the importance of the participation of people in those decisions that would eventually affect them (HIRAI, 2017). Indeed, the concept of basic needs was a very important step for understanding human development.

In 1987, the Population Crisis Committee published the Human Suffering Index (HSI) and used a set of 10 indicators in order to measure some dimensions of social well-being. These indicators were the rate of inflation, infant mortality rate, labor force growth, rate of urban population growth, per capita income, energy consumption, supply of calories, access to clean water, literacy and personal freedom (KELLEY, 1989). This measure was an important effort to quantify well-being, but it did not conceptualize the term and it suffered strong criticism (KELLEY, 1989). On the other hand, in 1979, the Physical Quality of Life Index (PQLI) was proposed by the Overseas Development Council (ODC), which considered life expectancy at age one, literacy rate and infant mortality. The authors were based on the basic needs criteria and claimed that the indicators used for such an index should be focused on results instead of on inputs. This measure was also heavily criticized (HICKS; STREETEN, 1979; MCGILLIVRAY; NOORBAKHS, 2007).

In the World Development Report of 1980, the World Bank defined for the first time what human development represented at that moment. In the forward of the report, Robert McNamara describes human development as "education and training, better health and nutrition, and fertility reduction" (WORLD BANK, 1980; p. iii). Later on, the

report states that human development is both an end and a means of economic development, and measures it through indicators about education, health, nutrition, and fertility (WORLD BANK, 1980). With this report, an important breakthrough was achieved, not only at defining the concept but also at trying to measure it, according to the understanding they had at that moment. There was an important change from the will to improve human development in order to improve economic growth, to understanding that human development is both a means and an end. Alas, this idea was not used at the World Bank after McNamara's resignation in 1982 (HIRAI, 2017).

In 1981 Amartya Sen published his book *Poverty and Famines: An Essay on Entitlement and Deprivation*, where he argues that the existence of famines and poverty experienced by some members of the society does not mean that it is a generalized problem. With this, he seeks to confront the (at that time) notion that famines are caused by food availability decline (FAD). In other words, the fact that some people experience famines is due to them lacking on the entitlements and the power of acquisition. This also goes against the conventional wisdom from economic growth theorists who argued that economic growth alone would eliminate poverty (KURIEN, 1983). This is the key that Sen uses in order to help understand that economic growth should not be the end, but the means to achieve the expansion of freedoms, and economic growth needed to be hand in hand with a preoccupation for the satisfaction of the basic needs such as a proper access to health and education. The only fact that a country is rich does not guarantee that the whole population will be out of poverty. This wealth needs to be well distributed among the citizens. Here, Sen addresses the entitlements approach. In his view, the person is entitled to the ownership of food through exchange or trade, and when the person cannot acquire it, there is an entitlement failure, which implies social deprivation (SEN, 1981). Thus, a famine can occur even in the absence of a food availability decline, and the most common reason why a person cannot acquire food is that he/she does not have enough trade currency (SEN, 1981).

By 1982, in the book by Mahbub ul Haq et al. (1982) *First Things First: Meeting Basic Human Needs in the Developing Countries*, development is analyzed from the basic human needs approach and it is outlined that the ultimate purpose of development

is to meet the human basic needs of individuals. In other words, the authors understood development as the process of providing all people with the chances for “a full life”, improving the human condition (HAQ et al., 1982). This was a very important step into the debate on development, where it was already a preoccupation with the poor, albeit a top-down approach. The authors understood that productivity is a very important part for people to achieve a decent standard of life, but at the same time, they also recognized that a high productivity cannot be met without a proper access to education and health (HAQ et al., 1982). Even though, at that time, the understanding of the concept was that improving employment was aimed at growth, and the improvement in education was aimed at productivity (HIRAI, 2017). Still, the concept represented an improvement *vis-à-vis* the economic growth orthodoxy.

Meanwhile, Amartya Sen was debating the entitlements and capabilities approach. The author argued that the orthodox way of seeing development through income was deficient, and that “entitlements of people and the capabilities these entitlements generate” should be the focus instead (SEN, 1983; p.754). Sen clarifies that an entitlement is the commodity bundle that a person has (such as wealth, health, education or freedom) which enables her/him to acquire some capabilities (such as being well nourished or being healthy). Therefore, the author states that development should be seen as the process of expanding the capabilities of people (SEN, 1983). This is why, the author argues, problems such as starvation are better seen through the idea of entitlement rather than through the idea of supply. This is because starvation does not only depend on the supply of food, but also on people being entitled to that food through prices (as in a market process) or through the government (as in a communist economy) (SEN, 1983). In other words, famines can happen even when there is enough food available when there is entitlement failure in certain sectors of the population. Therefore, following this line of thought, a measure of distribution of wealth would be more accurate than the GNP per se and it would tell more about the human development of a country.

Sen considers here the standard of life as the capability to live well. In other words, in this approach, the ability to live without hunger or malnutrition holds a great value and the commodity possessions are seen from the point of view of their contribution to the

capabilities and the freedoms a person can have through them (SEN, 1984). Furthermore, the author argues that this capabilities approach is of particular importance when analyzing the standard of living in poor countries. He asks, for example, whether people in the poor countries are well nourished, free from avoidable morbidity, if they live long and how literate they are. Sen argues that the capabilities approach is also important to analyze poverty in rich countries in terms of participation in society, the quality of the job availability and their education system, etc. (SEN, 1984).

There are two important issues to be noted here. The first one is that Sen is already outlining the basics of what is going to be analyzed in the Human Development Reports of the UNDP. The second one is that Sen is already thinking ahead of the NSRT, as while the NSRT is still focused on poor countries Sen is also thinking about the poor in rich countries. In short, the author clarifies that talking about capabilities is about “what the person can do or can be [...] Freedom is the issue, not commodities, nor utility as such” (SEN, 1984; p.86). The capabilities approach is of such importance exactly because of the freedom tacit in it. Sen explains this very well by picturing an ascetic who chooses to fast and who becomes undernourished because of this, even when he might be rich. The key here is the freedom that this person has that gives him the capability of choosing to eat or to fast, regardless of the possession of food. This is why, the author argues, it might be better to look at the “capability to be nourished” instead of “nourishment” directly (SEN, 1984).

At the same time, the NSRT was working along with the UNDP Development Study Program on a series of Roundtables that were aimed at the study of “human resource development” and its importance for the solution to the world financial crisis of the moment (HIRAI, 2017). Even though, they would still not use the term human development, these Roundtables recognized the importance of “human resource development” and that it could not be separated from economic development. For example, the Roundtable in Istanbul in 1983 had at its heart the consequences of the international monetary and financial situation at that moment for the poorest people and the insufficient attention that was given to the human resource development, even though it is not yet considered as the end of development (NSRT, 1983).

This Roundtable of Istanbul resulted in a book, *Crisis of the 80s* (HAQ, 1985) . The book mentions twice the concept of human development. The first time is to call the attention into providing diverse paradigms of human development, which gives the impression that the NSRT is looking into what human development really means. The second time the concept is mentioned as a way to improve the per capita living standards. On the other hand, the concept of “human resource development” was mentioned thirty four times in this book, evidencing the conflict of concepts at that time. In the foreword of the book Mahbub ul Haq states that the discussions of the NSRT are aimed at conceiving the right policies in order to achieve a “maximum and equitable growth of the world economy, which would accelerate human resource development” (HAQ, 1985; p. 2). It can be perceived in this work that there was already a real preoccupation with the study and improvement of the human development. At the same time, it is evident the transition from the concept of human resource development to the concept of human development. In the book it is stated that “the development of human resources means the development of management capabilities” and that “only with the growth of this factor can developing countries come into self-sustaining, stable development” (HAQ, 1985; p.145). Notice here the first time that the concept of “capabilities” comes into consideration in the discussions of the group.

Khadija Haq, in *Global Development: Issues and Choices*, begins by saying that human resource development is “the truly cornerstone of world development” (HAQ, 1983; p.1). Here there is a change in the discourse from considering “human resource development” at the center of world development instead of considering it as a means. The next year, the NSRT session in Santiago analyzed the adjustment programs imposed by the IMF during those years. The NSRT recognized that the adjustment programs had had some progress in debt reducing, albeit at an enormous human cost, especially for developing countries, causing an important decrease in productivity and wages, and a rise in unemployment and poverty (HAQ; MASSAD, 1984). Human resource development is mentioned seven times. Human development is mentioned twice. The concept was still understood as a means for development.

Amartya Sen, on the other hand, in his 1985 book *Commodities and Capabilities*, explains the capability to function as “what a person can do or can be” (SEN, 1985; p.1). In other words, a capability allows the person to use commodities (e.g. income) in such a way that is meaningful for that person. The author expresses very clearly his opposition to what he calls the “opulence” approach, where real income is the focus in order to measure human development.

The NSRT and the UNDP met in Istanbul in 1985 in a key session where the group finally embraced the concept of human development, analyzed its meaning and acknowledged it as both a means and end of development. The result of this session was the 1986 book *Human Development: The Neglected Dimension*. The authors admit that the financial crisis of those years was the breakpoint for understanding that human development is both an input and an output of development. The authors emphasize that “the objective of development is people, and people must be the center of all concerns”, and that “the human dimension of development is the only dimension of intrinsic worth” (HAQ; KIRDAR, 1986: p.1,2). The vastness of the concept of human development was first understood and it became clear that it is multidimensional. As such, the group operationalized it into four areas: “education and training, nutrition and health, the role of women, and new technologies” (HAQ; KIRDAR, 1986: p.2). This was a necessary discussion and a breakthrough since the group raised questions about the need for a formal definition of human development and how it could be measured. Furthermore, it became evident the necessity of a profound redirection of worldwide policies aimed at the improvement of the human dimension of development, along with the needed effort for the worldwide spread of the notion of human development.

The same book offers a wider multidimensional definition, stating that this human dimension:

[...] is about whether children live or die; whether people eat well, are malnourished or starve; whether women lead healthy and tolerable lives or are burdened with annual childbearing, the high risk of maternal mortality, and the certainty of lifelong drudgery; whether humans control their lives at work or are "details" of the machinery [...]; whether people have access to work at all; whether people control their political lives or are subject to arbitrary decisions taken by others, with the possible removal of their liberty and even their lives for political reasons; whether their education is sufficient to permit men, women and children to participate in the world

around them as full members of society with some control over their destinies, rather than as victims in a world where to be uneducated is akin to being blind, and where schooling is a universal passport (STEWART, 1986; p.28).

However, when analyzing the performance of different countries on human welfare, the authors ends up focusing on income per capita, life expectancy and infant mortality, which is a more similar measurement to the one that would later be used for the HDI. On the other hand, in 1987, the NSRT together with the UNDP Development Study Program, outlined several policy suggestions having in mind people as the means and end of development. Some of these suggestions included that national and international policy making should be human-centered, primary education should be universal by the year 2000, new measures for human development should be established, women should be fully integrated in the development goals, new technologies should serve human development, and that international cooperation towards human development should be greater (NSRT, 1987).

Even though Amartya Sen did not participate in the NSRT sessions, an agreement between the basic needs approach and Sen's capabilities approach eventually happened in the late 1980s (HIRAI, 2017). Indeed, as Hirai explains, the Committee for Development Planning (CDP)²⁴ held discussions about development in 1988 and invited Amartya Sen, who addressed development from the capabilities approach, more specifically, as an expansion of people's capabilities. The author argued that the capabilities approach represents the freedom a person has to achieve functionings in life (SEN, 1988). Here Sen begins to see the role of freedom in human development, seeing it as a means to achievement.

Furthermore, Amartya Sen argued that the basic needs approach had been formulated in terms of commodity possession instead of functioning achievements. The author goes on to state that "the value of the living standard lies in the living, and not in the possessing of commodities" and this is why the basic needs approach needed the

²⁴ The CDP (Committee for Development Policy after 1998), established in 1965 by the United Nations Economic and Social Council (ECOSOC). The Committee provides independent expert advice to ECOSOC on development issues and international cooperation for development. It has 24 members nominated by the UN Secretary General for a three-year-term (CDP, 2017). Available on https://www.un.org/development/desa/dpad/document_cdp/cdp-report/ Last visited June 19th 2017.

support from the capabilities approach (SEN; HAWTHORN, 1989; p.25). The author also identified some important indicators that could shed some light when analyzing the standard of life. The first of them was the GNP, in spite of much criticism. However, the author explains that other indicators such as life expectancy, literacy rate and gender bias measures could help have a better picture of the standard of living instead of the GNP only (SEN; HAWTHORN, 1989).

The capabilities approach was officially embraced by the NSRT in 1988, when human development is finally seen as a process of expanding the capacities and capabilities of people, recognizing that this approach had the merit of placing human capacities “at the center of the stage, where they always should have been” (NSRT, 1988; p.4). What was new about this capabilities approach compared to previous approaches is the fact that the capabilities approach requires a bottom-up planning and the wide participation of all members of society (HIRAI, 2017). Specific areas of human development were also mentioned in the report, such as employment, education, health, nutrition, and women’s rights (HAQ; KIRDAR, 1988). In 1989, the NSRT analyzed the participation of the population in the development policy making, arguing that human development must be from the bottom-up. The authors identified five elements of human development: education, health and nutrition, environment, employment, and political and economic freedom (DRAPER, 1989). The NSRT further recommended to establish an “ad hoc high-level [...] Council on Human Development within the U.N. system” (HAQ; KIRDAR, 1989; p.17). Eventually, it was the already existing UNDP the one that took the responsibility of overseeing human development policies, assessing the results of these policies and the annual publication of the annual Human Development Report, along the Human Development Index, as explained later.

The understanding of the concept of human development has gone through several changes, as evidenced by the literature during the 1980s. The most important of these changes go from the basic needs approach to human resource development, and from there to the human dimension, and finally to human development understood through the capabilities approach. By 1990, the concept of human development had already become the leading trend in policy making towards development and the UNDP

published the first annual Human Development Report (HDR), where all the development theory so far, ideas for measurement, and proposed policies would come down to a single index, the Human Development Index (HDI). The first HDR of 1990 defined human development as “a process of enlarging people’s choices. The most critical of these wide-ranging choices are to live a long and healthy life, to be educated and to have access to resources needed for a decent standard of living” (UNDP, 1990; p.1).

In this sense, in order to build the HDI, indicators such as life expectancy at birth, literacy and purchasing-power-adjusted GDP per capita were used. These indicators were understood to be a means through which the person can enlarge her/his choices. It is evident that the first HDR is outlined according to Amartya Sen’s capabilities approach, as he was one of the main advisors. The report recognizes, additionally, that the HDI leaves out of the measure other important choices that people might consider important, such as social and political freedom, protection against violence, etc. The justification for this is that more indicators would complicate the basic picture of human development that they intend to give (UNDP, 1990).

Sen acknowledges his skepticism about adopting a single “crude” measure that would assess the complexity of such a concept, which was a characteristic of utilitarianism that he criticized so much (See SEN, 2000b). However, Mahbub ul Haq convinced Sen of adopting a single measure that would be more sensitive to the social aspects of human lives, contrary to the GNP. In addition, the HDI would also serve “to broaden public interest” in other features of human development that would be addressed by the annual reports (UNDP, 1999). One of the reasons why the HDI has been so successful (contrary to earlier and rival measures) was the pluralist lens through which development was evaluated. Sen recognized that such a measure had been needed for decades, where so much theory was at times “frustrating” (SEN, 2000). Another reason for the success of the HDI was the fact that it has been highly institutionalized. As Hirai (2017) explains, for a measure of development to survive and attract the world wide attention, as the HDI has, it needs to be framed and supported by very powerful organizations. The UNDP, the NSRT, and renowned authors gave the HDI all it needed to survive and to be the strongest alternative to purely economic measures of well-being.

Additionally, the HDI holds the advantage of showing the evolution of the human development of a certain country over a certain period of time, and it allows comparisons among countries (PANIGRAHI; SIVRAMKRISHNA, 2002).

Nevertheless, the HDI has also been widely criticized due to its conceptual weakness and empirics, measurement errors, poor quality of data, choice of indicators, choice and weighting of dimensions, changes in the formula used over the years, incorrect specifications of data, and redundancy (HOPKINS, 1991; KELLEY, 1991; ATURUPANE; GLEWWE; ISENMAN, 1994; OGWANG, 1994; SRINIVASAN, 1994; BISWAS; CALIENDO, 2002; HIRAI, 2017). Another important point of criticism for the HDI has been that of ideology and politics. It has been claimed, for example, that the components chosen to construct the HDI are aimed at better ranking those countries where non-economic indicators are better. This would provide the UNDP with a justification for the programs and projects sponsored by them. Another explanation for the construction of the HDI is that the UNDP wanted to differentiate itself from the World Bank with respect to its activities and proposed policies (MCGILLIVRAY; NOORBAKSH, 2007).

On table 2, the evolution of the HDI is shown. There have been some changes in the indicators used, the formula for the calculations (in response of criticism) and the additional factors that each report brings. All this has been according to what the UNDP has considered important at certain points in time.

Table 2 - Evolution of the Human Development Index

Year	Indicators Used	Additional factors for analysis
1990	Arithmetic mean = (Life expectancy) / (adult literacy) / (log of real GDP per capita)	<ul style="list-style-type: none"> • Female and male HDI
1991	Arithmetic mean = (Life expectancy) / (adult literacy + mean years of schooling) / (adjusted real GDP per capita)	<ul style="list-style-type: none"> • Human freedom index • Gender sensitive HDI • Income distribution adjusted HDI
1992	Arithmetic mean = (Life expectancy) / (adult literacy + mean years of schooling) / (adjusted real GDP per capita)	<ul style="list-style-type: none"> • Political freedom

1993	Arithmetic mean = (Life expectancy) / (adult literacy + mean years of schooling) / (adjusted real GDP per capita)	<ul style="list-style-type: none"> • Participation and governance • Gender disparity adjusted HDI
1994	Arithmetic mean = (Life expectancy) / (adult literacy + mean years of schooling) / (real GDP per capita in PPP\$)	<ul style="list-style-type: none"> • Human security
1995	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	<ul style="list-style-type: none"> • Gender related development index
1996	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	
1997	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	<ul style="list-style-type: none"> • Human poverty index
1998	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	<ul style="list-style-type: none"> • Gender empowerment measure
1999	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	<ul style="list-style-type: none"> • Globalization
2000	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	<ul style="list-style-type: none"> • Human rights • Human freedoms • Democracy • Energy and environment
2001	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	<ul style="list-style-type: none"> • Refugees • Technology achievement index • Millennium Declaration Goals
2002	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	<ul style="list-style-type: none"> • Millennium Development Goals
2003	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	
2004	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	<ul style="list-style-type: none"> • Cultural liberty and diversity
2005	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	<ul style="list-style-type: none"> • International cooperation and trade • Inequality • Violent conflict
2006	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	<ul style="list-style-type: none"> • Water crisis

2007-2008	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	• Climate change
2009	Arithmetic mean = (Life expectancy) / (adult literacy + primary, secondary and tertiary enrolment ratio) / (real GDP per capita in PPP\$)	• Human mobility
2010	Geometric mean = (Life expectancy) / (mean years of schooling + expected years of schooling) / (GNI per capita constant 2005 PPP\$)	• Inequality adjusted HDI
2011	Geometric mean = (Life expectancy) / (mean years of schooling + expected years of schooling) / (GNI per capita constant 2005 PPP\$)	
2012	---	---
2013	Geometric mean = (Life expectancy) / (mean years of schooling + expected years of schooling) / (GNI per capita constant 2005 PPP\$)	• Global South
2014	Geometric mean = (Life expectancy) / (mean years of schooling + expected years of schooling) / (GNI per capita constant 2005 PPP\$)	• Vulnerability
2015	Geometric mean = (Life expectancy) / (mean years of schooling + expected years of schooling) / (GNI per capita constant 2005 PPP\$)	• Work and employment

Source: Elaborated by the author, based on the Human Development Reports 1990-2015. UNDP.

In the 2000s, the concept of human development was still in discussion. Sen's work in *Development as Freedom* shows an important addition to the debate: freedom. Here, the author argues that development enables the removal of what he calls "unfreedoms", which are the causes of people having few choices and opportunities of performing their everyday activities. In other words, for Sen, development means to expand people's freedoms so that they can achieve those things they really value. It means to expand people's freedoms which can be economic (freedom from starvation), political (political participation and freedom of speech), and social (freedom from illiteracy, from escapable morbidity, and premature mortality), and they strongly require the intervention of the national institutions in order to regulate such structures (SEN, 1999a). Another concept later introduced by Sen was that of the "conversion factors" which make a difference between the access to the available resources and the achievement of functionings. In other words, each person would choose what to do and what to be given the freedoms available to her (KREMAKOVA, 2013). For example, if a person has

physical disabilities, she will not be able to use a bicycle in order to achieve the functioning of mobility. Conversion factors can also be social (public policies, social norms, gender roles, societal hierarchies) and environmental (climate, geography). In this sense, if a woman possesses a car but society establishes a social norm that dictates that she cannot drive, she will not be able to convert the use of the car into the functioning of mobility. Therefore, it becomes of importance to know the conditions in which people live in (ROBEYNS, 2005).

However, Sen has been very cautious as to not reducing his analysis to a list of indicators to be measured, which makes the operationalization of the concept difficult. Martha Nussbaum, on the other hand, proposed a division of capabilities that are reduced to life; bodily health; bodily integrity; senses, imagination and thought; emotions; practical reason; (social and personal) affiliation; (concern for) other species; play; and control over one's (political and material) environment (NUSSBAUM, 2000; p.78). Some authors, such as Haq and Nussbaum, argue that having a list of capabilities facilitates the empirical work, especially when it comes to having a concrete aspect to look at in order to make human development policies, for example (NUSSBAUM, 2000) . On the other hand, other authors such as Sen himself and Kremakova argue that human development should never be limited to a specific list given that a person's freedom to choose her being or doing can vary at different points in time (KREMAKOVA, 2013). This research's methodological approach is better explained in chapter 6. However, given the need for conceptual delimitation to which this research is constrained, some specific points of the human development are examined.

The evolution of the concept of human development can be better summarized on Table 3, where such evolution is seen from the institutionalization's point of view.

Table 3 - Evolution of the concept of Human Development

Period	Institution	Concept
1970s	United Nations. ILO	Improvement in human resources. Top-down approach
Early 1980s	World Bank	Poverty reduction. Top-down approach
Through 1980s	UNDP + NSRT	Improvement in human capital and human resource building. Top-down approach
Late 1980s	CDP	Expansion of human capabilities. Bottom-up approach
1990s onwards	UNDP	Expansion of people's choices, capabilities and substantive freedoms. Bottom-up approach

Source: Adapted by the author based on HIRAI (2017). *The Creation of the Human Development Approach*.

The authors discussed above provide an opportunity to assess the debate over development beyond the economy, considering the human agency and its capabilities and freedoms. In this sense, the capabilities and freedoms approach has been useful for assessing policies aimed at preventing or reducing deprivation and hunger, as Gasper (2000) discusses. This is why even though the capabilities approach has faced criticism, it remains useful for the understanding of human development and it remains open for further construction. For example, some authors have criticized Sen's approach for having some internal epistemological contradictions, for being overly normative and evaluative, for being too vague and insufficiently explanatory as well as hard to operationalize (ROBEYNS, 2003, 2007; ZIMMERMANN, 2006; SAYER, 2012). In response, Sen published his book *The Idea of Justice* where he responds to this criticism and develops a more complete theory of social justice, in which he includes both capability and human rights at the center of his theory of justice, which he had already discussed in previous work (SEN, 2005). In addition, the author includes public deliberation as a central aspect for judgements related to justice and argues that capabilities is both a means for evaluating justice and a tool for the achievement of democracy and ethical reasoning (SEN, 2011b; KREMAKOVA, 2013).

Streeten has also encouraged the development of original ideas and the exploration of new areas regarding the study of human development (STREETEN, 2000). Jolly (2002) also follows this path by suggesting statisticians to focus on the operationalization of areas of social and human interest, such as human rights, poverty reduction, human development, and globalization. Foster et.al. (2005) propose new measures that take inequality into account and apply it to Mexico. On the other hand, Chatterjee (2005) also provides an alternative measurement of human development that takes into consideration the distributional aspects of human development in the rural and urban sectors in India. Ranis *et.al.* (2006) go even further away by proposing 11 categories for the evaluation of human development with over 30 indicators that the authors consider to give a better evaluation of the concept. Ortega (2010) also proposed a new index by country of birth as an alternative to the HDI, which is by country of residence. Others also proposed new indexes (HARTTGEN; KLASSEN, 2011; HERRERO; MARTÍNEZ; VILLAR, 2012).

From this, it becomes evident that the concept of human development is still under scrutiny and it is open for more debate and contributions. This open debate is still lacking a thorough approach of the role of international migration in the process of human development. I do not attempt to re-conceptualize human development. Instead, the purpose here is try to understand it as much as possible in order to assess its changes under an international migration scenario. From the migration point of view, all the unfreedoms mentioned by Sen are many times the causes of migration itself, given that when not having the necessary means for expanding their freedoms, many people look for them abroad. Furthermore, through the lens of the capabilities approach, the author of this thesis sees the freedom of migrating as an entitlement that enables a person to acquire or improve the capability of having access to a decent standard of life, to a better education, and to have more access to a long healthy life.

4. MIGRATION THEORY AND DEVELOPMENT

“Memorizing and regurgitating are not science.

Real science is a constant investigation of the unknown.”

Abhijit Naskar

In general, there are structural factors that contribute to migration. The first one is known as push factors, which initiate in the sending country, such as low wages, low employment rates, few investment opportunities, low access to credits, authoritarian or corrupt governments, violent conflicts, and natural disasters. Sen would refer to these factors as unfreedoms. All these factors can be observed in Latin America along the timeline chosen, and some of these factors are considered to be the primary factors that lead people to migrate. The second set of structural factors are pull factors, which are features in the receiving country, such as the availability of economic opportunities, safety and a fair government (MASSEY, 2005; ROSENBLUM; BRICK, 2011). The United States particularly offers these options that are very attractive to migrants.

Usually, even though migrants receive a lower wage compared to the U.S. citizens, it is still attractive compared to an even lower wage received back home or to unemployment. Safety is also a very important factor for migration nowadays (VENTURA, 2016), especially for those countries in the Central American North Triangle, which are amongst the most dangerous countries in the world. People from these countries are currently looking for refuge and safety in the United States. Finally, the third factor that contributes to migration are the diasporas in the receiving countries. These diasporas connect the new immigrants to jobs and communities of fellow immigrants from the same countries. These diasporas are also important as they transmit vital information for those people who plan to migrate (MASSEY, 2005; ROSENBLUM; BRICK, 2011). There is no general international migration theory. Instead, there are several theories: neoclassical economic theory, historical-structuralist theory, dual labor market theory, relative deprivation theory, world systems theory, network theory, institutional theory, and the new economics of labor migration (JENNISSEN, 2007). In addition, Massey et al.

(1993), Massey (2005), School (1995), and PORTES (2009) categorize international migration into theoretical approaches explaining the initiation of migration and approaches explaining the continuation of migration. That is, why does migration begin and why does migration continues, even when the factors that triggered it are no longer an issue.

On the other hand, it should be pointed out that the debate on the relationship between migration and development has suffered shifts since its beginning (See Table 4). It first was viewed from an optimistic point of view in the 1950a and 1960s, and it then shifted to a pessimistic one during the 1970s and 1980s. It then switched again to an optimistic point of view in the 1990s and 2000s as the effects of diasporas and remittances began to be studied (JENNISSEN, 2007; DE HAAS, 2010).

Table 4 - Main Phases in Post-WWII Research on Migration and Development

<i>Period</i>	<i>Research community</i>	<i>Policy field</i>
<i>Until 1973</i>	Development and migration optimism	Developmentalist views; capital and knowledge transfers by migrants would help developing countries in development take-off. Development strongly linked to return migration.
<i>1973 - 1990</i>	Development and migration pessimism (dependency, brain drain)	Growing skepticism; concerns on brain drain; after experiments with return migration policies focused on integration in receiving countries. Migration largely out of sight in development field, tightening of immigration policies.
<i>1990-2001</i>	Readjustment to more subtle views under influence of empirical work (NELM, livelihood approaches, transnationalism)	Persistent skepticism mixed with some optimism, recognizing the heterogeneity of migration impacts; further tightening of immigration policies.
<i>>2001</i>	Boom in research, in particular on remittances. Generally positive views. De-linking a little Development with return migration	Resurgence of migration and development optimism under the influence of the remittance boom, and a sudden turnaround of views; remittances, brain gain, diaspora involvement as vital development tools. Development contribution of migration often framed within renewed hopes put on circular and return migration

Source: Adapted from (DE HAAS, 2010)

This debate on migration and development has also evolved away from the general theory on migration giving more attention to migrant receiving countries and not

enough attention to the impacts on development in the sending countries and the heterogeneity of these effects (DE HAAS, 2010). The mainstream migration theories are briefly explained and afterwards, the leading theory of this work is addressed.

According to the neoclassical economic theory, wage differences between regions are the main reason for labor migration. The migrant is seen as a utility maximizer who evaluates his/her options and chooses the country of destination that best maximizes his/her well-being. Labor is seen as a scarce factor that can be reallocated internationally. The differences in wages that are caused by geographic differences in labor demand and labor supply cause labor force to move from low-wage to high-wage countries. The theory assumes that without wage differentials, migration would not occur and that labor markets (and no other markets) induce labor flows (BORJAS, 1989; MASSEY et al., 1993; MASSEY, 2005). Migration is perceived as an optimal allocation of production factors that benefits sending and receiving societies creating a balanced growth. This is why the reallocation of labor through migration from the rural to the urban areas is considered very important for development (TODARO, 1969). Migration would make these wage differentials disappear, and then, migration itself would stop as well (MASSEY et al., 1999). And it is this way that development happens in the neoclassical theory. One of the problems with this theory is that there is no space for remittances flowing to the sending countries, given that the possibility of gain for non-migrants is left out (TAYLOR, 1999). Another issue with this theory is that migrants are seen as pure utility maximizing agents and other incentives for migration are not considered (DE HAAS, 2010).

There was a shift on the analysis of migration towards the late 1960s. The historical-structuralist theory during these years viewed migration as an exit from the misery that capitalism had caused, but instead of solving the conditions that led to migration in the first place, it only helps to worsen those conditions and increase the inequalities between the receiving and the sending countries (DE HAAS, 2010). Reichert (1981) named this the “migrant syndrome” explaining that underdevelopment causes migration, which in turn causes more underdevelopment, which in turn causes more migration (REICHERT, 1981; DE HAAS, 2010). Furthermore, from this point of view, the

inequality exacerbated by migration would not be only among countries, but also among the same segments of the population of one given country. For example, those who migrated did so because they reached a certain point where they had enough money to make the journey, and then began sending remittances, improving the lives of those left behind. But among the least fortunate, many do not have enough money to migrate, and therefore, stay behind in every sense compared to the migrant sending family, deepening inequality even among the same segments of the population (LIPTON, 1980). Additionally, remittances began to be studied and were blamed for fueling consumption and inflation in the sending countries, given that most of remittances were not invested in production (LEWIS, 1986; DE HAAS, 2010). Another point is that remittances could also be invested in migration of other members of the family, incentivizing this way some additional migration (VAN DALEN; GROENEWOLD; FOKKEMA, 2005), and in some cases, triggering a culture of migration (MASSEY et al., 1993).

Brain drain began to appear in the debate, and it was viewed as one of the worst outcomes of migration, given that the sending countries would not be able to control the emigration of their most educated people (PAPADEMETRIOU, 1985). During these years, another term emerged: the “brawn drain”, which is the emigration of young and strong men from rural areas who constitute a great part of the labor force of the rural areas causing the decline in agriculture production (PENNINX, 1982; LEWIS, 1986).

Empirical research from the 1980s and 1990s found that the impacts of migration on development are heterogeneous and that these impacts can be positive under favorable economic and political conditions (MASSEY et al., 1999; DE HAAS, 2010). For example, the dual labor market theory holds that the labor market is divided into a primary and a secondary segment. The first one is capital-intensive and is where high-skilled workers are concentrated, while the second one is labor intensive and concentrates low-skilled workers. This theory suggests that international migration is caused typically by pull factors in the developed countries and assumes that migration is a consequence of labor demands in the labor-intensive segment of modern industrial societies. In other words, this theory views migration as a key requirement of modern industrial economies in order to keep up with their production levels (MASSEY et al., 1993), arguing that

developed nations permanently demand immigrant labor. Migration is seen as beneficial for both interested parts: developed societies fill their need for cheap labor while immigrants are able to increase their income and diversify risk.

Network theory, on the other hand, argues that the large amounts of migrants might form migrant networks creating interpersonal linkages between the migrant and his/her destination country. These networks are determinants of migration as they assist with financial help for the journey, facilitating jobs, accommodation and information about the receiving country, reducing the potential costs and risks of migration (ESVELDT et al., 1995; JENNISSEN, 2007; EPSTEIN; ODELIA, 2016). This theory defines migrant networks as interpersonal links that connect migrants, former migrants and non-migrants in both sending and destination countries (MASSEY et al., 1993). Institutional theory, on the other hand, holds that migration can become institutionalized when it occurs in a large scale, creating nonprofit organizations or private institutions that both help and give assistance to other immigrants, or profiting from it by motivating more migration. As the movement of people becomes more and more institutionalized, it becomes independent of the factors that originally created it (MASSEY et al., 1993). Relative deprivation theory holds that the motivation to migrate will be higher in societies that experience high economic inequality. Members in the sending countries are aware of the income differences between them and other households in their reference group. This will encourage them to intend to achieve an equilibrium by choosing the family member who is more likely to provide net income gains (STARK; TAYLOR, 1989).

In addition, world systems theory sees migration as a natural outcome of capitalism, globalization and international trade and that recurrent migration is more likely between past colonial powers and their former colonies. It argues that interaction between societies, such as trade is a very important determinant. Trade between strong and weak economies will harm the weak economy causing stagnation, which translates into lagging living conditions increasing the incentive for migration (AMANKWAA, 1995). Furthermore, the same capitalist economic processes that help construct the determinants of migration in the sending countries are the same as those that attract migrants to the developed countries. Globalization facilitates the movement of production

factors for the convenience of international business, including labor migration, by reducing the costs of movement. This same globalization implies that the world economy is managed from a few cities where high-skilled labor, banking, finance, administration and technology production is concentrated. This dynamics creates a demand for both, high-skilled and low-skilled labor, with little demand in the middle, becoming a migration determinant (MASSEY et al., 1993). This would be the case of the United States, according to the world systems theory.

The international migration systems approach holds that an international migration system consists of a group of receiving countries that are connected to a set of sending countries by intensive flows and counter flows of goods, capital and people. An international migration system has a spatial and a time dimension where countries form the spatial dimension and changes in the linkages between countries form the time dimension. The determinants of migration have to do with the economy, the society, the policies adopted by governments and linkages (history, culture, colonies and technology) between sending and receiving countries (KRITZ; ZLOTNIK, 1992).

From the international political economy perspective, Peters (2014) argues that the increasing integration of world markets has determined the changes in immigration policy making in the United States after 1950. The author states that low-skilled immigration policy is motivated in a great manner by the need of the economy of this kind of labor, which is also affected by trade policies adopted by the receiving country and the ability that private firms have to move their production to other countries. In essence, the author argues that trade openness and an increasing company mobility to other countries lead to restricting policies on migration because of the effects these two factors have on companies in the receiving countries (PETERS, 2014). Following this line of thought, when a low-skilled labor scarce country closes up to trade or when companies in that country are not able to move abroad, low-skilled-intensive production increases, as well as the wages, and this leads companies to lobby for liberalization of immigration policy. On the other hand, trade openness is associated with a decrease in the low-skilled labor-intensive production, to be more productive, and to decrease the need for labor as they are expected to move overseas or close. Because of this, companies would not lobby for

immigration policy and immigration policy is expected to be restrictive (PETERS, 2014, 2017).

It becomes difficult to criticize all these theories, as one of the main criticisms that can be done has to do with the fact that none of these theories are applicable to the whole process of migration. These theories analyze diverse causal mechanisms at various levels: individual, household, local, national and international. And as such, it becomes difficult for all of them to overlap. Some of these theories predict positive effects of migration on economic and human development, while others predict none or negative outcomes. However, as De Haas (2010) argues, in reality none of these theories can be taken as the whole truth because the migration – development relationships are so heterogeneous that it is very difficult to fit them all in one theoretical model only.

This is why, in an attempt to explain as much as possible, this research is based on the new economics of labor migration theory, which first appears over the 1980s and 1990s, and which gives some options for the analysis of the heterogeneous relationship between migration and development in general. This theory challenges the classical economic theory arguing that households must be taken into account in the decision to become a migrant, instead of taking each individual as a utility maximizer. That is, the decision of becoming a migrant is not an individual decision, but rather a collective decision. It is usually a family negotiation. For example, when material assets are scarce, one exit is the reallocation of family resources, like labor, in order to decrease income risks (STARK; LEVHARI, 1982). That is, some members of the family might be assigned local economic duties while other members of the household are assigned international duties, becoming migrants. Once established in their new country, they will send remittances and ease the situation back home (STARK, 1978; MASSEY et al., 1993; TAYLOR, 1999; TAYLOR; DYER, 2009).

From this point of view, a wage differential can be a determinant of labor migration, but it is not the main reason, given the fact that in order to minimize risks, families will also diversify through migration. In this sense, migration and local production might work together as complementary activities, that is, migration returns are invested in local production and eventually lead to more migration as a means of resource diversity. This

means that economic development might not stop migration. On the contrary, following this line of thought, migration would impact positively the macroeconomic development in the sending countries which would cause more migration (MASSEY et al., 1993; JENNISSEN, 2007). This theory considers the difficulty of many families in the developing countries to access to the capital and insurance markets, and families see migration as a way out of these constraints through remittances (absent in the neoclassical theory), and thus gives them the opportunity to insert themselves in the productive life of the sending countries (STARK; LEVHARI, 1982; TAYLOR, 1999). Additionally, Bebbington (1999) argued that households deliberately choose migration as a means or strategy to improve their livelihoods and enable investment, as well as the acquisition of more assets that will protect against future possible shocks to the economy.

This theory also implies that this impact on development does not depend entirely on return migration, given that even permanent diaspora and their descendants can still contribute to the development of the sending countries through financial, social, and political remittances (DE HAAS, 2010). Taylor (1999) criticized previous research that found negative impacts of migration on development because they consisted mainly of non-comparative uses of remittances that did not take into account the exchangeability of income, as well as the indirect impacts of migration that can extend to the whole community. Accordingly, the new economics of labor migration theory points that households are part of larger groups, like communities or countries, this is why households related to emigrants transmit the impacts of emigration through market interactions even to households that are not related to emigrants and do not receive remittances directly. And because migration is a self-perpetuating process (MASSEY, 2005) the sending countries many times specialize in migration and are owners of a huge labor force that they can export given the fact that for them, this would be the abundant factor of production. These huge migrant diasporas work not only in the receiving country but also in the sending country through different interactions (TAYLOR, 1999).

One of the critics for this theory is that it assumes that households are entirely altruistic in the sense that one or more members are willing to sacrifice themselves by migrating in order to enhance the benefits for the whole group. But in doing so, inner

inequalities tend to be forgotten, such as age and gender, as well as the possibility of forced migration inside some households, that is, migrating without the consent of some members of the family (CARLING, 2005). Another criticism is that there tends to be a focus on labor migration, leaving out all the other motivations that migrants have for migrating as well as the different consequences of this. In this sense, De Haas (2010) suggests to remove the “L” from the concept in order to give space to the whole range of possibilities and motivations that migrants might have, and stay with the term New Economics of Migration. I agree with De Haas’ proposition and adopts the term New Economics of Migration. In doing so, this research would also give some room for the possibility that migration might not be such a coldly calculated risk by the households. Additionally, it would help to go beyond economic explanations narrowly focused on labor migration by analyzing the migration process within a broader framework of human development opportunities instead of income variances only.

This way, I try to analyze the process from the household until it becomes an international feature. It then analyzes the effects of this process at the national and regional level of the sending countries in Latin America regarding their human development, understanding the latter from a capabilities perspective as proposed by Sen (1999a). Furthermore, given that both the New Economics of Migration and the capabilities approach usually focus on macroeconomic variables, this research explores the relationship between migration and human development at the macro level. Nevertheless, having in mind that the macro level sometimes lacks proper data, micro level data are also analyzed in chapter 7 in an attempt to analyze this relationship at a much deeper manner.

4.1. The Relationship between Migration and Human Development

One of the biggest difficulties when studying the relationship between migration and human development is that it is an endogenous relationship. For example, the political, economic and social structures at the national level can affect both, the intentions and opportunities of migrating, and the local level of human development. On the one hand, the national level of human development can affect the intentions and

opportunities of migrating through various mechanisms such as immigration policies and labor demand, which will be essential in determining who emigrates (selectivity), when, and how many people will emigrate at a certain year. On the other hand, the national level of human development can also affect the local level of human development through mechanisms such as public policies, market access, employment, social protection, and human development programs (DE HAAS, 2010; NAYYAR, 2012). The local level of human development is also expected to affect the intention and opportunities of emigrating, depending on how well it provides a decent standard of living for the citizens as well as a proper access to health and education. That is, as long as people are able to expand their capabilities at home such as education, health, and a decent standard of life, they are expected to choose to stay home. However, when those life choices are limited, citizens are expected to diversify their risks and choose emigration (DE HAAS, 2010; STANLEY, 2010). For this, two elements are required. The first one is the intention to migrate, and the second one is the sufficient financial resources for the journey.

Migration also affects the local level of human development through its heterogeneous ramifications, such as financial, social, and political remittances, resulting in a modified local level of human development, which in turn will affect the intention and opportunities of emigrating, and so on. Additionally, migration, through its effects on the local level of human development, will eventually affect the national level of human development, as predicted by the New Economics of Migration theory. And this is true not only for the least developed countries but also for the most developed ones (NAYYAR, 2012). In this sense, having adopted human development as the process of expanding people's capabilities, (DE HAAS; RODRÍGUEZ, 2010) consider migration as part of human development. First of all, a person will migrate only if he/she has the capability to decide where to live, therefore achieving the functioning of migrating. On the other hand, the authors argue that migration can help people to improve certain capabilities such as their health, earning capacity, education, and freedom. In this sense, precisely because people have agency, migration can affect structural change, and therefore, migration can affect human development by changing social and economic situations in the sending and receiving countries. However, the way in which migrants contribute is very often

limited by the restrictions to migration and migration policies that do not protect the migrant's rights, adversely affecting the migrant's capabilities and reducing the benefits of migration. (DE HAAS; RODRÍGUEZ, 2010).

The UNDP (1999) has identified that, regarding world migration, migrants usually move from countries with lower human development to countries with a higher human development. This suggests that people usually seek better opportunities than those they have at home. On the other hand, Ustubici and Irdam (2012) found a medium-run positive relationship between remittances and human development in countries with middle income and in those countries where the state's view on migration is more labor-export-oriented. Hence, it can be seen that the relationship between migration and human development, understood in a broad way, is rather complex. However, the magnitude of the influence that migration could have on the regional and national human development will depend mainly on the context of the human development at the national level, which will require proper social, political, and institutional structures rather than migration alone.

Previous research has revealed how migration contributes to the human development in India, bringing improvement to the living standards, and an increase in the access to food, clothing, education, and better healthcare in some of the least developed migrant sending states in India. The authors describe how in western India, migration wages made more than 86 percent of the income for the migrant sending households, while in southern India, this income reached up to 70 percent. This income is used, most of the times, for leasing land, buying livestock, upgrade their houses and new businesses. However, the authors also recognize that migrants suffer many threats to their lives, and those left behind also face loneliness and increased work burdens (DESHINGKAR; AKTER, 2009). Ortega (2010) also found that people from the least developed countries are the ones who benefit most from migration, in terms of reduction of inequality. Furthermore, research has also revealed that high-skilled emigration is correlated with the level of human capital formation in low income countries (STARK; WANG, 2002; DOCQUIER; RAPOPORT, 2007).

Deshingkar and Akter (2009) describe, for example, how historically disadvantaged groups, such as the lower castes and tribes, have expressed that

exercising their exit through migrating and working outside their hometowns have expanded their capabilities. The authors also explain how migration has provoked a shift in social and power relations because migration has helped improve education and lower dependencies on the local government.

On the negative side, research has also linked the international migration of high-skilled personnel and the low availability of psychiatrists in low and middle income countries (JENKINS et al., 2010). Stanley (2010) also reports, in his study of emigration in Honduras, that education and housing quality improved as a consequence of emigration, but it exacerbated gender divisions. Portes (2009), on the other hand, considers migration to be both a symptom and a cause of underdevelopment because migration sometimes depopulates many regions, makes the governments of the sending countries rely too much on remittances, escaping their obligations, and stops production because people now receive the money without working, perpetuating poverty and underdevelopment.

As mentioned in Chapter 3, from the migration point of view, all the unfreedoms mentioned by Sen are many times the causes of migration itself. In other words, when people do not have the necessary means for expanding their freedoms at home, many people look for them abroad. Furthermore, through the lens of Sen's capabilities approach, this thesis' main argument is that the freedom of migrating is an entitlement that enables a person to expand their freedoms and the freedoms of the families in the sending countries. Freedom of migrating in this approach is of utmost importance. For example, a person who has the freedom to migrate is able to acquire or improve the capabilities that his/her family back home has of having access to a decent standard of life, to a better education, and to have more access to a long healthy life.

The possible causal mechanisms for this dynamics are explained in more detail in Chapter 5. Nevertheless, it can be outlined here that the first mechanism is through the migrants exercising their freedom to migrate, and which would necessitate a government response. The second mechanism entails the forces of supply and demand of the labor markets, and the third mechanism involves the freedom to migrate translated into the

expansion of capabilities in the sending countries. Yet again, these mechanisms are considered by this research as possible causal mechanisms and are tested in Chapter 8.

5. HYPOTHESES AND CAUSAL MECHANISMS

“It is a good morning exercise for a research scientist to discard a pet hypothesis every day before breakfast. It keeps him young”.

(Konrad Lorenz)

5.1. Migration as exit

Hirschman (1970) examines the importance of the exit option in order to explain regime survival and transition. Explained simply, the author poses that people can voice their discontent through protest against the system or exit the system. Hirschman describes exit as the act of a person abandoning a company, an organization or a state, given this person's dissatisfaction with such an institution. On the other hand, if people chose to voice their discontent, they should mobilize collectively and they are to remain in the system, enjoying its benefits and suffering its flaws. Hirschman also assumes that the institution will face revenue losses due to the exit of its clients. When comparing voice and exit, the author considers exit to be an essentially economic artifact, while considering voice to be a political one (HIRSCHMAN, 1970).

Johnston (2011), on the other hand, provides an even broader point of view by applying Hirschman's theory to international migration, analyzing how the poor can have effective exit options through migration and remittances in authoritarian regimes, providing citizens with a tool to express government disapproval. Additionally, Bitetty (2017) provided evidence that points to the European citizens exercising the exit option in the European Union as a response to the economic crisis. Furthermore, Hall (2016) analyses 157 countries from 1980 to 2013 and found that exitability (the ability that citizens have to “vote with their feet”) is positively correlated with the change in economic freedom. From this, it can be said that the exit option can be exercised across all types of regimes, albeit with different degrees of difficulty.

According to Johnston (2011), remittances and migration represent influence from the population given the fact that these features are seen as independence and empowerment of the people. Remittances help people enhance their independence from

the government because they do not depend anymore on the clientelistic policies; neither they depend on the government providing health or education for them in exchange of political favors, such as their vote. This makes people feel empowered reducing their loyalty towards the government and, given their new power of influence and independence, they are expected to voice their political preferences more freely and increase their demands towards the government (DOYLE, 2015; CARNEIRO; FIGUEROA, 2016). Indeed, Johnston (2011) views elections as an instrument of voice given the general expectation in democracies that votes will translate into policy. Survey data from LAPOP²⁵, for example, show that households that receive remittances are more likely to directly demand help from members of the legislature, ministers, local officials and from the municipal office, compared to those households that do not receive remittances.

In this sense, following Johnston, one of the causal mechanisms of this study is that migration improves human development in the sending countries through the exit option exercised by the migrants. In other words, when the government fails to provide the citizens with public goods such as a decent standard of life, and proper access to health and education, people will exercise their exit option by migrating in order to provide for their families back home expanding their capabilities. Governments mostly depend on the political and economic support of the population. And by migrating, people are sending a clear message to their governments by what can be analyzed as withdrawing their support for the incumbent. This is true for authoritarian states, such as Johnston describes. Nonetheless, the argument could hold some truth for democratic states as well, given that for a country such as El Salvador, losing a third of its work force is a powerful statement that means that the population is mass-exiting the system. As the state is not providing its people with proper public goods or basic freedoms, some people make the decision to use their freedom to migrate. This can enable them to improve the capabilities of having a decent standard of life, being educated, and having a long healthy life for those back home (JOHNSTON, 2011). This can be seen as a direct consequence of migration for the families of the migrants in the sending countries. Nonetheless, through

²⁵ Chapter 7 includes information on the survey data from LAPOP used for this research.

market interactions, such as the NEM theory states, these direct effects spread to the whole country, being an unintended consequence of migration on the macro level of human development.

This first causal mechanism entails a government response as a mechanism of accountability. That is, the government is expected to notice its people exercising their right to exit, and therefore, it is expected to do something about it, such as improving health, education or creating employments in order to retain the thousands of valuable elements who are leaving. The government is expected to consider the loss of thousands of low-skilled and high-skilled workers as something negative, given that these people are a vital source of wealth for the nation (labor and taxes) and they are choosing to exit the country. Once out of the country and with a job in their new receiving country, they can provide better and expand the capabilities for themselves and for their families back home. This is another reason why they are important for the incumbent government. In this sense, the government is expected to try to stop them by providing better care for the population through a higher investment in education and health, for example. Hirschman (1970) explains that there should be a management reaction to the exit option. This management reaction is expected to move towards the improvement of the quality of the offered product that was the cause of the exit in the first place. In other words, if clients are exiting a company due to the lack of quality of the product, the response of the company would be to improve such a product. Likewise, if people are exiting a country due to the lack of the most basic entitlements, the government is expected to respond by improving such capabilities.

Indeed, some governments have already outlined policies for the prevention of migration through the improvement of human development features. One example is Costa Rica, that has recognized in its laws the right of Costa Ricans to not migrate, and for that, the government has committed to seek economic growth and social development in all the regions of the country in order to reduce the reasons for emigration (UNHCR; IOM, 2013). Additionally, a campaign was launched in Central America and Mexico that was aimed at raising awareness of the dangers of migrating irregularly in an attempt to decrease this type of emigration (OAS, 2015). After the campaign, irregular migration was

reduced in 21% in Honduras in 2017, according to local sources²⁶. The International Organization for Migration, with the governments of the Northern Triangle (Guatemala, El Salvador, and Honduras), also launched a trinational strategic plan for the years 2017-2021 with the aim of decreasing the migration flows towards the United States. This strategic plan takes into consideration return migrants and their reinsertion in their countries or origin, as well as policies aimed at the improvement of situations which might cause emigration such as environmental disasters and conflicts. Furthermore, the plan includes public policies that would increase the access to education and training, proper access to health services, and opportunities for income creation with the purpose of decreasing the motivation of emigrating (IOM, 2017). More recently, the Salvadoran government began a campaign named *El Salvador es tu casa* (El Salvador is your home), which seeks to inform people about options of migrating regularly and to successfully reintegrate to the economy those migrants who return home so that they can stay²⁷.

In the case of South America, Mercosur, bilateral and intra region agreements make it easier for South American people to work and reside in the countries of the region. Argentina, Brazil, and Chile have become destination countries nonetheless, and as such, their migration laws are more oriented towards immigration and refugees rather than emigration (ECLAC, 2017). However, Ecuador has considered in its national plan of human development to encourage Ecuadorians to stay in their country by improving the human development conditions of the population (QUILOANGO, 2011). Peru, on the other hand, implemented a permanent commission for migration management that includes an interest in those Peruvians who wish to migrate, creating with it tools of social prevention, education, and creation of employment (GAINZA; BARALDI, 2013). In the case of Colombia, its institutional strategic plan *Frontiers in Line 2012-2014* states that the goal of their migration laws is not to restrict migrant flows, but to make these flows safe and controlled in order to prevent irregular migration and other violations to the rights of the migrants (MARTINEZ; MENDEZ, 2013). This seems to be the common pattern in

²⁶ See <http://www.proceso.hn/mas-noticias/32-m%C3%A1s-noticias/inauguran-el-mes-de-prevencion-de-la-migracion-irregular-honduras-te-necesita.html> Last Accessed November 6, 2017.

²⁷ Ministry of Foreign Affairs of El Salvador. Available at http://www.rree.gob.sv/index.php?option=com_k2&view=item&id=7223:cancilleria-realiza-conversatorio-sobre-migracion-con-la-comunidad-en-mejicanos&Itemid=1770 Last accessed on December 5, 2017.

the region. Paraguay is also interested in limiting emigration and encourages people to stay providing more opportunities for them (GAINZA; BARALDI, 2013).

This evidences that the improvement in features of human development is finding its place in public policy in Latin America as a way of preventing emigration. As Johnston (2011) argues, it might not be so intuitive to say that exit of a few ordinary citizens can influence rulers or public policy. Probably the exit of a few is far from compromising the fiscal stability of a whole country or the incumbent's winning coalition. The original exit-voice model, according to Johnston, is based on the early modern Europe, where capital was in the hands of a few elites whose voice and exit was easily heard by the governments, disregarding the poor who did not have such an influence. On the other hand, in today's world, ordinary citizens can have access to more travel and remittances. Globalization and technology have made it easier and cheaper for ordinary people to move and to transfer remittances from any place in the world. Hence, modern governments have to consider these new capital holders who can decide to migrate and take their assets and labor away or they can decide to remit wealth to their country of origin. These decisions are in the interest of the ruler as they can impact both the political and economic stability of any country. Therefore, in what Johnston calls a "ruler-citizen bargaining" the government offers policy concessions to its citizens in order to prevent exit (JOHNSTON, 2011; p.10).

Indeed, we can see the importance of remittances in El Salvador, Honduras and Haiti, where by 2015 this income was equivalent to the 17, 18, and 25 percent of their GDP, respectively. For these governments, migrants exercise great influence even being abroad, because these remittances are directly injected to the country through investment, new businesses, health, education and consumption, helping to somehow ease the burden of the state. In other words, even though most of the remittances are not subject to any kind of tax and the government cannot handle them, they usually go directly to those families that require state intervention. Therefore, state intervention is not a necessity anymore for these families, but a complementary assistance. Usually, the poorest people will demand more help from the government in order to deal with poverty, but this demand will decrease as these poor families have some extra income from

remittances (REHM; HACKER; SCHLESINGER, 2012). Therefore, the original demand from the population for education would turn into a demand for education of higher quality, after remittances. Now families can have more access to health and education, as well as to a higher standard of life. And this is good news for any government, but it can be felt as a threat at the same time. For example, when remittances are invested in personal informal business, the profits are not subject to tax, moving in the black market away from the eyes of the government, and increasing as more citizens exit and creating more of what Johnston calls “unregulated and untaxed foreign capital” (JOHNSTON, 2011; p.11).

On the other hand, when the state is the only benefactor, it is the ruler who has all the advantage over the people and can buy popular support through the traditional patron-client bond. But when there are other benefactors, namely the migrants abroad, they hold some leverage on the government, and this means a high social and political cost for the incumbent and a threat to the distributive state and to the stability of the regime (JOHNSTON, 2011). Furthermore, the traditional clientelistic bond between the state and the people is disrupted precisely because poor people will not depend so much on the state anymore (KURTZ, 2004; PFUTZE, 2014).

Because of this economic influence obtained through the exit option, migrants are also able to exercise political influence on their countries of origin, not only through the direct financing of political campaigns, but also through their political remittances, as explained in section 3.3. Migrants are an example of how voice can be exercised after exit relaxing Hirschman’s assumption that voice can be exercised only inside the system. Another variant compared to the original model is that the client who exits the company takes with them their support and assets. On the other hand, migrants are able to exit and re-entry personally or through their (social, political or financial) remittances, and therefore, continue to voice against or in favor of the incumbent. During presidential campaigns in El Salvador, for example, the major political parties usually hold meetings with migrants in the United States in order to listen to their needs. For the presidential election of 2004, particularly, a very important Salvadoran migrant organization based in Long Island publicly recommended to its 20,000 members to advise their families and friends in El Salvador to vote for the candidate of the leading leftist political party. And in

order to facilitate this, the organization provided its members with free phone calls (CÓRDOVA; HISKEY, 2015).

Therefore, for many people, the exit option is a very good option when trying to exercise voice and influence a government. And in the end, when thousands of people exit the country, even when they are not conscious of the magnitude of the movement, a collective good can be achieved. As Hirschman describes, an entire group can acquire a higher social status as a result of this big movement and:

[...] this occurs essentially as the cumulative result of numerous, individual, uncoordinated success stories and physical moves of this kind rather than because of concerted group efforts” (HIRSCHMAN, 1970; p. 109)

People who migrate, do not usually migrate because they want to increase the human development of their whole community or country *per se* or because they plan to influence their governments. They usually do so in order to expand their own capabilities and freedoms, as well as those of their immediate relatives. Even so, as the New Economics of Migration theory states, whole communities and countries see themselves affected by the market and communication interactions with migrant sending households.

Hirschman (1970) also explains that in some cases a mixture of voice and exit could be more powerful than only voice or only exit. In Latin America, for example, many people consider that not voting in the elections (or vote blank in those countries where voting is mandatory by law) is a way of protest against the establishment. Survey data from LAPOP, for example, shows that more than 25 percent of people did not vote in the last presidential elections. This percentage is similar along all the years in the sample of this research, that is, from 2004 to 2014. In countries such as Guatemala, Honduras, Costa Rica, Colombia, and Paraguay, the percentage of people who did not vote is above 30.

So if a country fails to provide the most basic entitlements for its people, why do not all people migrate? While Hirschman (1970) might think of it as loyalty, Borjas (1989) might say instead that a person needs a certain amount of money in order to migrate, and not everyone has this luxury. A combination of both arguments is plausible. Some people

might be loyal to their country given their nationalist sentiment, and at the same time, do not have the initial amount of money to make the journey, being able to voice but unable to exit.

In any case, the exit option might not always work in favor of the population. Remittances can become unearned foreign income for the state and they can have the same effects as other types of income such as foreign aid or oil rents that can influence growth and the stability of the regime (JOHNSTON, 2011; AHMED, 2012). As noted above, when remittances flow to the least developed countries, they usually go to the families that need more state intervention, helping the government to ease the burden of heavy investment in health or education. In other words, remittances would, in the long-run, reduce the levels of social spending (against old age, disability, illness, and unemployment, as well as cash transfers to the poor) in the remittance receiving countries, as Doyle (2015) has proven in his study on social spending in Latin American democracies. Ahmed (2012) also shows that, autocratic governments can benefit from remittances because the government is allowed to spend less on welfare and more on patronage extending their time in office, given that their winning coalitions are small.

However, as Johnston (2011) argues, the influence that migrants might have on their countries of origin does not occur in all governments alike. The author states that this influence will depend on how strong a government is in terms of its access to capital. Probably states such as El Salvador, Honduras and Haiti, would have large transfers of remittances, but are relatively poor states and have less access to other types of capital. More citizens are likely to take the exit option and they can hold great leverage on their governments. On the other hand, much bigger states, such as Brazil, Argentina or Chile certainly have more access to other types of capital. Therefore, less citizens take the exit option in these three countries and less remittances are received. Here migrants are more likely to have less leverage on their governments through the exit option given that the remittances they might transfer cannot hurt the winning coalition, the selectorate or the stability of the regime.

Nonetheless, given the theoretical reasons in this section, migrants exercising their exit option are expected to trigger a government response which would translate in investment on education and health in the sending countries.

5.2. Migration as the equilibrium of supply and demand

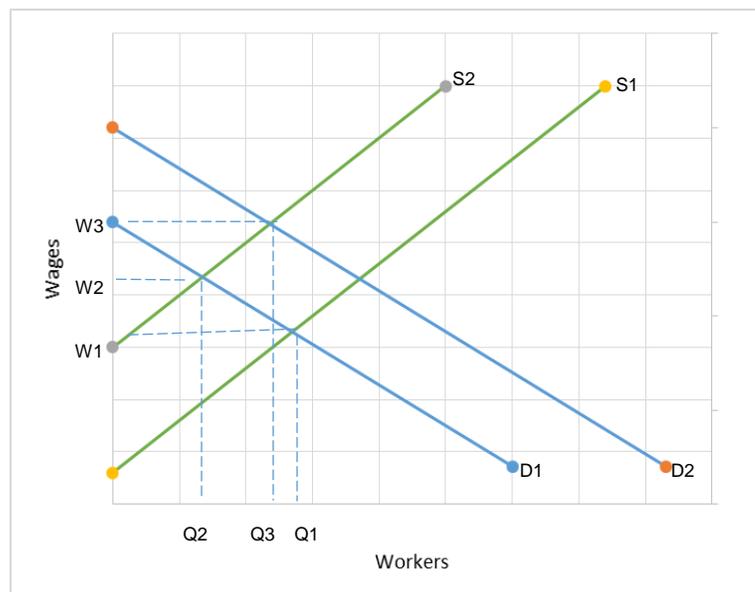
The second mechanism entails supply and demand of the labor market forces. In other words, when thousands of migrants leave their countries of origin, there are considerably less people in the country, there will also be less competition for scarce resources such as employment, better wages, and presumably, better access to education and healthcare. In this sense, more migration would mean that there are more resources in the sending country available for those who stay; this is why resources available are expected to balance.

In economic theory, as Rogowski (1989) explains, countries will export the goods that make intensive use of the relatively abundant factors and import the relatively scarce ones, based on the Heckscher-Ohlin theorem. In this sense, in an economic theory of migration, sending countries export labor because this is for them the abundant factor, and conversely, this same country would import another factor of production that is scarce, such as capital, which is very likely to come in the form of remittances, and eventually reaching a balance. If a country loses too many workers with respect to the total labor force, the country could eventually learn to restructure itself around labor scarcity. This would make this country to change to a less labor-intensive and more capital-intensive economy (TAYLOR; DYER, 2009). Additionally, migration is very likely to lead to a drive up of wages benefiting the workers who remain behind, as the competition for limited jobs would decrease and wages would tend to balance. On the other hand, migration can lead to a reallocation of the scarce/abundant resources in the sending countries.

Following Figueroa (2016), Graph 11 shows that D1 and S1 represent demand and supply of labor in a given country before emigration, Q1 would be the pre-emigration equilibrium point, and W1 represents the level of wages pre-emigration. Here, it is

assumed that this is a balanced market where supply and demand would find a point of balance eventually. However, it should also be remembered that many of the countries analyzed in the sample of this research possess a surplus of labor and a demand point that does not meet all the labor supply. S2 represents the supply of labor after emigration, or after the country has already lost a given number of workers. If the demand is kept equal, it can be seen that the labor supply decreases moving to Q2, where wages would increase to W2. If demand increases, as any expanding or growing economy, Q3 point would be met, which represents a quantity of workers that is lower than the pre-migration point with a higher wage level, W3. If a given migrant sending country has a surplus of labor, production would not be affected given that the required labor would still be in the country. However, if this country has labor shortage, emigration would hurt production due to the lack of labor (FIGUEROA, 2016a).

Graph 11 - Supply and Demand of Labor before and after Emigration



Source: Figueroa, 2016.

Following this model, wages increase in all the described points. However, in real life wages do not always follow this theoretical ideal model. Theoretically, freer migration

would cause an increase in wages in Latin America in the long-run triggering a redistribution of income and inequality would very likely decrease (FIGUEROA, 2016a). Additionally, migration can have positive effects by reducing competition for limited jobs when there are high levels of unemployment, encouraging productivity (Koser, 2007).

Competition for scarce jobs reduces and the high-skilled left back home might experience an upward in wages. Additionally, the notion of “brain exchanges” that characterizes globalizing economies can also act as an incentive for sending countries to insert themselves in the global labor market and boost education enrollment of their people and eventually, an overall national well-being. Another aspect of the high-skilled migrants is that they are more likely to invest in the sending countries, which increases the probability of sending remittances, and rises in investment and production in the sending country (LOWELL; FINDLAY, 2001). Low-skilled migrants, on the other hand, are not expected to adversely affect production if a given sending country experiences surplus of labor, as is usually the case, especially in the lower ranks of the production chain. However, low-skilled emigration might also help reach an equilibrium in the wages of the fellows behind. That is, with less population, even low-skilled jobs would see an increase in their wages as labor becomes scarcer (ROSENZWEIG, 2005).

On the other hand, there is also research that claims that if the supply of migrant flows and remittances are not stable and have many ups and downs, the economies back home might have difficulties adapting to this uncertainty. One of these difficulties can be inflation. Another difficulty can be the so called “Dutch disease”, term that is used to describe the negative impact on a country when there is a huge inflow of, let us say, foreign currency looking like a good economy, however leading to detrimental effects eventually (KNERR, 1993; O'TOOLE, 1998; JENNISSEN, 2007). Furthermore, when economies face a recession the probability of migrating is more likely to increase.

Zaqqa (2006) claims that there is a positive return of the government expenditure in higher education when the high-skilled ones migrate, and that governments should aim at the formation for this population at the point of considering them as an export strategy, given the future benefits that are to be gained from them. According to the author, if the sending country suffers from unemployment, there is a positive return from the emigration

of the high-skilled population. On the other hand, when there is scarcity of labor only, the return of the high-skilled ones is positive.

This research, on the other hand, intends to measure the effect of both low-skilled and high-skilled emigration on the human development of the sending countries. Most studies tend to focus on the high-skilled emigration, given its importance and effects. However, comparing statistics (see Graph 7), it can be seen that low-skilled emigration is higher than the high-skilled one, and therefore it also deserves proper attention. Therefore, given the theoretical reasons in this section, the movement of both high-skilled and low-skilled emigrants out of the sending countries is expected to trigger a positive effect in wages and employment in the sending countries. This would be due to the new availability of resources caused by emigrants and that would be shared among those who stay in the sending countries.

5.3. Migration as expansion of capabilities

The third mechanism entails the migrants themselves. That is, as migrants make the decision to emigrate probably due to the current state of unfreedoms they are experiencing, they are expected to cooperate with those back home through financial, social or political remittances (FIGUEROA, 2016b). People use their freedom to emigrate in an attempt to improve their human development and that of their immediate relatives in the sending countries. For this, it is key that people have the freedom to migrate, or to not migrate in the first place. In the sample chosen for this study, Cuba is the only country with serious restrictions to emigration. However, as explained in Chapter 2, the Cuban people face strong push and pull factors that make them take the risks, and as a result, the Cuban diaspora in the United States is rather large. This effort has consequences, both good and bad, that eventually extends to the whole community and the country, as the New Economics of Migration states. People make this possible through their remittances, which can be of financial, social and political nature, and have a great influence in the people back home.

Financial remittances, for example, hold the advantage of being countercyclical. That is, when financial markets decline, the flow of remittances tends to increase. In other words, remittances tend to increase not only with economic depressions, but also when political or civil crises occur in the countries of origin (RATHA, 2013). Data from LAPOP show that from 2004 to 2014, 13 percent of the Latin Americans interviewed reported to receive remittances. In Mexico, Guatemala, Costa Rica, Panama, Colombia, Ecuador, Peru, Chile, Uruguay, Brazil, and Venezuela, the percentage of people who reported to receive remittances is below 10. On the other hand, this percentage was 23 for El Salvador, 18 for Honduras, 16 for Nicaragua, 21 for the Dominican Republic, 50 for Haiti, and 30 for Guyana.

Additionally, 59 percent of the remittance-receiving households reported that they depend a lot on remittances, while 32 percent reported to depend on remittances only a little and 9 percent reported not to depend on remittances. Countries where remittance-receiving households reported a highest dependence on remittances were Mexico, Guatemala, El Salvador, Honduras, Nicaragua, Bolivia, Paraguay, Venezuela, Argentina, Dominican Republic, Haiti, and Guyana. Furthermore, remittance-receiving households reported to use this extra money for consumption (47 percent), education (26 percent), housing (8 percent), savings (2 percent), issues of the community (1 percent) and other uses (16 percent). There is some criticism due to the fact that good part of remittances are used for consumption. However, according to Behrman et al. (2006), even consumption can be seen as positive in the long-run due to its investment-like effects in poor communities. For example, these remittances are invested in nutrition and other basic consumption articles that in the long-run enhance human capital, and therefore, future income. On the other hand, the investment of remittances in education increases the expansion of capabilities for the next generation in the families (BEHRMAN et al., 2006). Additionally, the use of remittances in housing and construction has multiplier effects in local economies (ADELMAN; TAYLOR; VOGEL, 1988).

According to Ratha (2013), families who receive remittances invest more in health care and education compared to those who do not receive them, and this serves to expand the capabilities of the non-migrant families in the sending countries (EDWARDS;

URETA, 2003; ADAMS; PAGE, 2005; HILDEBRANDT et al., 2005). McKenzie and Hildebrandt (2005) also found that children in migrant sending households present lower infant mortality and a higher birthweight. In addition, they found migrant sending households possess a better health knowledge and preventive health care, as well as more breastfeeding and vaccinations.

There is a very important point here, and is that the level of investment of migrants on the sending countries will depend heavily on the selectivity of migration, as well as the level of development that already exists on these regions (DE HAAS, 2010). This means that those who emigrated will have the privilege of choosing whether to invest first on education and health, and later on a business that will eventually spread the benefits of migration. It also means that a region that already has a considerable level of development, where the population already has access to a good health care and education, migrants and diasporas can choose to invest more on new businesses and the quality of national institutions, such as democracy and freedom. Furthermore, remittances might help reverse the problem of brain drain in the long-run, as they are able to boost levels of spending on education and health (RATHA, 2011).

This study expects that the above findings about financial remittances hold up in the case of Latin America. In other words, it is expected that financial remittances affect positively indicators of human development such as the enrollment in primary, secondary, and tertiary education, life expectancy, as well as wages and employment in the sending countries. Furthermore, given that financial remittances would have a positive effect on tertiary education, this study expects an indirect positive effect on the number of births attended by highly skilled personnel.

However, for remittances to be sent, people have to get out of their countries in the first place. The emigration of high-skilled workers is particularly worrisome for the sending countries because thousands of the most educated people decide to leave instead of staying and producing in their home country. Pull and push factors work as well for the high-skilled workers. A difficult combination of factors shows up when there is an increasing demand for high-skilled workers in the advanced economies while the labor market at home is not able to absorb all the educated ones (FIGUEROA, 2016a). High-

skilled citizens also seek to expand their access to a more decent standard of living, and probably, a much higher education. Research still is contradictory as it predicts that high-skilled emigration could stimulate economic growth (TAYLOR; ADELMAN, 1996), but it might also significantly damage productivity and creates a problem of brain drain. In this sense, production might be one of the most badly affected areas of the sending countries, because it is very likely to face difficulties when migrants take with them human or financial capital (TAYLOR, 1999; LOWELL; FINDLAY, 2001). Furthermore, according to Portes (2009), high-skilled emigration would have positive effect on general development when their emigration is cyclical, but he expects mixed effects when their migration is permanent.

Among the positive effects of high-skilled emigration through which they help expand the freedoms and capabilities of the sending countries are the remittances that they send, contributing in many ways to the local and national economy. They are more likely to earn higher wages than low-skilled migrants and therefore, they are expected to remit more (FIGUEROA, 2016a), albeit the low-skilled emigration is more in absolute numbers, and the remittances, in sum, are higher. Another way of expanding freedoms and capabilities is the transfer of the knowledge they get abroad and use it to their advantage in their home country, which increases productivity and economic development in the long-run. However, when high-skilled emigration reaches high levels, economic growth slows down and poverty increases as a consequence (HAQUE; KIM, 1995). This means that low levels of high-skilled emigration are associated with good effects, while reaching a high level represents negative effects for the sending countries (MOUNTFORD, 1997). In this sense, in light of these theoretical background, this study expects a positive long-run effect of emigration of both high-skilled and low-skilled workers on the gross national income of the sending countries.

As Lowell and Findlay (2001) suggest, high-skilled emigration can also work as an incentive for better paid jobs abroad. According to the authors, because citizens aim for a better economic future, they could be encouraged to get a better education in order to be eligible for a job abroad, and this would increase the freedoms of both education and economic development in the long run, leading to brain gain as the return to education is

significant (LOWELL; FINDLAY, 2001). Fan and Stark (2007), along a similar analysis, also suggest that the only prospect of emigrating can encourage a stronger investment in education. The authors argue that in the short-run, there might be some “educated unemployment” in the sending countries because of this boom in school enrollment caused by the prospect of migrating, but that in the long-run, and with a relaxed migration policy, developing countries experience positive gains (FAN; STARK, 2007; p 630). In the same line, Batista *et al* (2012) found that there is a positive relationship between the probability of emigrating and the investment in more education, and that a decrease in the probability of emigrating leads to lower levels of education. Furthermore, survey data in the United Kingdom showed that 40 percent of doctors chose to study medicine because they saw the opportunity of emigrating (KANGASNIEMI; WINTERS; COMMANDER, 2007). In this sense, I expect that high-skilled emigration will have a positive effect on enrollment in primary, secondary, and tertiary education. In fact, I expect a positive effect also from the low-skilled emigration on education, not only because these migrants would help financially for the enrollment in education, but also because they would encourage their families and friends back home to get a higher education that would be very valuable abroad.

Stark et.al. (1997) demonstrate how the emigration of the high-skilled ones can also lead to a brain gain for the sending countries, given that these migrants will acquire even more skills abroad and will share them in case of returning home. However, they can also share their knowledge through social and political remittances. Portes (2009) explains that, very often, the high-skilled migrants feel indebted to the institutions where they were educated and try to pay back through philanthropic activities, transfer of information and technology, sponsoring the education of younger people and even through the founding of institutions of higher education. Furthermore, the high-skilled migrants have the advantage of being cyclical. In other words, they can travel from the receiving country to the sending country, and viceversa, without major problems given that they have more resources. This is more difficult in the case of the low-skilled ones. Therefore, the high-skilled ones can make more investments in their countries of origin and being physically involved at the same time (PORTES, 2009). On the other hand, an adverse effect is that the sending countries are deprived of the taxes that these emigrants

would normally pay, which could affect government investment in public policies such as education and health (HANSON, 2008).

On the other hand, when low-skilled citizens emigrate, the family is temporarily left without financial support from one of the main providers, if savings do not make part of the family plan, or when the settlement in the host country takes longer than expected (FIGUEROA, 2016a). This assumption is made supposing that the low-skilled emigrants and their families would have less resources, as compared to the high-skilled ones. Another negative point is that the return to education for the low-skilled ones might not be very significant, affecting badly the incentive structures for education (MCKENZIE; RAPOPORT, 2006). According to Portes (2009), low-skilled emigration can have positive outcomes on development only when their migration is cyclical, but if their migration is permanent the outcome is negative. This study expects a positive effect from the low-skilled emigrants, given that they are more than the high-skilled ones in absolute numbers, and therefore, their contribution as a whole is expected to be positive.

Social and political remittances can also exercise a great influence on the expansion of freedom of the people in the sending countries, beginning by their relatives and friends. Levitt (1998) defines social remittances as “the ideas, behaviors, identities, and social capital that flow from receiving to sending country communities” (LEVITT, 1998; p.927). These type of remittances is usually transferred through communication channels that migrants use to stay in touch with their families and friends in their countries of origin. For example, migrants used telephone calls or letters in the past, but globalization has helped to facilitate this communication through social media. Survey data from LAPOP shows that 62 percent of the households maintain constant communication with the person who sends remittances. It can be seen from these data that most of the migrants still have a very strong link to their countries of origin.

Political remittances, on the other hand, are considered to be the influence that migrants can have on the political behavior of their families and friends in the sending countries (LEVITT, 1998). For instance, (CÓRDOVA; HISKEY, 2015) found that non migrants who have stronger ties with those relatives in the United States were more likely to be more involved in politics, to sympathize more with a political party and were more

likely to persuade others to vote for a specific party. The authors also found that the use of internet among non-migrants with strong ties to migrants resulted in an increased political knowledge and interest. LAPOP survey data, on the other hand, show that 15 percent of the households that receive remittances reported to have worked for a political party or candidate, compared to an 11 percent of the households that do not receive remittances. On the other hand, 36 percent of the households that receive remittances reported to have tried to convince others to vote for a specific political party or candidate, against 31 percent for the households that do not receive remittances. Aparicio and Meseguer (2012) also show how hometown associations (HTAs) play a very important role in the cooperation with the sending countries, and that they also serve as a channel through which migrants can involve themselves and influence politics in their home countries. Based on this theoretical background, this study expects a positive effect of emigration on the freedom (civil and political) in the sending countries.

(O'MAHONY, 2013) documented that diasporas very often organize into migrant organizations, and that in some cases these collective efforts can directly influence the support for a given political party or candidate in their country of origin. Furthermore, the author found that financial remittances increase during election years. Other authors have also registered the different channels through which migrants impact the local political process of the sending countries in Latin America (LEVITT; LAMBA-NIEVES, 2011; MESEGUER; BURGESS, 2014; CÓRDOVA; HISKEY, 2015). Furthermore, (PÉREZ-ARMENDÁRIZ, 2014) found that conversations between migrants and their families in the sending countries often entail a significant political dimension. In her study, the author finds that 85 percent of migrants' conversations with their relatives back home very often entail public and political life in their receiving country.

Because of this, (CÓRDOVA; HISKEY, 2015) argue that those migrant sending households may have more motivation to change their communities compared to the households with no migrants. The reason for this is that migrants diffuse their ideas stressing the importance of involvement in politics and community projects. Survey data from LAPOP, on the other hand, show that 44 percent of the households that receive remittances have helped to solve a problem in their communities, against a 35 percent

of the households with no remittances, evidencing a stronger link between migrant sending households and their involvement in their communities. According to Portes (2009), these transnational organizations, through their activities and influence, help compensate the possible negative effects that can arise from permanent out-migration. Furthermore, the author considers these organizations as a way of “globalization from below”, which gives the opportunity for the least privileged to compensate inequality and the lack of opportunities that are characteristics of a capitalist system (PORTES; DEWIND, 2004).

Diasporas are a great source of options that help expand freedoms and capabilities in their countries of origin, besides their financial remittances. The bigger the diaspora, the bigger the expected effects on the human development of the sending countries. Diasporas hold vital information about jobs and settlement for those who wish to emigrate, for example. Survey data from LAPOP show that 54 percent of the households that receive remittances have a family member who intends to emigrate, against a 39 percent of those households that do not receive remittances. This can be explained by the strength of the link between those who have migrated and are sending remittances with those back home. Additionally, as Borjas (1989) explains, a person is not able to migrate without an initial amount of money that will serve this purpose. Remittances can help expand the capability of emigrating by helping reach this initial amount.

5.4. Hypotheses

Given the theoretical basis above, this study presents the following hypotheses for the expected effect of emigration on the access to a decent standard of life:

H1: Emigration is expected to affect positively the wages in the sending countries in the long-run, through the balance of supply and demand proposed in section 5.2.

H2: Emigration is expected to affect positively the employment in the sending countries in the long-run, through the balance of supply and demand proposed in section 5.2.

H3: Emigration is expected to affect positively the GNI in the sending countries in the long-run, through the influence that migrants themselves exercise through the expansion of capabilities proposed in section 5.3.

H4: Emigration is expected to affect positively the freedom in the sending countries in the long-run, through the influence that migrants themselves exercise through the exit option proposed in section 5.1 and through the expansion of capabilities proposed in section 5.3.

On the other hand, this study presents the following hypotheses for the expected effect of emigration on the access to education:

H5: Emigration is expected to affect positively the public expenditure in education in the sending countries in the long-run, through the influence that migrants themselves exercise through the exit option proposed in section 5.1.

H6: Emigration is expected to affect positively the enrollment in primary education in the sending countries in the long-run, through the influence that migrants themselves exercise through the expansion of capabilities proposed in section 5.3.

H7: Emigration is expected to affect positively the enrollment in secondary education in the sending countries in the long-run, through the influence that migrants themselves exercise through the expansion of capabilities proposed in section 5.3.

H8: Emigration is expected to affect positively the enrollment in tertiary education in the sending countries in the long-run, through the influence that migrants themselves exercise through the expansion of capabilities proposed in section 5.3.

Lastly, this study presents the following hypotheses for the expected effect of emigration in the area of a long and healthy life:

H9: Emigration is expected to affect positively the life expectancy in the sending countries in the long-run, through the influence that migrants themselves exercise through the expansion of capabilities proposed in section 5.3.

H10: Emigration is expected to affect positively the delivery of births attended by highly-skilled personnel in the sending countries in the long-run, through the influence that

migrants themselves exercise through the expansion of capabilities proposed in section 5.3.

H11: Emigration is expected to affect positively the public expenditure in health in the sending countries in the long-run, through the influence that migrants exercise through the exit option proposed in section 5.1 and through the expansion of capabilities proposed in section 5.3.

This study focuses on the emigrants themselves and the effect that they have on the human development of the sending countries. However, migrants can affect the sending countries through financial, social, and political remittances. Furthermore, given the difficulty to measure social and political remittances, financial remittances are used as a backup measure for emigration on this study.

Therefore, the following hypothesis is presented:

H12: Remittances are expected to affect positively the living standards, the access to a long healthy life, and the access to education in the sending countries in the long-run, through the influence that migrants themselves exercise proposed in section 3.3.

The hypotheses presented here are expected to have the described effects in a more complex and heterogeneous way both in the short-run and in the long-run. In other words, high-skilled and low-skilled emigration are expected to have different effects in the human development of the sending countries in the short-run and in the long-run. However, in order to keep the hypotheses simpler and more understandable, all of them have been written as positive expectations of the effect of emigration in the long-run, because this would be my general intuition.

6. METHODOLOGICAL STRATEGY

“You may have heard the world is made up of atoms and molecules, but it's really made up of stories. When you sit with an individual that's been here, you can give quantitative data a qualitative overlay.”
(William Turner)

The measurement of the impact of migration on each of the areas of human development is difficult. According to MCKENZIE and SASIN (2007) there are three challenges that researchers face on this matter. The first challenge concerns the data and the definition of human development used in order to measure the impact. In this research, the reliability is on data from widely recognized international institutions such as the World Bank, the Yearbook of Immigration Statistics of the United States, Freedom House, UNDP, Occupational Wages Around the World from ILO, the Penn World Table, and the Global Health Observatory. With regard to the definition of human development adopted, as it was outlined above, I adopt the UNDP and Sen's definition, which is that human development is about enlarging people's capabilities and substantive freedoms.

Given that there is no a single theoretical or statistical approach than can be used in order to study human development, i have relied on the existing literature and indicators that offer enough and relatively reliable data for the countries and years in the sample studied here. Therefore, in my opinion, the variables studied here address this concept in a rather stylized manner, given that the indicators analyzed differ a bit from those used by the UNDP. In this sense, I consider that the indicators chosen for this research are the means through which a person can expand her freedoms and capabilities. In other words, enrollment in primary, secondary or tertiary education, for example, are considered the means through which people can achieve the capability of being free from illiteracy. At the end, the people are given the opportunity of being educated, but individuals have the freedom to choose whether to be educated or not. Conversely, people could be given the opportunity of political participation, but each individual has the freedom to participate or

not. Hence, the person has the capability of being and doing what he/she wants to be and do, given the means offered to him/her.

The second challenge has to do with problems inherent in the model, such as endogeneity and omitted variables. For this, a variety of models and statistical techniques are used in order to address the problem of endogeneity and tests are run in order to determine the problem of omitted variable. Finally, the third challenge has to do with the indirect socioeconomic effects, such as the effects on people living in the sending countries, the transferring of knowledge, information, ideas, culture, and psychological stress on both the migrant and the non-migrant, etc. These type of effects are difficult to assess from aggregate data. Therefore, I rely on survey data from the LAPOP AmericasBarometer. Below are the independent, dependent, and control variables explained in more detail.

6.1.Data and operationalization of variables

The empirical analysis done in order to assess the impact of emigration on the human development of the sending countries comprises data for 21 Latin American countries whose population is greater than 500,000 for a period from 1970 to 2015. The data are organized in a time-series cross-section database that presents 970 country-year observations²⁸. All the variables used in the models were logged and analyzed for unit roots finding that most of them had to be differenced once in order to make the time series stationary. In general, many of the time series datasets are first-difference stationary. A stationary process usually reverts around a constant mean over time. A non-stationary process does not have a constant mean and can have a trend or a drift over time, a random walk or a combination of the three. Sometimes, they even become an explosive series. Results from non-stationary data could be spurious, and this is why the series must be transformed into a stationary one (IORDANOVA, 2007). The dataset made

²⁸ Appendix 12 shows the results of the analysis of data for each variable. Even though a few variables show uneven data for some countries, 21 countries were chosen as they showed more data for the variables studied in this research.

for this research presents non-stationarity in many of its variables when analyzed for unit-roots²⁹. A more detailed description of the used variables is below.

6.1.1. Independent Variables

6.1.1.1. High-skilled and low-skilled flows

With regard to the measurement of migration, data is always a challenge as the desirable measurements are not available for all the countries and years in the sample. For this analysis, migrants who are accepted as such in United States have been classified into low-skilled and high-skilled workers. The most common method to define a high or low-skilled worker is by his or her education level. However, I failed to find these kind of data for all the countries and all the years included in the analysis. Therefore, this work uses the second criterion: occupation (PARSONS et al., 2015). These data were taken from the Yearbook of Immigration Statistics of the Department of Homeland Security³⁰ of the United States that reports the profession/occupation of each immigrant at the time of being accepted in the country. The criteria for the classification of high-skilled and low-skilled were applied following the International Standard Classification of Occupations (ISCO)³¹, which groups occupations based on a two-dimensional concept of skill. That is, the skill level and skill specialization required to proficiently perform the tasks of every occupation is used in the classification. In this sense, the ISCO classifies occupations as described in Table 5.

In this sense, I use these criteria in order to classify the data provided by the Department of Homeland Security of the United States. From 1980 to 1999, immigrants

²⁹ Appendix 10 show the analysis of unit-root, trend and drift for each of the dependent variables, independent variables, and control variables that are used in this research.

³⁰ Yearbook of Immigration Statistics. Department of Homeland Security. Available at <http://www.dhs.gov/yearbook-immigration-statistics>

³¹ The International Standard Classification of Occupations was developed by the International Labor Organization in 1957. It has gone through three revisions, being the last revision the one published in 2008. The resolution concerning updating the ISCO is available on <http://www.ilo.org/public/english/bureau/stat/isco/docs/resol08.pdf> Last accessed 2/25/2016.

who reported occupations that require skill levels from 1 to 6 were classified as high-skilled migrants, while those who reported occupations that require skill levels from 7 to 9 were classified as low-skilled migrants. From 2000 to 2015, this classification changes as the Department of Homeland Security of the United States classifies immigrants based on the preference system³². In this sense, preferences from one to three are considered as high skilled migrants, while the rest of the preferences are considered as low-skilled immigrants.

Table 5 - International Standard Classification of Occupations

<i>Major groups</i>	<i>Skill level</i>
<i>Managers</i>	1
<i>Professionals</i>	2
<i>Technicians and associate professionals</i>	3
<i>Clerical support workers</i>	4
<i>Service and sales workers</i>	5
<i>Skilled agricultural, forestry and fishery workers</i>	6
<i>Craft and related trades workers</i>	7
<i>Plant and machine operators, and assemblers</i>	8
<i>Elementary occupations</i>	9

Source: Author, based on the Resolution Concerning Updating ISCO. ISCO-08 Structure

6.1.1.2. Remittances

Once migrants (both high-skilled and low-skilled) reach their destination country, find a job and form part of the existing and increasingly organized diaspora, they are expected to share their income with those who stayed behind. Furthermore, going beyond

³² The Yearbook of Immigration Statistics of the Department of Homeland Security provides data on all migrants accepted by specific occupation from 1980 to 1999. However from 2000 the DHS establishes a preference based system. The employment based preferences consist of five categories: priority workers (those with extraordinary ability in the sciences, arts, education, business or athletics), professionals with advanced degrees or aliens of exceptional ability, skilled workers (those with a special skills, training, knowledge and ability in their work. Usually have attended college, university or technical school), professionals without advanced degrees, and needed unskilled workers.

the financial remittances, migrants are also expected to share their experiences and knowledge about the migration journey and the destination country. As migration is seen as a voluntary contractual arrangement between the person who emigrates and those left behind in the sending countries, the result of such a contract must be shared, in terms of both costs and returns.

As discussed in section 5.3, diasporas also affect their home countries' welfare in various direct or indirect ways, not only economically but also socially, culturally and even politically. Diasporas are expected to remit, especially when they make part of the first generation, that means, the persons that first migrated (as opposed to those from the second generation, who are the children of the first generation that are born in the receiving country). However, it is extremely important that these diasporas actually have a bond with those left behind in the sending countries. As Ketkar and Ratha (2007) point out, diaspora bonds are able to encourage savings not only from first generation migrants, but also those who migrated a long time ago and even those who were born abroad. Latin American immigrants have proven to possess these strong familial and patriotic bonds. In fact, the diaspora bond has been thought of as a "debt instrument issued by a country to raise financing from its overseas diaspora" (KETKAR; RATHA, 2007: p.5). From this point of view, family is not seen as a split entity, but a united one that holds together via tradition, patriotism, shared values and a strong family bond.

Data for financial remittances comes from the World Bank's World Development Indicators³³. Remittances as percentage of a given country's GDP are used in order to account for the significance of the received remittances for a country given the magnitude of its economy. In this sense, comparing the amount of remittances received by Colombia and El Salvador, the amount received is similar: US\$4.6 billion for Colombia and US\$4.2 billion for El Salvador, for 2015. However, the significance of this amount is not the same. For Colombia, this amount represents the 1.60 percent of its GDP, while for El Salvador,

³³ World Development Indicators Database is available on <http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators> Last visited on August 20, 2017.

it represents the 17 percent. This will probably make a huge difference in El Salvador and a probably smaller difference in Colombia.

6.1.2. Dependent Variables

6.1.2.1. Human Development

Human development is a vast topic. It involves several variables and it becomes difficult to operationalize it properly in order to come down to a single measure. The UNDP, based on the work of the authors discussed in Chapter 3, and the commitment of Mahbub ul Haq and Amartya Sen, calculated the Human Development Index (HDI) in 1990. It has been prized as the only measure that has, for over 25 years, effectively defied the domination of the economic growth model (HIRAI, 2017). However, while it is a very useful measure and we must acknowledge that it has been crucial in capturing the attention of the scholars, governments and society, it leaves many important issues aside. In accordance with Hirai (2017), I also recognize that due to the vastness and philosophical background of the concept of human development, its operationalization into a single measure delivers less than needed or expected.

The HDI currently uses only the life expectancy at birth, the mean years of schooling and expected years of schooling, as well as the Gross National Income per capita in order to assess the level of human development of a country. Seeing this, the UNDP and the Oxford Poverty & Human Development Initiative (OPHI) worked on a second measure: the Multidimensional Poverty Index (MPI)³⁴. This new index captures the deprivations that people suffer. While it also uses the three areas used in the HDI (living standards, education and health), it includes more information in each area, such as child mortality, nutrition, years of schooling, school attendance, and access to cooking fuel, toilet, water, electricity, floor, and assets. Because of this, the MPI is calculated for about 100 countries, while the HDI is available for almost all countries.

³⁴ Oxford Poverty & Human Development Initiative. Available on <http://www.ophi.org.uk/multidimensional-poverty-index/> Last visited May 29th, 2017

But can a single measure of human development give us enough information on how migration affects it? Probably not. One of the best solutions would be to work with the disaggregated sub-indexes used in the HDI. In this research, the selection of the indicators to work with is based on the HDI and the MPI insofar as the three areas they both work with. That is, I take into consideration the access to a decent standard of life, to knowledge and to a proper health care. However, the indicators used here in order to address each of these areas of human development are not exactly the same as those used in the HDI or OPHI. Instead, the indicators used here are what I consider, in my own opinion, to offer a better picture of human development in Latin America, given the availability of the data for the countries and years in the sample. The above cited indexes leave many important variables out of their consideration, and this research seeks to, at least partially, fill this gap by including other factors different from the ones considered for these indexes.

As Sen suggests, “it would be a great mistake to concentrate too much on the Human Development Index, or on any other such aggregative index” (SEN, 2000b; p.22). While Sen recognizes the usefulness of such indexes, he also acknowledges that the most important feature of the concept of human development is the “plural attention” on the evaluation of development, rather than the aggregative measure itself (SEN, 2000). This is why I assess the effects of migration on each of the areas of human development separately and not as a whole. The main reason for this is that I, in accordance with Amartya Sen, believe that the research itself is richer in the analysis and the effects can be better seen when each area of human development is analyzed separately. As such, I do not construct an index by including all the variables in each area and weighing each of them. Instead, I understand human development in its plurality analyzing the effects of migration in the expansion of capabilities in each area, and then concluding about the diversity of effects that is expected to be found.

This way, I seek to address some of the criticism faced by the authors who have constructed composite indexes in the past. For example, by focusing in Latin America, it is ensured that the collection of the data by each country is at least similar, which would vary if countries from different continents were used. The importance of each variable is

also very likely to vary from continent to continent. For example, the education of girls would be important in some countries, while in others it would not be so important. Second, by analyzing the effects of migration in each separate area of human development, I might avoid the problems of finding a single formula and the weight of each variable that often lead to bias, giving the proper attention to each variable separately. The arithmetic mean of the HDI was heavily criticized, and even though some logical explanation was offered (See NGUEFACK-TSAGUE; KLASSEN; ZUCCHINI, 2011) the UNDP opted for changing to a geometric mean in 2010. Still, scholars do not agree on the right method.

Third, by analyzing different variables in each area of human development, this research widens the picture of human development in Latin America by including other important variables that account for the expansion of a person's capabilities usually left out by composite indexes. Lastly, having the advantage of collecting data in 2017 increases the probability of having better quality of data compared to data collected in the 1980s or 1990s, given that many institutions have improved their data collection methods.

Following Alkire (2002) on his characterization of the dimensions of human development, I separate the dimensions based on the criteria that these should be self-evident, incommensurable, irreducible, and non-hierarchical. In other words, these dimensions should be self-evident in the sense that they should be recognizable by anyone; incommensurable, because the qualities of one dimension are usually not present in another dimension; irreducible, because there should not be a one single denominator to which all the dimensions can be reduced; and non-hierarchical, because one dimension can be more important than another dimension anytime (ALKIRE, 2002).

To begin with, in order to address the area of a decent standard of life, four indicators are used. The first one is a measure of civil liberties and political rights from Freedom House ³⁵, as one of the additional indicators of human development is freedom, albeit not taken into consideration in the creation of the HDI. Without freedom, human

³⁵ Freedom House provides annual data on political rights and civil liberties around the world. It is available on <https://freedomhouse.org/report-types/freedom-world> Last visited on August 20, 2017.

development is merely basic needs. A comprehensive analysis of human development should include the possibilities that people have of exercising their political rights and influencing public decisions (PRADOS DE LA ESCOSURA, 2015). The second and third indicators are the labor market, understood as employment and wages. For the employment variable, the Penn World Table³⁶ dataset was used, which measures the employment ratio relative to the working age population. This variable was chosen instead of the more commonly used measure of unemployment, due to the lack of the complete data for all the countries and all the years in the sample.

Data on wages comes from the Occupational Wages around the World Database, which is derived from the International Labor Organization October Inquiry Database³⁷. Wages include all the payments both in cash or kind that are paid to employees in a given year as a compensation for their work. It includes direct wages and salaries, remuneration for time not worked, bonuses and gratuities, housing and family allowances, and payments in kind. It excludes contributions to social security, pensions and insurance, as well as severance and termination pays. (FREEMAN; OOSTENDORP, 2005). The amounts of wages used in this research are the monthly amounts presented in thousands of United States dollars. Lastly, the Gross National Income is used, which data come from the World Development Indicators and measures the sum of value added by all producers plus any product taxes plus net receipts of primary income from abroad³⁸. The data is represented in current United States dollars.

This first dimension of human development relies on the importance of economic assets. Therefore, having a job and measuring the relative wages during the studied period of time makes sense for the purposes of this research. Previous studies have found that household income impacts directly basic aspects of human development such as schooling, food expenditure, and the use of health services (RANIS; STEWART, 2000;

³⁶ Feenstra, Robert C., Robert Inklaar and Marcel P. Timmer (2015), "The Next Generation of the Penn World Table" forthcoming *American Economic Review*, Available at www.ggd.net/pwt

³⁷ The Occupational Wages around the World Database provides data on wages for 161 occupations in 171 countries. The database calibrates the data into a normalized wage rate for each occupation hourly and monthly. It is available on <http://www.nber.org/oww/> Last visited on August 20, 2017.

³⁸ Definition provided by the World Bank. Available on <http://data.worldbank.org/indicator/NY.GNP.PCAP.CD> Last visited on August 20, 2017.

RANIS; STEWART; RAMIREZ, 2000). Additionally, the national income has also been found to contribute, even though it has been claimed that for this end, national income should be well distributed among the population (ANAND; SEN, 2000; RANIS; STEWART, 2000).

In order to address the area of access to a long and healthy life, three indicators are used: life expectancy at birth, government expenditure in health, and births attended by health skilled personnel. Data for life expectancy at birth comes from the World Development Indicators and measures the average number of years that a newborn is expected to live if the patterns of mortality at the time of their birth stay equal throughout their life. Data for government expenditure in health are derived from the World Development Indicators and it measures the amount of money that a government destines for health in a given country at a given year. The amount presented is the government expenditure as percentage of the total government expenditure and it includes recurrent and capital spending from government budgets, external borrowings and grants, donations from international agencies and nongovernmental organizations, and social health insurance funds³⁹. Data for the births attended by skilled health personnel is derived from the World Health Organization. The data represents the percentage of live births that are attended by a person who is considered to be a health professional, such as a midwife, doctor or nurse, and who has received education and training in the skills needed to manage a normal pregnancy, childbirth and postnatal period. It excludes traditional birth attendants⁴⁰.

In order to address the area of education, enrollment in primary, secondary and tertiary education according to gender parity index is used in order to take into consideration the education of girls *vis-à-vis* boys, as well as government expenditure in education. Data on the enrollment in school are derived from the World Development Indicators. School enrollment in primary, secondary, and tertiary education is the ratio of total enrollment in a given country and a given year. School enrollment as gender parity

³⁹ Definition provided by the World Bank, available on <http://data.worldbank.org/indicator/SH.XPD.PUBL.GX.ZS> Last visited on August 20, 2017.

⁴⁰ Definition provided by the World Health Organization, available on http://www.who.int/gho/maternal_health/skilled_care/skilled_birth_attendance_text/en/ Last visited on August 20, 2017.

index is the ratio of girls to boys enrolled at a primary, secondary, and tertiary level in public and private schools.

Table 6 – Descriptive Statistics

<i>Variable</i>	<i>Obs</i>	<i>Mean</i>	<i>Std. Dev.</i>	<i>Min</i>	<i>Max</i>
<i>Year</i>	966	1992.5	13.28279	1970	2015
<i>High-skilled</i>	966	1523.937	4755.964	14	107950
<i>Low-skilled</i>	966	13226.3	43434.13	26	910754
<i>Remit_gdp</i>	852	3.021408	4.83064	0	27.39
<i>Wages</i>	409	623.3145	1178.487	7.443333	9250.669
<i>Employment</i>	855	11.47	17.94	0.43	94.97
<i>GNI</i>	866	1.83E+13	6.59E+13	4.05E+09	5.41E+14
<i>Freedom</i>	924	3.368506	1.5555	1	7
<i>School enrollment primary (GPI)</i>	888	0.971823	0.049606	0.69788	1.14982
<i>School enrollment secondary (GPI)</i>	828	1.059914	0.202953	0.628049	3.02219
<i>School enrollment tertiary (GPI)</i>	844	0.978025	0.387418	0.175558	2.53765
<i>Government Expenditure in Education</i>	783	3.596247	1.848595	0.422483	14.05908
<i>Life Expectancy</i>	945	67.65205	7.082813	45.65556	81.4962
<i>Government Expenditure in Health</i>	945	5.968423	1.730484	3.05634	12.6305
<i>Births by Health Personnel</i>	500	80.9678	22.42142	20.6	100
<i>Net Migration</i>	966	-116377	402891.5	-1844707	9500000
<i>IMF loans</i>	920	0.228261	0.41994	0	1
<i>MEPV</i>	903	0.344408	1.216065	0	6
<i>GDP growth</i>	958	3.364979	4.430585	-26.47	19.69
<i>Population</i>	966	2.16E+07	3.67E+07	695561	2.08E+08
<i>Trade_gdp</i>	920	61.17168	37.18448	10.33744	280.361
<i>Polity</i>	945	3.267725	6.513616	-10	10
<i>Sanctions</i>	819	0.20757	0.405815	0	1
<i>FDI</i>	835	2.393229	3.029859	-10.0817	39.80924
<i>Homicide Rate</i>	608	21.58023	21.40145	1.52	139.1321

Source: Prepared by the author based on the database used for the analysis

Data on government expenditure on education is derived from the World Development Indicators and it measures the general government expenditure on

education as percentage of the GDP. It includes recurrent and capital spending from government budgets, as well as transfers from international sources.⁴¹

6.1.3. Control Variables

The following variables are controls that are considered to be associated with human development. Major episodes of political violence (MEPV) measures the occurrence of international or domestic armed conflicts that directly affect human development of the population who suffers it (COLETTE, 2010). It is expected to have a negative effect on all the dependent variables. The data come from the Center for Systemic Peace⁴² and are coded as 1 for those years where international or domestic conflict is ongoing, and 0 otherwise. GDP growth, on the other hand, is expected to have a positive impact on all the dependent variables given that the economic expansion of a country should impact positively the access to a decent standard of life, more access to education and more access to health (RANIS; STEWART; RAMIREZ, 2000). The data are derived from the World Development Indicators and measure the annual percentage growth rate of the GDP at market prices. The data are presented in 2010 United States dollars.

Population measures all the residents in a given country for a given year. Population growth has been proven to have mixed effects depending on the circumstances of each country (AHLBURG; KELLEY; MASON, 1996). The data comes from the United Nations Population Division. In order to control for the people who get out of the country and the people who get in, and to some extent control for the return migration, net migration is used. The variable measures the total number of immigrants less the total number of emigrants in a given country for a given year. The data are derived from the United Nations Population Division and it represents quantities of people.

⁴¹ Definition provided by the World Bank, available on <http://data.worldbank.org/indicator/SE.XPD.TOTL.GD.ZS> Last visited on August 20, 2017.

⁴² Major Events of Political Violence 1946-2016, compiled by Dr. Monty Marshall, Director of the Center for Systemic Peace. Available on <http://www.systemicpeace.org/warlist/warlist.htm> Last visited on August 21, 2017.

The literature has documented some adverse consequences and some good consequences that IMF conditionality can have for diverse items in the human development of the third world countries (PASTOR, 1987). The data are coded as 1 for those years when a given country has had a lending arrangement with the IMF, and 0 otherwise⁴³. Trade is the sum of exports and imports of goods and services measured as a share of the GDP. Trade has been proven to be positively associated with future increases in social welfare (DAVIES; QUINLIVAN, 2006). However, the world systems theory sees migration as a natural outcome of capitalism, globalization and international trade, and it argues that trade between strong and weak economies will harm the weak economy causing stagnation, which translates into lagging living conditions increasing the incentive for migration (AMANKWAA, 1995). Trade expansion has also been found to affect standards of living, and therefore, it has been found to be a driver of migration (STANLEY, 2010).

Polity represents the regime type of a given country in a given year. The literature has found that democratic regimes are associated with a higher human development rate (TSAI, 2006; GERRING; THACKER; ALFARO, 2012). The data comes from Polity IV's classification which ranks countries from -10 for the most authoritarian regimes, and +10 for the most democratic ones⁴⁴. Economic sanctions have also been proven to affect badly the assets of a country, and therefore, the country should invest less on public policy aimed at the improvement of the human development (PEKSEN, 2011). The data come from Hufbauer *et al* (1990) and are coded as 1 in those years where there has been a sanction on a given country, and 0 otherwise.

FDI considers the private capital inflows in a given country in a given year in the form of productive assets. It has been proven to contribute positively to the economic and human development of the country that receives this money (USTUBICI; IRDAM, 2012). It has also been proven to improve the skills of the native population (COTTIER; SIEBER-GASSER, 2015). The data come from the World Development Indicators. The homicide

⁴³ IMF Lending Arrangements dataset. Available at <http://www.imf.org/external/np/fin/tad/extarr1.aspx> Last visited on August 21, 2017.

⁴⁴ Polity IV Project: Political Regime Characteristics and Transitions, 1800-2015. Covers the major independent states with a population of 500,000 or more for 167 countries. Available on <http://www.systemicpeace.org/polityproject.html> Last visited August 21, 2017.

rate of a country is expected to adversely affect its human development given all the economic and social costs that crime represent for a country (DELISI et al., 2010). The data are expressed as the rate of homicides per 100,000 inhabitants for a given country in a given year and are derived from the United Nations Office on Drugs and Crime.⁴⁵ Lastly, a dummy variable is included as a control variable for the shock of increased migration of 1990, taking the value of 1 for 1990, and 0 for the rest of the years.

6.2. Estimation Methodology

I analyzed the data through Time Series Cross Sectional (TSCS) Feasible Generalized Least Squares (xtgls) in order to test the impact of high-skilled, low-skilled emigration, and remittances on the human development of the sending countries. This methodology was chosen as it allows for an auto regressive term of nature AR(1) in the model, and it assumes correlation among the independent variables and panels, as well as heteroscedasticity⁴⁶. The general base model is as follows:

$$\Delta y_{it} = \alpha_t + \Delta\beta_1 y_{it-1} + \Delta\beta_2 X_{it} + \Delta\beta_3 X_{2it} + FE_{it} + \epsilon_{it} \quad (1)$$

Where y_{it} is each variable representing the concept of human development. A lagged measure of human development is included on the right side of the equation in order to account for the previous effects. X_{it} is each variable representing the concept of migration. X_2 represents the control variables among which there is a dummy variable that controls for the 1990 shock observable in the graphs presented in Chapter 2. FE_{it} represent year fixed effects⁴⁷. Panel-specific autocorrelation structure is used as it is

⁴⁵ United Nations Office on Drugs and Crime, Global Study on Homicide (2013). Available on http://www.unodc.org/documents/gsh/pdfs/2014_GLOBAL_HOMICIDE_BOOK_web.pdf Last visited on August 21, 2017.

⁴⁶ Stata Manuals, 2015. Last accessed October 9, 2015. Available on <http://www.stata.com/manuals13/xtxtgls.pdf>

⁴⁷ Since the command xtgls for stata does not include the option for fixed effects or random effects I consider that differencing the variables once would take the effect of those unobserved unit level effects, and year fixed effects are used in the model. From the options available for this command, I considered that the option for panel-specific autocorrelation - corr(psar1) - would be applicable as each country in the sample is different from each other and they would follow a different AR1 process. This was decided after studying each variable (Appendix 12), where it can be seen that the data on each country are different from one another.

assumed that each country has errors that follow a different AR1 process. Additionally, the panels are considered to be heteroskedastic⁴⁸. As a robustness check, the models were also run using Panel Corrected Standard Errors, using the option for AR1 panel-specific autocorrelation structure given that the coefficient of the AR1 process would not be the same for each panel. It is assumed, by default for PCSE, that the disturbances are heteroskedastic and correlated across panels⁴⁹⁵⁰.

Furthermore, the models are constructed with one dependent variable and one independent variable with the corresponding controls. For example, for the effect of migration on employment, high-skilled emigration and control variables are used in one model, low-skilled emigration and controls are used in another model, and remittances with controls are used in another model. This is because there is some correlation among the main independent variables, and so they are separated into different models in order to avoid multicollinearity⁵¹.

6.3. Long-run estimates and endogeneity

The data used for this research are annual. However, migration is a process that may take some time in order to affect the human development of the sending countries in a meaningful way. In other words, migrants usually do not establish and find a job immediately in the receiving country. Therefore, it would be difficult for them to remit immediately. In order to show the effect of migration on human development of the sending countries in the long-run, I re-estimated the models using 5-year-averages for the human development variables. In addition to showing a long-run effect, this methodology would also help with the inherent problem of endogeneity (RAZIN; SADKA, 1999; BUGAMELLI; PATERNO, 2009). This way, we are estimating the effect of one year

⁴⁸ Stata Manuals, 2015. Last accessed October 9, 2015. Available on <http://www.stata.com/manuals13/xtxtgls.pdf>

⁴⁹ Stata Manuals, 2015. Last access November 27, 2017. Available on <https://www.stata.com/manuals13/xtxtpcse.pdf>

⁵⁰ The command xtpcse for stata does not include the option for fixed effects or random effects, just as the xtgls. So the strategy for the xtgls was the same here. The information about the options available for xtpcse are available on <https://www.stata.com/manuals13/xtxtpcse.pdf> Last visited December 6, 2017.

⁵¹ Appendix 11 shows the analysis of correlation among the dependent, independent, and control variables used in this research.

on the 5-year-average. In other words, the effect of one year on the accumulated effect of 5 years is being estimated, giving us a long-run effect. The models were estimated using Feasible Generalized Least Squares and Panel Corrected Standard Errors in order to compare the results with those from a yearly basis.

The models were estimated with period fixed effects (each period includes the average of 5 years) and panel-specific autocorrelation structure. Furthermore, after reducing the database into 5-year-averages, 211 observations were left for the analysis. Furthermore, I am considering 5 years as a long-run because estimating more than that, for example a 10-year-period, would complicate the analysis. That is, many things can happen in 10 years and it would be difficult to isolate the impact of emigration only on the human development over 10 years or more. This is why, I am considering 1 year as a short-run and 5 years as long-run.

The empirical analysis is to test the impact of migration on the human development in Latin America. But what if the very same human development levels are the root cause of migration in the first place? This raises a possible problem of endogeneity. In other words, low levels of human development can cause migration. Other models that do not specifically address endogeneity might fall short at trying to address this problem making the estimators biased. Another viable option is an econometric approach based on instrumental variables, which would isolate those sources of exogenous variation allowing to calculate the true effect of migration on the human development of the sending countries (LOZANO; STEINBERGER, 2010).

For that, I re-estimated the models according to the Generalized Method of Moments-IV approach (GMM – Instrumental Variables). This approach controls for endogeneity by including lagged levels of the independent variables as instruments (BLUNDELL; BOND, 1998; BUCH; KUCKULENZ, 2010). According to Arellano and Bond (1991), the necessary instruments for the model would be internal. In other words, the instruments to be used can be based on the lagged values of the variable that is being instrumented.

In addition to the lagged independent variables, two external instruments were included⁵². The first external instrument is the ratio of the distance from each country in the sample to the United States, weighted by the GDP growth of the United States (DOYLE, 2015). Given that migrating is costly, especially if the receiving country of interest is far away, the literature has proved that the greater the distance between sending and receiving country, the lower the migration flows will be (SINGER, 2012). Additionally, the economic growth in the destination country would attract migrants. Hence, both distance to the destination country and its economic growth would help explain the quantity of migrants and the remittances received in the sending countries. On the other hand, there is no theoretical explanation for an association between the distance from each Latin American country and the United States or its economic growth, on one side, and the level of human development in the sending countries on the other side. In effect, this instrument is correlated with high-skilled emigration (0.42), low-skilled emigration (0.41), and remittances (0.53), which is an important correlation.

The second instrument is the coastal area of the countries in the sample, as the coastal area of a country is positively correlated with the facilitation of migration, and consequently, with emigrants and the reception of remittances (ESCRIBÀ-FOLCH; MESEGUER; WRIGHT, 2015). This instrument is correlated with high-skilled emigration (0.45), low-skilled emigration (0.62), and remittances (0.43), an important correlation. The Hansen-Sargan test for over-identifying restrictions was performed after each regression in order to assess the validity of the instruments (ROODMAN, 2006; BUCH; KUCKULENZ, 2010). The results of the GMM-IV methodology are in Appendix 13 and were computed with robust standard errors.

The authors that work with migration and remittances agree that these data are subject to measurement error. This was one of the reasons why I include only official data and regular migration. However, even when working with official data, the measurement error is a great risk. Hence, in order to account for this and analyze the data as well as

⁵² Additional instruments help in those cases where there are “weak instruments,” which is a rather common problem in GMM estimations (GERMENJI; BEKA; SARRIS, 2001).

possible, rigorous analysis is required. This is why I tried to exhaust the appropriate methods and statistical techniques.

7. HUMAN DEVELOPMENT IN LATIN AMERICA. DESCRIPTIVE STATISTICS AND ANALYSIS OF MICRO LEVEL DATA

“You cannot predict the outcome of human development.

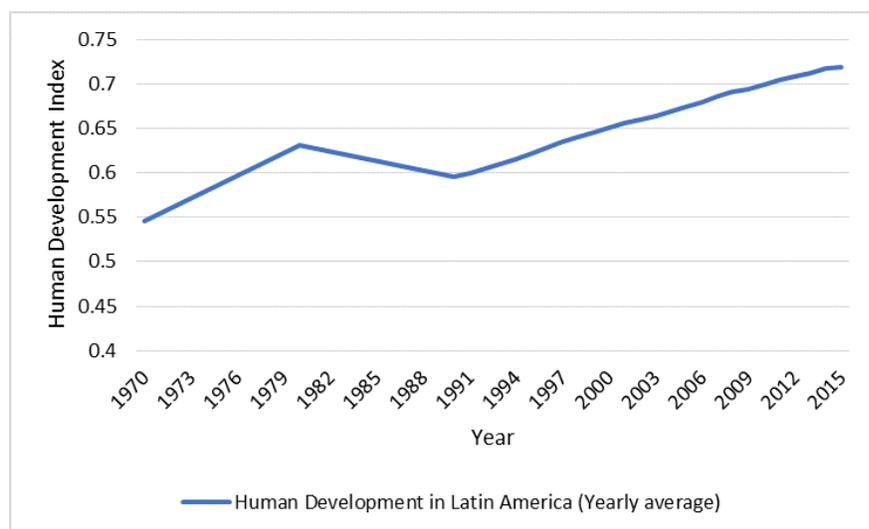
All you can do is, like a farmer, create the conditions under which it will begin to flourish.”

(Ken Robinson)

In general, human development, as measured by the Human Development Index, has improved in Latin America during the years studied in the sample. Data from the UNDP shows in Graph 12 that there was an increase from 1970 to 1980, and a decline in the next decade, where probably the Great Recession was a cause for this decline in the early 1980s. Another cause for this decline would probably be the major conflicts that erupted in the region during that decade. However, from the 1990s onwards, human development has improved. This coincides with Prados de la Escosura's research (2015) in which he develops an index for human development as an alternative to the Human Development Index from the UNDP. The author also finds a similar trend in the human development in Latin America.

Unfortunately, this increase has not been even for all the countries in the sample. Appendix 9 shows the human development by country, where it can be seen that while countries such as Chile, Argentina, Uruguay and Cuba show a high human development all along, others such as Haiti show a low human development throughout the period studied. However, it can be observed a general upward tendency in all the countries, albeit some ups and downs.

Graph 12 - Human Development in Latin America (Yearly Average), 1970-2015



Source: Human Development Index. Human Development Reports, UNDP 1990-2015

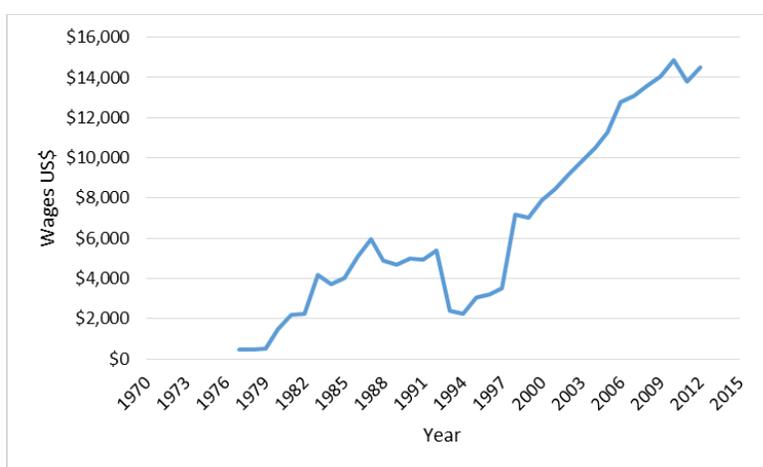
On the other hand, when looking at human development in its separate areas, we can also see improvements. For the area of a decent standard of life, the variables used are wages, employment, Gross National Income, and Freedom. When analyzing a decent standard of life in Latin America, the data show that wages have increased since 1994, even though there was a small drop in 2009, probably because of the financial crisis of those years. From 1976 to 1988, there is also an increase and a sharp drop in 1991 (See Graph 13). Employment has also steadily increased in the whole Latin American region (See Graph 14).

When looking at survey data from the LAPOP⁵³, in 2010, 22 percent of people said their wages had increased, 50 percent said that they remained the same, and 28 percent responded that their wages had decreased. On the other hand, by 2014, 23

⁵³ The data used is a consolidated of all the surveys available from 2004 to 2014. The merged dataset comprises 156,736 observations. For 2004, there is data available for Bolivia, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua and Panama. For the years 2005, 2007, 2009, 2011, and 2013, there is data available only for Colombia. Therefore, these years were disregarded for lack of data about more countries. For the year 2006, there is data for Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guyana, Haiti, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. For the year 2008, there is data for the same years as 2007, plus Argentina. For 2010, 2012, and 2014, there is data available for the same countries as in the year 2008.

percent of people said that their wages had increased, 50 percent said that they had remained the same, and 27 percent of people said their wages had decreased. From these data, it can be implied that at least wages have not decreased so much as compared to the first year of the question. In fact, according to the respondents, their wages either increased or remained the same. This might not be so good news when the prices of the basic basket of food have increased but the wages remain the same.

Graph 13 - Wages in Latin America (Yearly Average), 1970-2015

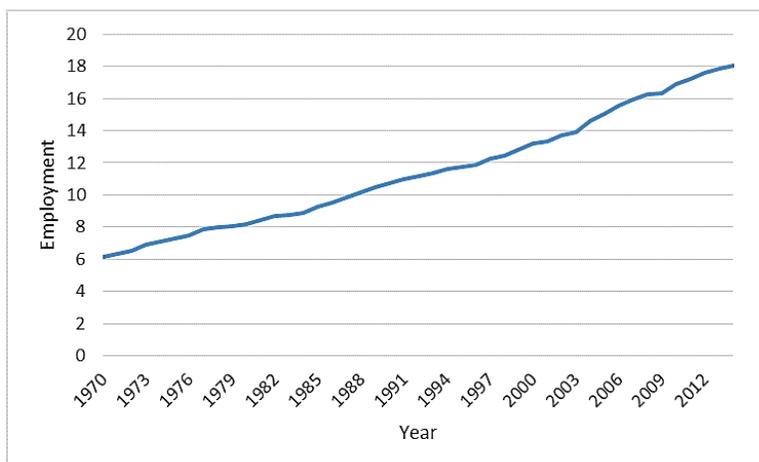


Source: Occupational Wages Around the World Database.
Derived from ILO October Inquiry Database. .2012

When cross tabulating those who receive remittances with the earned wages of their households, 68 percent of the households that receive remittances reported to earn wages between US\$0 and US\$270, 28 percent reported to earn wages between US\$271 and US\$780, while only 4 percent reported to earn wages above US\$780. It can be implied from these data that the majority of the households that receive remittances in Latin America are among those who earn less money, meaning that this could be one of the main reasons why somebody in that household migrated in the first place. When looking at the data by countries, remittance receiving households were in the bottom of the income distribution in Mexico, Guatemala, El Salvador, Honduras, Panama, Paraguay, and Haiti. Remittance-receiving households in the other countries were more evenly distributed across the income distribution.

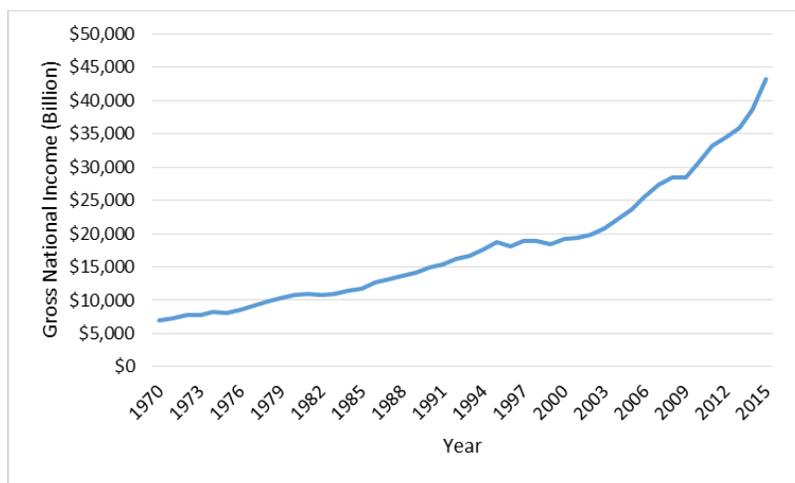
On the other hand, from those households that reported to receive remittances, 20 percent reported to be unemployed, 63 percent reported to have a job, and 17 percent were students or retirees. It can be implied that remittances help to get an extra income in almost 40 percent of the households with unemployment, students and retirees.

Graph 14 - Employment in Latin America (Yearly Average), 1970-2015



Source: Penn World Table.

Graph 15 – Gross National Income in Latin America (Yearly Average), 1970-2015



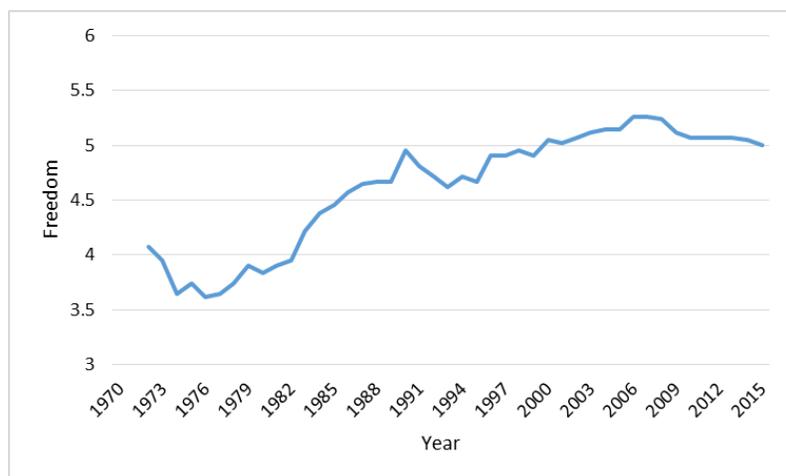
Source: World Development Indicators, 2016.

The Gross National Income, which is one of the variables examined in the Human Development Index, also shows a constant increase all along the analyzed period (See Graph 15). This variable is of importance because it entails all the value by all producers within a country plus the income obtained by nationals in other countries. In other words, it measures the output of goods and services of citizens of a given country, regardless of where they are.

In general, it seems like more and more Latin Americans are more satisfied with their lives. Survey data from LAPOP show that by 2004, 84 percent of Latin Americans felt satisfied with their lives, while by 2014 this satisfaction increased to more than 88 percent. Even though satisfaction with their own lives is a very subjective item, it can still show that most of people have learned to make the best even under stressful conditions, if we compare Latin America with other regions of the world that have better conditions. Nevertheless, there is a small portion of the population who does not feel so satisfied. When analyzing what countries express most and least life satisfaction, Guatemalans, Costa Ricans, Panamanians, Colombians show more satisfaction. On the other hand, Haitians, Bolivians, and Guyanese are the least satisfied with their lives.

This study also takes into consideration the variable of freedom, which in the opinion of the author, is a very important variable that should be analyzed when studying a decent standard of life. As an example of the importance of freedom, Cuba can be mentioned. Data from Cuba show that the country has a highly and efficient universal health care, a literacy rate of 99.8 percent, and free education. This accounts for most of Cuba's general human development, which is one of the highest in the Latin American region, in spite of its low economic performance. One would think this is great. But for many Cubans, migrating is preferable. Why? Because people value their civil and political freedoms. Not including freedom in the analysis of human development would imply that it is not human development, but the basic needs approach only, given that human development implies the expansion of capabilities and freedoms (PRADOS DE LA ESCOSURA, 2015). In this sense, data from Freedom House on civil liberties and political rights (Graph 16) show that, in general, freedom has improved in Latin America in the analyzed period of time. However, there is a small decline since 2006.

Graph 16 - Freedom in Latin America (Yearly Average), 1970-2015



Source: Freedom House, 2016.

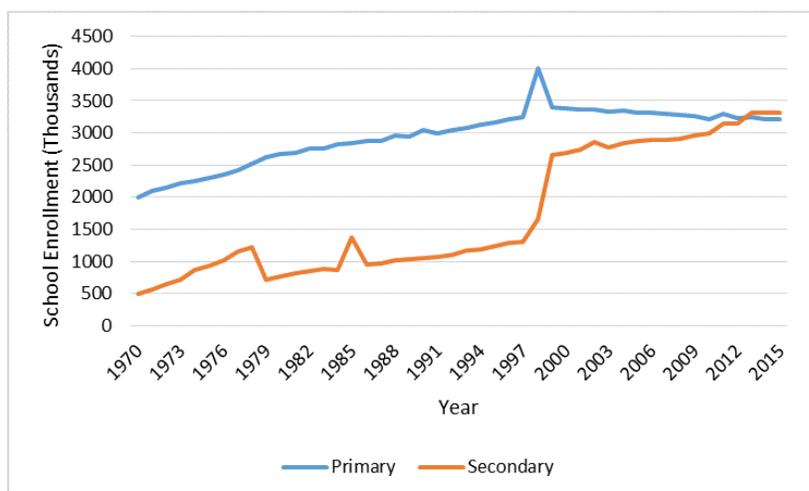
Worrying data comes when people are asked about their perceptions on the protection to the basic human rights in Latin America. In 2004, LAPOP data show that 47 percent of Latin Americans perceived that there was not enough protection to the basic human rights in general in their countries. This decreased to 45 by 2006, 45 by 2008, 41 by 2010, and increased again to 43 by 2012, and 47 by 2014. It is worrisome that this percentage is so high. From the households that reported to receive remittances, 51 percent perceived that there was not enough protection to the basic human rights by 2014. The perception of not having enough protection to the basic human rights is a little higher among those households that receive remittances, compared to those who do not.

Gangs and common crime are one of the main reasons for Latin Americans to emigrate. LAPOP data show that 59 percent of Latin Americans reported to have presence of gangs in their neighborhoods, against a 41 percent who reported not to have this kind of activity near home. This response was higher in Mexico, Guatemala, El Salvador, Panama, and Brazil. While countries such as Colombia, Uruguay and Guyana reported less gang activity in their neighborhood. It is difficult to feel free when gang presence is so normal and the majority of crimes is unsolved.

On the other hand, when talking about access to education in Latin America, the data show that enrollment in primary school increased until 1990, and from there it has

been rather stable, with a small decrease in 1998 and another decrease in 2012 (See Graph 17). However, data about school enrollment as Gender Parity Index (GPI – it measures the relative enrollment proportion of girls by the number of boys enrolled (KORONKIEWICZ, 2008)) show that enrollment in primary school has been rather stable all along the analyzed period of time, with an important increase in 1989 and another one in 1993. Enrollment in secondary school was higher in the 1970s, it decreased in the 1980s and increased again in 1997. Since then, it has been rather stable. On the other hand, enrollment in tertiary school has had an enormous exponential increase with an important peak in 1982 and 2000 (See Graph 18).

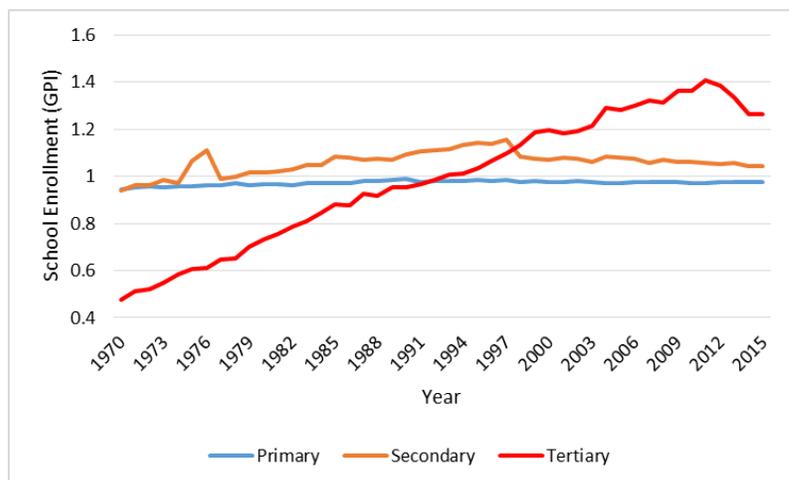
**Graph 17 – School Enrollment in Latin America
(Yearly Average), 1970-2015**



Source: World Development Indicators, 2016.

Data from LAPOP show that 95 percent of the households with remittances and children in the house, have their children in school, compared to the 65 percent in households with no remittances. This suggests that remittances help a lot for the school enrollment in Latin America. This could also suggest that somebody in that household had to migrate in order to increase the chances of their children to go to school. Furthermore, 97 of the households that receive remittances reported that they would support the education of their children at least until their high school, compared to a 46 percent in the households without remittances.

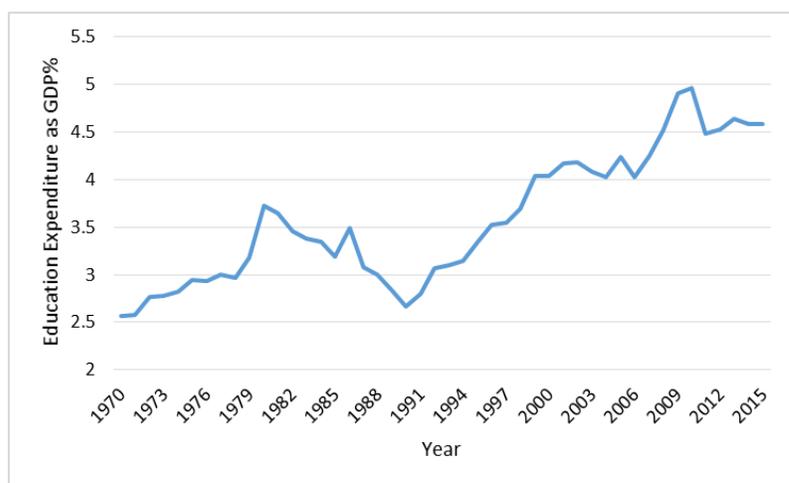
Graph 18 - School Enrollment in Latin America GPI (Yearly Average), 1970-2015



Source: World Development Indicators, 2016

Lastly, government expenditure on education has had many ups and downs during the period studied with a very important increase in 1997, 2003 and 2010. In 2001, there was a sharp decrease, as can be seen in Graph 19.

Graph 19 – Government Expenditure on Education in Latin America (Yearly Average), 1970-2015

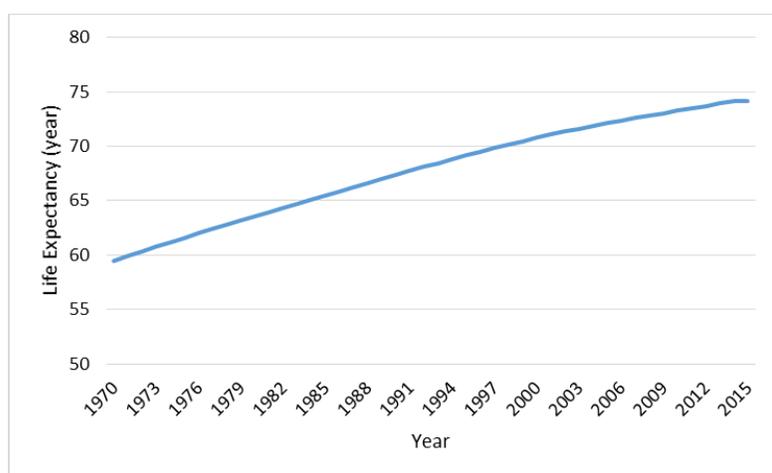


Source: World Development Indicators, 2016

LAPOP data show that by 2012, only 23 percent of the population perceived that the quality of the public education was good, while 54 percent perceived it as average, and 23 percent as bad. Only 11 percent of Guatemalans perceived the quality of their public education as good, while 64 percent perceived it as average. Costa Ricans, on the other hand, 47 percent of them perceived the quality of public education as good, while 48 percent perceived it as average. Similarly, 35 percent of Uruguayans perceived the quality of the public education as good, while 48 percent perceived it as average. It is expected of countries such as Costa Ricans and Uruguayans to perceive they have a better public education, when compared to those such as Guatemalans.

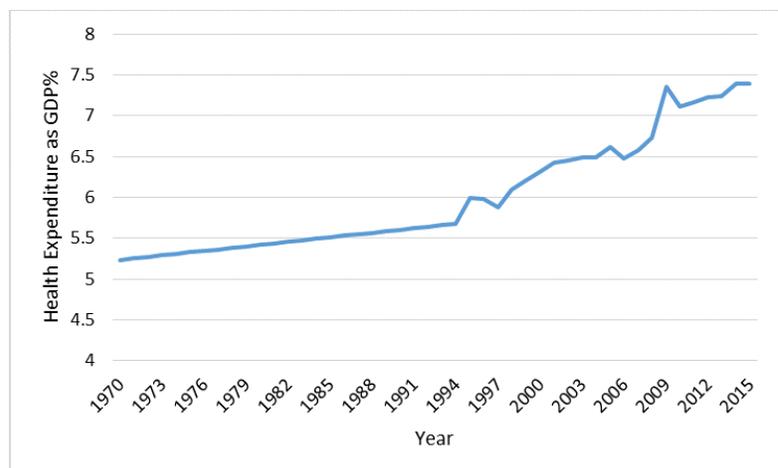
When talking about the the access to a long healthy life in Latin America, data show that life expectancy has increased all along the studied period. In 1970, life expectancy was of 59 years, while by 2015, it increased to 74 years (See Graph 20). Government expenditure on health had a steady increase since 1970 until 1994, and since then, it has increased more, showing a few periods of decay in 1997, 2006 and 2010 (See Graph 21). Lastly, Graph 22 shows how the births attended by skilled health personnel in Latin America had a very important increase in 1980, especially since 1995.

**Graph 20 – Life Expectancy in Latin America
(Yearly Average), 1970-2015**



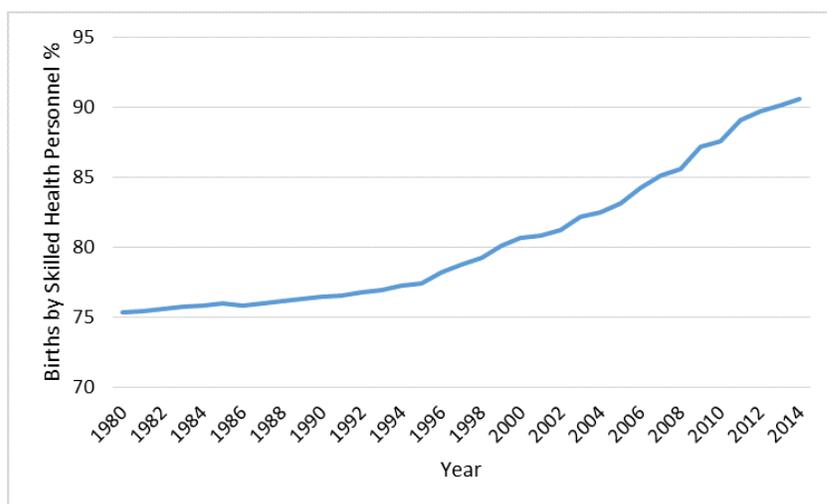
Source: World Development Indicators, 2016

Graph 21 - Government Expenditure on Health in Latin America (Yearly Average), 1970-2015



Source: World Development Indicators, 2016

Graph 22 – Births Attended by Skilled Health Personnel in Latin America (Yearly Average), 1980-2014



Source: Economic Commission for Latin America and the Caribbean. Cepalstats databases. 2017

LAPOP data show that about 50 percent of Latin Americans are satisfied with the public medical and health services. However, countries such as Costa Rica, Panama, Ecuador, and Uruguay seem to be more satisfied with their health care services. On the other hand, Guatemala, Colombia, Peru, Brazil and Haiti are the countries with the lowest satisfaction with their public health services. These perceptions do not vary much when comparing remittance-receiving households from the not receiving ones.

8. STATISTICAL ANALYSIS AND DISCUSSION

“If the statistics are boring, then you’ve got the wrong numbers.”

(Edward Tufte)

8.1. Migration and the access to a decent standard of life

This section assesses the impact of emigration on various human development outcomes on the area of a decent standard of life. As described in section 6.1.2, the variables analyzed here are wages, employment, GNI, and freedom. Each of the independent variables (high-skilled emigration, low-skilled emigration, and remittances) is analyzed for its effect as a first difference and as a one-year-lag in order to see the effect of the previous period.

Table 7 shows the results for the effect of emigration on the access to a decent standard of life. The first four columns show the results of the analysis through Feasible Generalized Least Squares (Model 1). The following columns show a re-estimation through Panel Corrected Standard Errors (Model 2). Models 3 and 4 correspond to models 1 and 2 re-estimated through the 5-year-average, respectively. GMM IV method (Model 5) is in Appendix 13.

The results presented are for the effect of high-skilled and low-skilled emigration, as well as remittances⁵⁴. The results obtained are, in general, consistent across all the methods used. In the case of wages, for example, high-skilled and low-skilled emigration show positive short-run effects in models 1, 2, and 5. These results imply that wages go up as high-skilled and low-skilled emigration increases.

⁵⁴ Control variables are not presented on the tables in order to save space. Full results are with the author.

Table 7 - Effect of Migration on the Access to a Decent Standard of Life

	<i>XTFGLS (Model 1)</i>				<i>XTPCSE (Model 2)</i>				<i>XTFGLS (5-year-average) (Model3)</i>				<i>XTPCSE (5-year-average) (Model4)</i>			
	Wages	Employ	GNI	Freed	Wages	Employ	GNI	Freed	Wages	Employ	GNI	Freedom	Wages	Employ	GNI	Freed
High-Skilled_d	0.067*** (0.03)	0.042** (0.02)	-0.023*** (0.01)	-0.045 (0.04)	0.066*** (0.02)	0.004* (0.00)	-0.003 (0.00)	-0.017** (0.01)	0.101** (0.00)	0.005** (0.00)	0.009** (0.00)	0.013* (0.01)	0.100*** (0.01)	0.006*** (0.00)	0.010** (0.00)	0.013* (0.01)
High-Skilled_I	0.036 (0.02)	0.057*** (0.01)	-0.033*** (0.01)	-0.075** (0.03)	0.035*** (0.01)	0.003*** (0.00)	-0.005** (0.00)	-0.002 (0.00)	0.036** (0.01)	0.002** (0.00)	0.005** (0.00)	0.007** (0.00)	0.035*** (0.01)	0.003*** (0.00)	0.005** (0.00)	0.006 (0.00)
Low-Skilled_d	0.160** (0.07)	0.046*** (0.01)	-0.022 (0.03)	-0.309** (0.16)	0.160*** (0.04)	0.004 (0.00)	-0.002 (0.00)	0.004 (0.01)	0.080 (0.06)	0.006*** (0.00)	0.011*** (0.00)	0.014*** (0.01)	0.091 (0.54)	0.004* (0.00)	0.013** (0.00)	0.014* (0.01)
Low-Skilled_I	0.221*** (0.05)	0.025*** (0.01)	-0.044** (0.02)	-0.116 (0.10)	0.221*** (0.03)	0.002* (0.00)	-0.001 (0.00)	0.002 (0.00)	-0.060 (0.11)	0.000 (0.00)	0.005*** (0.00)	0.005 (0.00)	-0.082 (0.11)	0.000 (0.00)	0.005** (0.00)	0.006* (0.00)
Remittances_d	-0.028 (0.03)	0.015*** (0.00)	-0.017** (0.01)	0.002 (0.04)	-0.028* (0.02)	0.000 (0.00)	-0.006* (0.00)	0.021*** (0.01)	0.028** (0.01)	0.007** (0.00)	0.000 (0.00)	0.017*** (0.01)	-0.004 (0.02)	0.007** (0.00)	0.002 (0.01)	0.022** (0.01)
Remittances_I	-0.029* (0.02)	0.012*** (0.00)	-0.017*** (0.00)	0.037 (0.03)	-0.029*** (0.01)	0.000 (0.00)	-0.003*** (0.00)	0.003*** (0.00)	0.014 (0.01)	-0.004 (0.00)	0.007** (0.00)	0.002 (0.00)	0.008 (0.01)	-0.004 (0.00)	0.007** (0.00)	0.004** (0.00)

Standard errors in parentheses. *p<0.10, **p<0.05, ***p<0.01

Having in mind the theoretical model for employment and wages in section 5.2, wages would increase in all the described points of the graph. In other words, theoretically, if the demand for labor is kept equal in the sending countries after some emigration of workers, the labor supply should decrease as unemployment decreases, and wages should increase as a response to the lowest productivity after emigration, due to labor scarcity. If the demand for labor increases, as any expanding or growing economy, but emigration continues to take workers away, labor supply would be even lower than the pre-migration point and wages should increase even more. Nevertheless, if a given migrant sending country has a surplus of labor, production would not be affected given that the required labor would still be in the country, and even though unemployment should decrease, wages would not be affected because there is no labor scarcity, and therefore, productivity would not be hurt (FIGUEROA, 2016a).

In the case of Latin America, the analysis shows that the emigration of both, high-skilled and low-skilled workers helps increase wages and employment in the sending countries. Therefore, theoretically, freer migration would cause an increase in wages in Latin America triggering a redistribution of income and inequality would very likely decrease in the long run (FIGUEROA, 2016a). Additionally, migration can have positive effects by reducing competition for limited jobs when there are high levels of unemployment (Koser, 2007). In other words, competition for scarce jobs reduces and the high-skilled workers that remained in the sending countries might experience an upward in wages. Low-skilled emigrants, on the other hand, were expected to behave similarly, especially if a given sending country experiences surplus of labor. Therefore, low-skilled emigration might also help reach an increase in the wages of the fellows behind. That is, with less population, even low-skilled jobs would see an increase in their wages as labor becomes scarcer (ROSENZWEIG, 2005).

These results would mean that migration works as a way out for those countries that have high unemployment rates and those that have low wages. The findings in this research are similar to those of Figueroa (2016a), who studied Central America and Mexico and found that an increase in high-skilled and low-skilled emigration leads to higher employment. Additionally, the author found that an increase in high-skilled

emigration leads to higher wages in her sample. However, remittances have a negative short-run effect in models 1, 2, and 5 on wages, and the contemporary short-run effect was not statistically significant. It seems like remittances do not necessarily translate into higher wages immediately. Some time would probably be needed for adjustment between lower productivity and the increase of wages caused by labor scarcity. In the case of employment, remittances show a positive effect in models 1 and 5. Indeed, remittances could help start new small companies that create more employment in the sending countries.

With respect to GNI, there seems to be short-run negative effects in all the three measures of migration in models 1 and 2. This might be due to the negative shock that the economy faces when the work force decreases as a result of emigration, high-skilled or low-skilled, given that those people who emigrate stop, at least temporarily, contributing to their economy. On the other hand, even though the negative short-run impact of remittances is counterintuitive, it could be explained by time itself. In other words, it would take some time for remittances to be spent in consumption and make a positive impact on the national income of the sending countries when there are priorities such as health care and education in the household. And even when investment in health and education could lead to a higher national income, this would only be in the long-run. Furthermore, there is research that points out that remittances can cause the “Dutch disease” decreasing competitiveness of the national economy and increasing the economic costs on exports (AMUEDO-DORANTES; POZO, 2004; ACOSTA; LARTEY; MANDELMAN, 2009), therefore, an increase in remittances could adversely affect national income.

In the case of freedom, it was somewhat striking that the high-skilled and low-skilled emigration showed a negative effect in models 1 and 2. The results are also negative in model 5 for the high-skilled emigration and positive for the low-skilled emigration, albeit without statistical significance. High-skilled people usually push hard for changes in civil and political freedoms, given their high knowledge and skills, and therefore, there could be a negative impact when these people stop doing it in order to emigrate. On the other hand, the low-skilled ones also push for changes in civil and

political rights through protests and diffusion of information, and when thousands of low-skilled workers emigrate, the short-run negative effect could be explained. For both of them, voice could operate as the preferred way of action, being exit the second one. Once abroad, they both can influence their relatives and friends back home, in an attempt to continue to fight for better civil and political freedoms, and even democracy. On the other hand, remittances show a positive impact in all the models, having statistical significance in model 2. This result implies that remittances can be used in order to advance civil and political rights, through individuals or migrant organizations, having an important immediate effect.

With respect to models 3 and 4, it can be observed that even the negative short-run effects turned positive in the long-run, as is the case of GNI and freedom, not rejecting hypotheses 3 and 4⁵⁵. This could mean that in the long-run, emigration ends up affecting positively the living standards of the sending countries. In the case of wages, the results showed positive effects for high-skilled emigration and remittances. On the other hand, in the case of the low-skilled emigration, the effect is positive but without statistical significance, partly rejecting hypothesis 1⁵⁶. This could mean that in the long-run, wages end up adjusting for the high-skilled sector, but not for the low-skilled one, which has only short-run positive effects. One explanation for this difference could be the nature of the national labor market. For example, those countries with a high rate of unemployment and a minimum low-skilled emigration would not experience an increase in wages because there would never be labor shortage. Therefore, companies would still offer the minimum wage and there would always be people willing to accept it. On the other hand, high-skilled emigration is usually more valuable in the sending countries, and when faced

⁵⁵ H3: Emigration is expected to affect positively the GNI in the sending countries in the long-run, through the influence that migrants themselves exercise through the expansion of capabilities proposed in section 5.3.

H4: Emigration is expected to affect positively the freedom in the sending countries in the long-run, through the influence that migrants themselves exercise through the exit option proposed in section 5.1 and through the expansion of capabilities proposed in section 5.3.

⁵⁶ H1: Emigration is expected to affect positively the wages in the sending countries in the long-run, through the balance of supply and demand proposed in section 5.2.

with the risk of losing valuable high-skilled workers, companies would be willing to pay more in order to avoid this brain drain. Additionally, the negative short-run effect of remittances is transformed into a long-run positive effect, probably through the creation of new jobs.

In the case of employment, both high-skilled and low-skilled emigration showed positive effects in the long-run, which could be evidence of employment adjusting after five years after both types of emigration, not rejecting hypothesis 2⁵⁷. On the other hand, remittances show a positive and statistically significant effect in the long-run, not rejecting hypothesis 12⁵⁸. With respect to GNI, the short-run negative effects of models 1 and 2 became positive in the long-run in models 3 and 4, evidencing that GNI would need some extra time in order to adjust and absorb the positive effects of remittances, not rejecting hypothesis 3.

With respect to freedom, both high-skilled and low-skilled emigration overcome the short-run negative effects and become positive in the long-run, not rejecting hypothesis 4. Remittances also show a consistent positive effect on freedom in the long-run, not rejecting hypothesis 12. As discussed above, once emigrants are in the receiving country, both high-skilled and low-skilled emigrants can influence their relatives and friends back home, in an attempt to continue to fight for better civil and political freedoms, and even democracy (MESEGUER; BURGESS, 2014; ESCRIBÀ-FOLCH; MESEGUER; WRIGHT, 2015; BARSBAI et al., 2017). Indeed, as emigrants acquire new knowledge about countries with more civil and political freedom, they transmit it to their relatives and friends in the sending countries through several communication channels. These social and political remittances can trigger a desire for change in the sending countries that can be translated into more demands for the incumbent government and protests that lead to expanded freedoms (BARRY et al., 2014).

⁵⁷ H2: Emigration is expected to affect positively the employment in the sending countries in the long-run, through the balance of supply and demand proposed in section 5.2.

⁵⁸ H12: Remittances are expected to affect positively the living standards, the access to a long healthy life, and the access to education in the sending countries in the long-run, through the influence that migrants themselves exercise proposed in section 3.3.

8.2. Migration and the access to a long healthy life

This section assesses the impact of emigration on various human development outcomes on the area of a long healthy life. As described in section 6.1.2, the variables analyzed here are the life expectancy at birth, births attended by skilled health personnel, and government expenditure on health. Each of the independent variables (high-skilled emigration, low-skilled emigration, and remittances) is analyzed for its effect as a first difference and as a one-year-lag.

Table 8 shows the effect of migration on the access to a long healthy life. The first four columns show the results of the analysis through Feasible Generalized Least Squares (Model 1). The following columns show a re-estimation through Panel Corrected Standard Errors (Model 2). Models 3 and 4 correspond to models 1 and 2 re-estimated through the 5-year-average, respectively. I would like to remind the reader that the GMM IV method (Model 5) is in Appendix 13. The results presented are for the effect of high-skilled and low-skilled emigration, and remittances.

In the first place, it was surprising to see a negative short-run effect of the three measures of migration on the whole area of a long health life. Even though the results are mixed, there are several negative short-run effects that were unexpected, rejecting hypothesis 9⁵⁹. In the case of life expectancy, for example, high-skilled and low-skilled emigration show a negative short-run effect. Remittances show a similar negative short-run effect. One explanation for this could be the high amounts of stress both on the emigrants and on their family that directly affects their health, and therefore, life expectancy. Naatus (2013) found a similar negative effect on his study about remittances in El Salvador. The author explains that this negative effect might be because as people in the sending countries become dependent on remittances their habits change. For example, people who used to work on intense jobs such as agriculture, have no more need of this kind of job and, overtime, they become less physically active. In addition,

⁵⁹ H9: Emigration is expected to affect positively the life expectancy in the sending countries in the long-run, through the influence that migrants themselves exercise through the expansion of capabilities proposed in section 5.3.

their diet changes from basic grain foods to more unhealthy foods (e.g. junk food) and more consumption of alcohol. Additionally, the author explains that the children of emigrants are usually raised by their grandparents, which puts more pressure on the elderly (NAATUS, 2013).

Emigrating entails an initial investment that can serve for the journey, and for the first days in the receiving country when immigrants would be jobless. In other words, it might take some time before the new immigrants find a job, and they should be financially prepared for this. Sometimes, people who are planning on emigrating save money for some time or take loans in order to finance this endeavor. This is money that could be used on a better nutrition or medicines, but it is being used for emigration. This is expected to negatively affect the families of the emigrants and their life expectancy in the short-run (HAGEN-ZANKER, 2015).

Table 8 - Effect of Migration on the Access to a Long Healthy Life

	<i>XTFGLS (Model 1)</i>			<i>XTPCSE (Model 2)</i>			<i>XTFGLS (5-year-average) (Model3)</i>			<i>XTPCSE (5-year-average) (Model4)</i>		
	Life Expect	Health Pers	Health Expend	Life Expect	Health Pers	Health Expend	Life Expect	Health Pers	Health Expend	Life Expect	Health Pers	Health Expend
<i>High-Skilled_d</i>	-0.005** (0.00)	-0.003 (0.00)	-0.021* (0.01)	0.000 (0.00)	-0.003** (0.00)	-0.016*** (0.01)	0.002*** (0.00)	0.057*** (0.01)	0.000 (0.00)	0.002*** (0.00)	0.054*** (0.01)	0.0004* (0.00)
<i>High-Skilled_I</i>	-0.002** (0.00)	0.002 (0.00)	-0.016*** (0.01)	0.000 (0.00)	0.001 (0.00)	-0.01*** (0.00)	0.006*** (0.00)	0.020*** (0.00)	0.001* (0.00)	0.005*** (0.00)	0.019*** (0.00)	0.001*** (0.00)
<i>Low-Skilled_d</i>	0.000 (0.00)	-0.009** (0.00)	-0.010 (0.01)	-0.002* (0.00)	-0.008*** (0.00)	-0.008** (0.00)	0.006*** (0.00)	-0.014*** (0.00)	0.004 (0.00)	0.002*** (0.00)	-0.014*** (0.00)	0.009 (0.01)
<i>Low-Skilled_I</i>	-0.002* (0.00)	-0.002 (0.00)	-0.015*** (0.01)	0.000* (0.002)	0.00*** (0.008)	-0.01** (0.008)	0.005*** (0.00)	0.025*** (0.00)	0.00 (0.00)	0.002*** (0.00)	0.026*** (0.00)	0.00 (0.02)
<i>Remittances_d</i>	0.000 (0.00)	-0.010 (0.02)	-0.010 (0.02)	0.000 (0.00)	-0.008 (0.01)	-0.008 (0.01)	0.001*** (0.00)	-0.017*** (0.00)	0.003** (0.00)	0.002*** (0.00)	-0.015*** (0.00)	0.0003** (0.00)
<i>Remittances_I</i>	-0.003*** (0.00)	0.000 (0.00)	0.000 (0.00)	-0.002*** (0.00)	0.001 (0.00)	0.001 (0.00)	0.004*** (0.00)	0.029*** (0.00)	0.000 (0.00)	0.004*** (0.00)	0.027*** (0.01)	0.000 (0.00)

Standard errors in parentheses *p<0.10, **p<0.05, ***p<0.01

High-skilled emigration showed a negative short-run effect on births attended by highly skilled personnel, being statistically significant in model 2 only, while low-skilled emigration also showed negative short-run significant effects in models 1 and 2. One speculation for this result could be that emigration of the high-skilled ones can work as an incentive for other high-skilled workers to feel the urge to emigrate as well, probably attracted by higher wages, possibly evidencing some brain drain effects. On the other hand, emigration of the low-skilled workers could work on the same direction when their children prefer to emigrate instead of spending several years pursuing a health degree. In fact, Bundred and Levitt (2000) describe the emigration of highly skilled health personnel as a “medical carousel” in which health personnel continuously moves to countries with a higher living standard. For example, “Pakistani doctors move to the UK, UK doctors move to Canada, and Canadians move to the USA” (BUNDRED; LEVITT, 2000: p.245). In the case of Latin America, the migration of health personnel is on the rise and sending countries are hiring foreign-trained health personnel in order to compensate the emigration of their own (CARPIO; BENCH, 2015). Remittances, on the other hand, showed a positive effect in the lagged variable in Model 5 only, implying that there is some positive effect from the previous year. This suggests that remittances could be used in order to get health degrees, losing some pressure on the urge to emigrate and on the brain drain.

Finally, high-skilled and low-skilled emigration show negative short-run effects on the government expenditure on health. Remittances, on the other hand, do not show a statistically significant effect in all the models. One explanation for this could be that the emigration of the workforce, either high-skilled or low-skilled, relaxes the burden of governments of investing in health more and more each year, which would be expected as a normal result of the annual increase in population and the needed medical improvements in health. In other words, it is possible that less people in a given country work as an incentive for the government to invest less in the health system and more in other areas.

Nevertheless, when seeing models 3 and 4, it can be seen that some of the negative short-run effects turned positive in the long-run. With respect to life expectancy,

the negative short-run effects turn positive in the long run in the three measures of migration, not rejecting hypothesis 9. In the case of health expenditure on health, the negative short-run effects of the high-skilled and low-skilled turned positive. Additionally, the effects of remittances, which was not statistically significant in the yearly basis, turned positive and statistically significant. This could mean that remittances need some time in order to make a positive effect, not rejecting hypothesis 11⁶⁰.

On the other hand, in the case of births attended by highly skilled personnel, which presented negative short-run effects, turned positive in the case of the high-skilled emigration. This could be due to the influence that the high-skilled emigrants can have on the migrants-to-be in the sending countries. In other words, the high-skilled emigrants can somehow convince people in the sending countries to pursue a health degree, either because they would be more helpful at home, or because a health degree would be more helpful in case people still want to emigrate. In the case of the low-skilled emigration, which has a negative short-run effect, continue to have a long-run negative effect, partially rejecting hypothesis 10⁶¹. Again, it is possible that the low-skilled emigrants influence people at home in order to emigrate, instead of pursuing a health degree for so many years. Another reason for this could include the negative effect of the absence of the emigrant parents. Research has found that there are negative effects of the absence of parents on school attainment, including that the teenager is in age of working and has to stop school in order to help provide at home or the lack of authority of the relatives that are taking care of the migrant's children (HAGEN-ZANKER, 2015).

Lastly, remittances, which had no statistically significant effect on births attended by highly skilled personnel, reached a negative long-run effect, rejecting hypothesis 12. A speculation for this could be that people in the sending countries use remittances for other things, even for migrating, and less people use remittances for the pursuing of a

⁶⁰ H11: Emigration is expected to affect positively the public expenditure in health in the sending countries in the long-run, through the influence that migrants exercise through the exit option proposed in section 5.1 and through the expansion of capabilities proposed in section 5.3.

⁶¹ H10: Emigration is expected to affect positively the delivery of births attended by highly-skilled personnel in the sending countries in the long-run, through the influence that migrants themselves exercise through the expansion of capabilities proposed in section 5.3.

health degree. In other words, in some cases, an increase in remittances might not lead to a higher school outcome (HAGEN-ZANKER, 2015).

8.3. Migration and the access to education

This section assesses the impact of emigration on various human development outcomes on the access to education. As described in section 6.1.2, the variables analyzed here are the enrollment ratio in primary, secondary, and tertiary education according to gender parity index, which is used in order to take into consideration the education of girls *vis-à-vis* boys, as well as the government expenditure on education. Each of the independent variables (high-skilled emigration, low-skilled emigration, and remittances) is analyzed for its effect as a first difference and as a one-year-lag.

Table 9 shows the effect of migration on the access to education. The first four columns show the results of the analysis through Feasible Generalized Least Squares (Model 1). The following columns show a re-estimation through Panel Corrected Standard Errors (Model 2). Models 3 and 4 correspond to models 1 and 2 re-estimated through the 5-year-average, respectively. The results presented are for the effect of high-skilled and low-skilled emigration, and remittances.

To begin with, the results show no statistically significant effects from the high-skilled emigration on government expenditure on education. Low-skilled emigration, on the other hand, shows a negative short-run effect of the lagged variable in model 2, while remittances show a positive effect of the lagged variable in models 1 and 5. In his study, Batista *et al* (2012) found that there is a positive relationship between the probability of migrating and the investment on more education, and that a decrease in the probability of migrating leads to lower levels of education. In the case of Latin America, it seems like the probability of high-skilled emigration does not trigger a positive effect in government spending on education. Furthermore, it seems like the probability of low-skilled emigration has a negative effect in government spending on education in the short-run.

Likewise, when seeing models 3 and 4, it can be observed that high-skilled emigration continues to show no statistically significant effects in the long-run, while low-skilled emigration showed a negative long-run effect, rejecting hypothesis 5⁶². One speculation for this could be that governments see that there is no return to their investment in education of their citizens over decades, and therefore, government expenditure on education does not increase as it should.

⁶² H5: Emigration is expected to affect positively the public expenditure in education in the sending countries in the long-run, through the influence that migrants themselves exercise through the exit option proposed in section 5.1.

Table 9 - Effect of Migration on the Access to Education

	<i>XTFGLS (Model 1)</i>				<i>XTPCSE (Model 2)</i>				<i>XTFGLS (5-year-average) (Model3)</i>				<i>XTPCSE (5-year-average) (Model4)</i>			
	Educ Exp	Primary	Second	Tertiary	Educ Exp	Primary	Second	Tertiary	Educ Exp	Primary	Second	Tertiary	Educ Exp	Primary	Second	Tertiary
<i>High-Skilled_d</i>	0.025 (0.07)	0.000 (0.00)	0.003 (0.00)	0.094 (0.13)	0.008 (0.01)	-0.003 (0.00)	0.003 (0.00)	-0.007 (0.01)	0.013 (0.03)	0.005*** (0.00)	0.009*** (0.00)	0.004 (0.01)	0.024 (0.04)	0.005*** (0.00)	0.009*** (0.00)	-0.006 (0.01)
<i>High-Skilled_I</i>	0.000 (0.06)	0.003 (0.00)	0.003 (0.00)	0.038 (0.07)	0.002 (0.00)	0.003*** (0.00)	-0.001 (0.00)	-0.002 (0.01)	-0.014 (0.03)	0.003*** (0.00)	-0.001 (0.00)	-0.012*** (0.02)	-0.006 (0.03)	0.003*** (0.00)	0.000 (0.00)	-0.008* (0.00)
<i>Low-Skilled_d</i>	0.230 (0.23)	0.021* (0.01)	-0.003 (0.01)	0.069 (0.15)	0.035 (0.03)	-0.001 (0.00)	0.003 (0.00)	-0.011 (0.01)	0.034 (0.07)	0.004*** (0.00)	0.007** (0.00)	-0.008 (0.01)	0.032 (0.07)	0.005*** (0.00)	0.008** (0.00)	-0.006 (0.01)
<i>Low-Skilled_I</i>	0.014 (0.14)	0.005 (0.00)	0.004 (0.01)	0.183*** (0.07)	-0.008*** (0.00)	0.002** (0.00)	-0.008*** (0.00)	-0.006 (0.00)	-0.231** (0.11)	0.007*** (0.00)	0.008** (0.00)	0.048*** (0.01)	-0.230** (0.11)	0.008*** (0.00)	0.009** (0.00)	0.052*** (0.01)
<i>Remittances_d</i>	0.018 (0.05)	0.004* (0.00)	-0.002 (0.00)	0.039 (0.16)	0.000 (0.01)	0.000 (0.00)	0.005 (0.01)	-0.010 (0.01)	0.069*** (0.01)	0.002*** (0.00)	0.009*** (0.00)	0.021*** (0.00)	0.069*** (0.01)	0.002*** (0.00)	0.009*** (0.00)	0.021*** (0.00)
<i>Remittances_I</i>	0.092* (0.05)	-0.001 (0.00)	0.002 (0.00)	0.067** (0.03)	0.003 (0.00)	0.001** (0.00)	-0.005*** (0.00)	0.000 (0.00)	-0.022 (0.02)	0.001*** (0.00)	0.010*** (0.00)	0.049*** (0.00)	-0.032* (0.02)	0.002*** (0.00)	0.010*** (0.00)	0.049*** (0.00)

Standard errors in parentheses *p<0.10, **p<0.05, ***p<0.01

On the other hand, it is interesting that remittances have a long-run positive effect. Perhaps, remittances could serve as an incentive for governments to invest on a more skilled workforce with the primary purpose of increasing human development at home, or with the secondary purpose of “exporting” more highly qualified labor, which could remit even more and to serve as means for trade and investment. Even though remittances are used by the receivers and not by the government, the injection of this extra money into the system helps ease the burden that governments have with respect to investments. In other words, given that people now have some extra income, they are able to provide some services by themselves, such as better consumption items, more access to health and private schools. This gives room to the government for investing in the areas of more priority at a certain time.

Therefore, even though the idea of losing people might not be very appealing to the governments of the sending countries because they lose very necessary high-skilled and low-skilled workers, the fact of having extra money in the economy represents a temporary solution that is not the ideal policy, but it can work.

With respect to primary education, high-skilled emigration showed a positive short-run effect of the lagged variable in model 2. Low-skilled emigration, on the other hand, show a positive short-run effect in models 1, 2, and 5. Remittances also show positive short-run effects in the three models. From these results, it can be observed that enrollment in primary education, for girls *vis-à-vis* boys, is one of the variables with most positive effects. One of the main motivations for people to emigrate is to give their kids better opportunities in life, and girls are being educated more than ever before. In this sense, it is important for emigrating parents that their kids go to school and basic education is very important. This could explain why enrollment in primary education has several positive results in the statistical analysis, as well as the positive effect of remittances. In fact, when looking at models 3 and 4, it can be observed that enrollment in primary education has stronger effects in the long-run, implying that both high-skilled

and low-skilled emigration, as well as remittances, serve as an incentive to enroll at least in basic education in the sending countries, not rejecting hypotheses 6 and 12⁶³.

These positive results are also influenced by the constant efforts of Latin American and Caribbean governments to make primary education universal (OCAMPO; VALLEJO, 2012). Still, even in spite of these efforts and even when in most of the cases primary education is universal, in some countries parents still have to deal with expenses such as uniforms, shoes of a certain style, and school supplies in order to enroll their kids in schools. Furthermore, in rural areas, some transportation is required. Remittances are of much help in these type of situations.

In the case of secondary education, high-skilled emigration does not show any significant effects. Low-skilled emigration, on the other hand, shows a negative short-run effect of the lagged variable in model 2 only. Remittances, on the other hand, show a negative short-run effect of the lagged variable in model 2. These recurrent negative effects might be explained by the urge to migrate that some teenagers can have, given that their parents are already in the United States and they are probably being raised by other relatives. Through the constant communication with their parents, from social media, and from television, teenagers can have a glimpse of the way of life in the country where their parents are, such as the United States for example, and might consider to emigrate. Remittances, on the other hand, can be used for this endeavor, reducing the enrollment in secondary education. Another possible explanation is the high number of teenage pregnancies that Latin America has. Indeed, according to UNICEF, Latin America is the region with more teenage pregnancies in the world⁶⁴. If teenage girls grow up without their parents, who would be abroad, there would be less discipline at home and a pregnancy would be more likely to happen. Nevertheless, looking at models 3 and 4, it can be observed that these short-run negative effects on the enrollment on secondary education

⁶³ H6: Emigration is expected to affect positively the enrollment in primary education in the sending countries in the long-run, through the influence that migrants themselves exercise through the expansion of capabilities proposed in section 5.3.

⁶⁴ UNICEF, 2016. See more details on https://www.prensa.com/salud_y_ciencia/America-Latina-Caribe-embarazo-precoz_0_4592540725.html Last accessed on December 18, 2017.

are reversed and become positive in the long-run for the three measures of migration, not rejecting hypotheses 7 and 12⁶⁵.

Finally, with respect to tertiary education, high-skilled emigration does not show any statistically significant effect in any of the models, while low-skilled emigration shows a positive short-run effect in model 1 only. Remittances, on the other hand, show a positive short-run effect in model 1. In this respect, it could be safe to draw on the research by Boucher, Stark and Taylor (2009), and Lowell and Findlay (2001) that discusses how the probability of emigration works as an incentive to acquire more education and more skills. Indeed, even though in this case it is the low-skilled emigration that has stronger positive effects, as citizens aim for a better economic future, they could be encouraged to get a better education in order to be eligible for a job abroad. This would increase the freedoms of both education and economic development in the long-run, leading to brain gain as the return to education. Additionally, the notion of “brain exchanges” that characterizes globalizing economies can also act as an incentive for sending countries to insert themselves in the global labor market and boost education enrollment of their girls and eventually, an overall national well-being.

In models 3 and 4, high-skilled emigration show a negative long-run effect from the lagged variable, rejecting hypothesis 8⁶⁶. These negative long-run effect could be caused by young people who are influenced by the high-skilled emigrants in order to get higher education abroad. Indeed, more and more international organizations are fully funding scholarships abroad for people in the developing countries, and they give particular importance to the education of girls in the developing countries. This would reduce a little the enrollment in tertiary education in the sending countries⁶⁷. Some governments from the most developed countries are also trying to attract young people from Latin America

⁶⁵ H7: Emigration is expected to affect positively the enrollment in secondary education in the sending countries in the long-run, through the influence that migrants themselves exercise through the expansion of capabilities proposed in section 5.3.

⁶⁶ H8: Emigration is expected to affect positively the enrollment in tertiary education in the sending countries in the long-run, through the influence that migrants themselves exercise through the expansion of capabilities proposed in section 5.3.

⁶⁷ One of these international organizations is the Organization of American States, who annually gives hundreds of fully funded scholarships for the people of the Americas. More information available on <http://www.oas.org/en/scholarships/> Last visited December 13, 2017.

to study with partly or fully funded scholarships in their countries. These are great news for Latin American governments as young people are being the focus of investment for a future higher human development. However, sometimes these young people do not go back to their countries of origin due to several reasons, including insecurity or lack of opportunities for their obtained higher education. In spite of this, if these newly educated people decide to go back home, they will eventually help increase the human development of their countries. If they decide to stay abroad, they have a chance to get a higher wage and help the sending countries through economic, social or political remittances.

Another reason for this could be that, having information on wages and standard of life in the receiving country through information given by the high-skilled emigrants can trigger the urge to emigrate on people in the sending countries. When considering that higher wages and a higher standard of life can be achieved by emigrating, regularly or irregularly, people might consider that the cost of pursuing tertiary education (time and money) is too high. Therefore, emigration could sound as the immediate solution with the highest return. There is research that evidences this point in the case of Mexico. The authors find that emigration to the United States decreases the probability of educational attainment (MCKENZIE; RAPOPORT, 2006). For this to be avoided, high-skilled emigrants could clarify that higher wages come as return for higher education. Nevertheless, in most cases, even low-skilled emigrants can earn higher wages in the receiving country when compared to the achievable wages in the sending countries.

On the other hand, low-skilled emigration and remittances show strong positive effects in the long-run. I believe that, at least with respect to education, there should not be great differences in the effects that high-skilled and low-skilled emigration can have. This is because for the high-skilled emigrants, it is important that their children get as much education as possible, because they already had a glimpse at the competitiveness that their children will face. Low-skilled emigrants, on the other hand, expect that their children have a better education than the one they had, because they expect that education will give their children, and girls in particular, all the things they were not able to achieve. In this sense, even when the motivations are different, their aim is the same:

give their children as much education as possible, and educating girls is becoming more and more important in Latin America.

9. FINAL CONSIDERATIONS

“After many decades of development, we are rediscovering the obvious - that people are both the means and the end of development”. (Khadija Haq)

People decide to migrate in spite of the costs that this enterprise might involve. Being able to help their families in the migrant's country of origin is many times worth the risks encountered on the way to the receiving country and in the receiving country itself. Once there, migrants are of great help to the sending countries as they not only send financial remittances, but they also transfer social and political remittances, which are seen through values, ideas and knowledge that they acquire in the receiving country and transmit through constant communication with their families and friends. All these remittances are used for various purposes back home, from the opportunity to better education, alleviation of poverty and development, to influence elections and politics, showing the importance and the influence of diasporas on the sending countries.

Regarding the contributions of this work, by making use of literature on international relations, politics, economy, and sociology, this study contributes by taking the human element as the main focus, and analyzing how this human element of migration, that is the migrants themselves, affect the human development in the sending countries in Latin America. In other words, this work is making a relevant contribution because it is concerned with how migrants themselves affect the human development of their countries of origin, shifting from the common perspective of remittances to a human based perspective, and from the destination country to the sending country perspective. Additionally, this study investigates whether high-skilled emigration hurts or benefits the sending countries in the same way as low-skilled emigration does, making an important contribution to the literature. Most of the authors focus on high-skilled emigration and forget that the low-skilled emigration surpasses the high-skilled one, and therefore, they also have important contributions for the human development of their countries of origin.

Furthermore, it is asked why the impact of emigration on the sending countries as a whole should be studied. Researchers show interest in how the migrants contribute to their household and cities because this would be more easily observable in countries where a low percentage of the population migrates and where migrants tend to come from specific places. But how about those countries where the third part of their population has emigrated and continues to do so, as it is the case of El Salvador, followed very closely by other Latin American countries? And how about those countries where migrant families are more dispersed and do not come from some specific cities? It is worth to sum up all these individual contributions and map how they affect the country as a whole and fill this gap in the literature.

Another contribution of this research consists on the outlining of three possible causal mechanisms that help explain the results found in the statistical analysis of Chapter 8. The first possible causal mechanism is through the migrants exercising their option or freedom of migrating, and which would necessitate a government response, such as in hypotheses 5 and 11. The second mechanism entails the forces of supply and demand of the job markets that are the basis for hypotheses 1 and 2. Finally, the third mechanism involves the use of the freedom of migrating translated into the expansion of freedoms in the sending countries, which is the basis for hypotheses 3, 4, 6, 7, 8, 9, and 10. As explained above, these mechanisms are considered here as possible causal mechanisms and are open to further research and discussion.

From the results obtained through this research, it can be said that the impacts of emigration on human development are heterogeneous, and that depend on the type of emigration (high-skilled or low-skilled) and on time (short-run or long-run). This is another important contribution of this study: the analysis of the heterogeneous impacts of emigration in the short-run and the long-run. The findings of this study suggest that migration plays a very important role, mostly positive, in the improvement of the human development of the sending countries. These findings contradict the arguments of Delgado and Covarrubias (2006), who explain that migration does not generate opportunities for growth or social development in the sending countries, and that it creates unemployment, stagnation, inflation, and economic dependency. Even though

this research is concerned with human development only, it can be said that the results found here present a more positive picture in the long-run for the countries in the sample.

I also found statistical evidence that suggests that there are important short-term benefits of migration on the access to a decent living standard and to education. Specifically, wages and employment seem to benefit from short-term positive effects, as well as the enrollment in primary and tertiary education. However, there are also some worrying negative short-term effects on national income, freedom, government expenditure in education, and enrollment in secondary education. Nevertheless, most of these negative short-run effects revert in the long-run and become more positive.

The results point that the area of a long and healthy life is the most affected by short-term negative effects, which become positive in the long-run in the case of life expectancy and government expenditure in health. However, there is a persistent negative effect also in the long-run from the emigration of the low-skilled workers on the number of babies delivered by highly skilled personnel.

In the long-run, it seems like high-skilled emigration has more positive effects on living standards and on a long healthy life than the low-skilled emigration. On the other hand, in the case of education, it seems like low-skilled emigration has more positive long-run effects. This is important because, first, it shows that migration is a process that can take some time in order to show a positive effect. Second, it helps establish a difference between low-skilled and high-skilled emigration in term of their effects on specific areas of human development. Third, even though the contributions of the high-skilled can be greater in the long-run, it became evident in this study that low-skilled emigrants are more in absolute numbers, which makes them reach great contributions that deserve to be recognized as much as those of the high-skilled ones. And given that most of the times they have less benefits in the receiving country, the governments of the sending countries must ensure that these emigrants are offered all the protection and benefits they need so that their capabilities expand even more.

Fourth, having in mind that this research was conducted having into consideration official data on regular migration only, it can be said that these effects are but a fraction of the whole picture if compared to the estimates of irregular migration. Therefore, if data

analysis points to positive effects for regular migration, this study would recommend Latin American governments to look for ways to reduce irregular migration by providing opportunities of regular migration for those who wish to do so. But before that, governments must provide the basic human development in order to avoid their people to emigrate because of this, such as the case of Costa Rica mentioned in section 5.1.

From this study it can be seen that although migration has some short-term negative effects, it can also have positive outcomes in the long-run, and that because migration is not an issue that can be fully controlled, it is worth to recognize and maximize its benefits as much as possible. It is observable that the countries in this sample are different among them, and that each one deals with different inherent problems. Therefore, they cannot deal with migration in the same way. However, providing people with the very basic capabilities at home is paramount. This way, migration can be seen as an option, not a necessity.

Additionally, there are some problems that I was not be able to address due to limited time and resources, and that are open for further research. One of them is to analyze the results found in this research for each of the countries included in the sample. The main reason for not having done it here (besides the limited time and resources) is because the variables were first-differenced given that most of them had unit-root problems. First-differencing the variables would account for unobserved effects in each unit. Using dummies for each sub-region was considered, but given that these sub-regions also have big differences amongst themselves, the results would not be very informative. Therefore, careful consideration should be given to each country in the sample.

Another issue regards remittances, which is widely used in migration studies. One of the most used database on remittances is the World Development Indicators of the World Bank, which is based on government data of each country. But there are no proposed strategies in order to isolate the remittances sent by the high-skilled or low-skilled emigrants, or to isolate the remittances sent by regular or irregular emigrants. Another issue open for further research that this study was not able to cover is the exploration of cyclical flows. That is, to identify those migrants who emigrate for a specific

period of time and come back home and the effect that this has on the human development of the sending countries. The field would benefit from these “tracking” data, where it is known who left and stayed in the receiving country, who left and came back, how long this person was abroad, how much they remitted while abroad, and all the channels through which they transmitted their social and political remittances.

Further research is also needed in order to operationalize social and political remittances, in order to somehow quantify these contributions from the migrants in all Latin America and the Caribbean. One way to do this would be to identify the type of help that migrant organizations (and their members individually) do in order to help the sending countries. For example, quantify how many times they communicate with their relatives and friends in the sending countries by phone or social networks, how many times they talk about politics, community problems, etc., and measure the impact of these interactions in the politics, community problems, or human development back home. (CÓRDOVA; HISKEY, 2015) began with this idea and found that migration is able to shape the political behavior of relatives and friends in six sending countries. More research is needed in order to explore these types of effects in all Latin America and the Caribbean.

More research is also needed in order to assess which levels of high-skilled emigration and which levels of low-skilled emigration lead to positive or negative effects on the human development of the sending countries. It would be helpful to establish a threshold from which a negative effect turns positive or otherwise, in which of the indicators of human development, and in which countries.

9.1. Correlation and causality

One of the main goals of any quantitative analysis is to collect data from different sources, analyze it, and try to find if one variable has a causal effect on another one. In the case of this thesis, it is analyzed if migration affects the human development of the sending countries, and under what circumstances. However, we must remember that finding a correlation between two variables is not necessarily causality. This is why any

researcher who performs in the quantitative field should be careful at the time of making any inference from the collected data. First of all, the quantitative researcher must back up his/her statistical results with theory. And second, the researcher must try to exhaust all the proper econometric techniques that will help isolate the effect of an independent variable on the dependent one. For this, it is important that the researcher knows what type of data has been collected, what kind of database has been put together, and how these data behaves, because this is the starting point for choosing the right model that will lead the analysis.

In the field, researchers can establish causality by conducting experiments, where the environment is controlled, where there is the possibility of having a control group, and where the variables are observable. In the case of a statistical analysis, carefully applied econometric techniques can help simulate experiments with real data from observed cases along time (hours, days, weeks, months, years, etc.) and with the advantage of including several control variables (WOOLDRIDGE, 2009).

Still, to find causality is difficult, and many times, researchers limit themselves to establish descriptive inference. However, according to (KING; KEOHANE; VERBA, 1994), “avoiding causal language when causality is the real subject of investigation either renders the research irrelevant or permits it to remain undisciplined by the rules of scientific inference”. On the other hand, the authors also recognize that no matter how good the research design is, or how much data the researcher collects, or how very well controlled the experiments are, causal inference will never be certain. This is known as “the fundamental problem of causal inference” (KING; KEOHANE; VERBA, 1994), and it should be clear for any quantitative researcher.

Now, I have studied the relationship between two variables in this research: migration and human development. Each of them has been divided into smaller variables, given their complexity. The statistical results obtained have been backed up with the existing theory and linked with qualitative research and survey data that has some explanations for the statistical results that were found. In other words, I am testing if the New Theory of Migration holds with the two variables (migration and human development) in an exploratory study of the relationship between the variables in question. Furthermore,

I intended to identify three causal mechanisms through which the relationships between the variables of migration and human development are likely to operate. These causal mechanisms are also backed up by existing theories, as well as previous qualitative and quantitative research. By identifying causal mechanisms, researchers are able to build support for a given theory and provide leverage “by making observations at a different level of analysis into implications of the theory” (KING; KEOHANE; VERBA, 1994). The causal mechanisms provided in this research were thought to explain a good part of the relationship between the chosen variables. However, other researchers in the area of migration or human development might be able to identify other causal mechanisms that explain the relationship between the variables of interest.

Having said this, this research, just as any other (qualitative or quantitative) research, deals with uncertainty. However, this research has tried to follow the correct process of a scientific research, and has found statistical support for existing theories by collecting data for 46 years and 21 Latin American countries, and analyzing it through several methodologies.

9.2. Recommendations

Amongst the recommendations that I can make based on this research is, first, for governments in Latin America to work harder in the provision of at least the basic human development, given that a low human development is very likely to cause migration in the first place. Even though Portes (2004) comes to the conclusion that governments do not have an incentive to limit emigration given its positive effects, I believe that improving the basic human development of the sending countries would have more positive effects in the long-run. In this sense, people who have the basic capabilities and freedoms that they need in order to achieve those things that they value are expected to stay home and contribute to the human development of their countries. Therefore, the policy making for the improvement of human development should be addressed from a very basic start point, such as the variables included in the HDI. In other words, as studied here, human development is a very wide concept, but the HDI can be a good start for policy making.

Furthermore, if people still want to migrate, governments should provide precise information and safe channels through which migration is regular and safe, so that migrants are protected, and therefore, able to expand their own capabilities and the capabilities of their families in the sending countries. Likewise, based on the findings of this research, I would recommend governments to relax emigration policies and reach more migration agreements with destination countries in order to give more people the opportunity to emigrate safely. This way, irregular emigration can be reduced, as well as all the risks and costs associated to it, such as violations to the human rights of migrants. Additionally, this would enhance the capabilities of migrants that can be offered by them in both the receiving country and the sending countries.

Based on the problems found during this research, I would also recommend governments, NGOs and the academia in general to work together in the gathering of high quality data from their respective countries. These data will help researchers and the community in general to better monitor and analyze the performance of a given country with respect to migration and human development, and will be able to make better recommendations based on their analysis. This recommendation is based on the difficulty encountered at the time of collecting the data for the analysis. Specifically, I consider that high quality data on emigrants and their background, remittances sent back home by these emigrants, and time of return (in case they return) would be very useful for migration research.

Lastly, I acknowledge that the findings of this research are true for the sample selected. The field is open for further research in wider areas of the world that also have long history of migration. Theoretically, the results would be similar. However, the social, political, economic and cultural features of other regions of the world could also affect the results.

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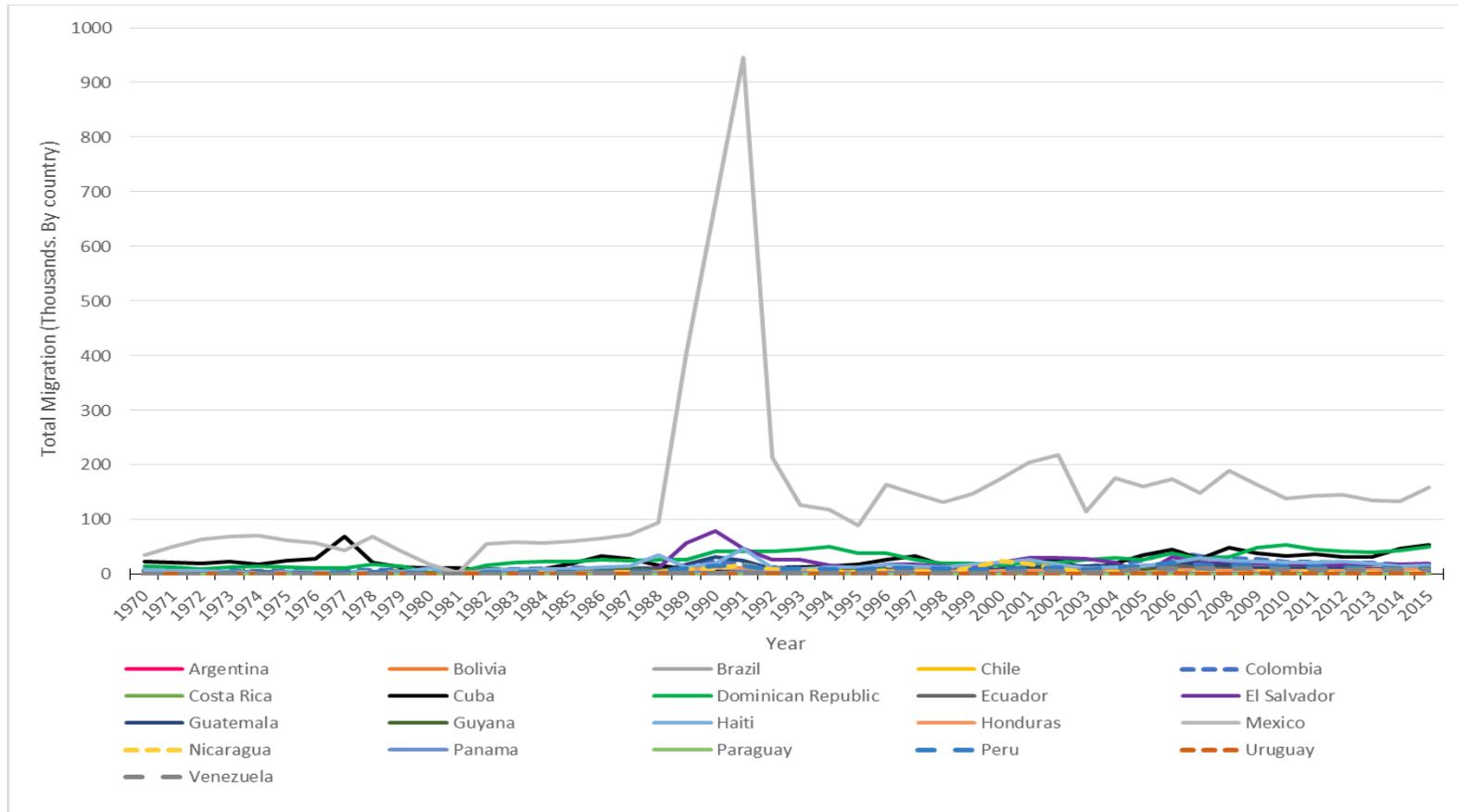
ZONG, J.; BATALOVA, J. **Mexican Immigrants in the United States**. Migration Policy Institute, 2016a.

ZONG, J.; BATALOVA, J. **South American Immigrants in the United States**. Migration Policy Institute, 2016b.

ZONG, J.; BATALOVA, J. **Caribbean Immigrants in the United States**. Migration Policy Institute, 2016c.

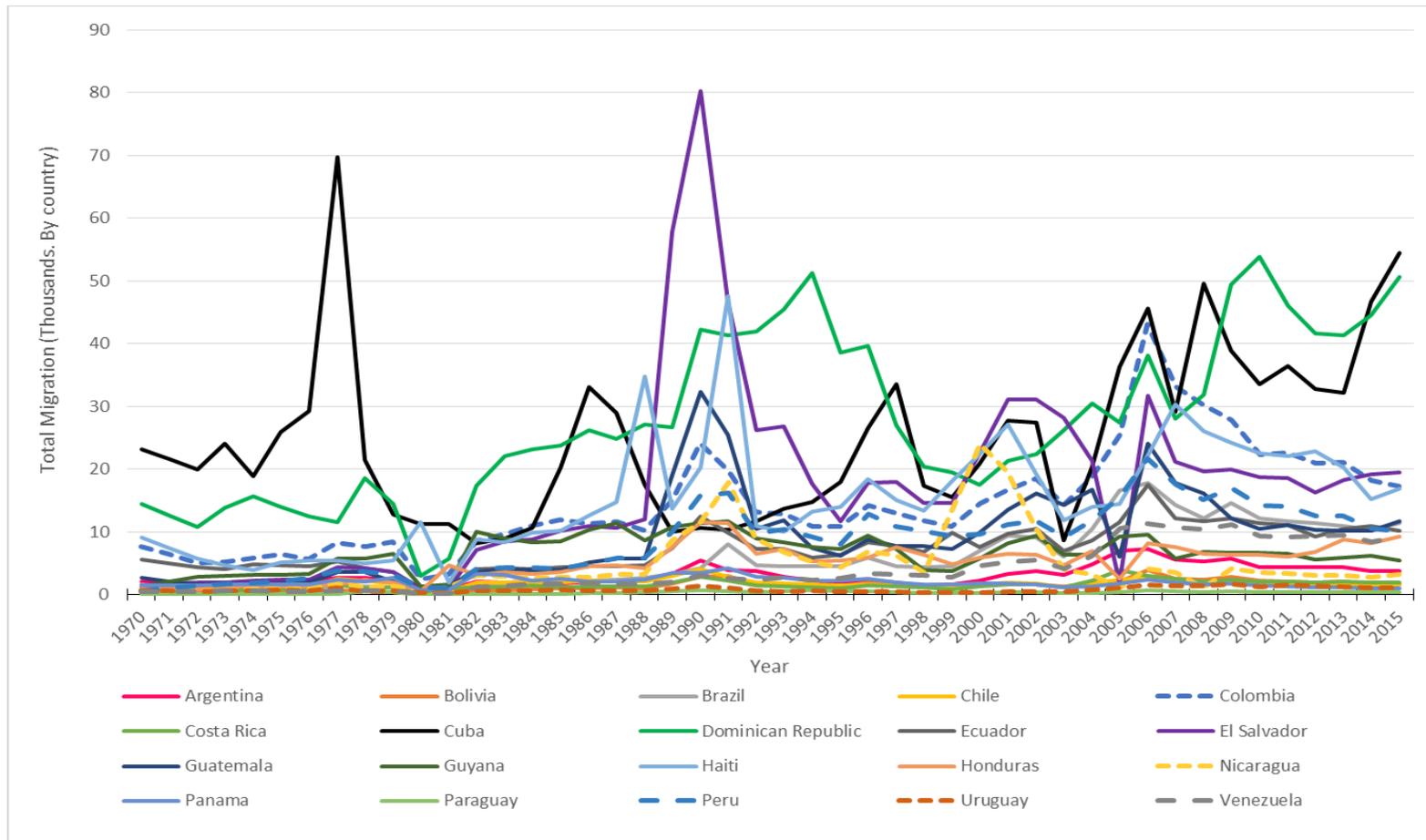
ZONG, J.; BATALOVA, J. **Frequently Requested Statistics on Immigrants and Immigration in the United States**. Migration Policy Institute, 2017.

Appendix 1 - Latin American Immigrants Accepted in the United States (With Mexico), 1970-2015



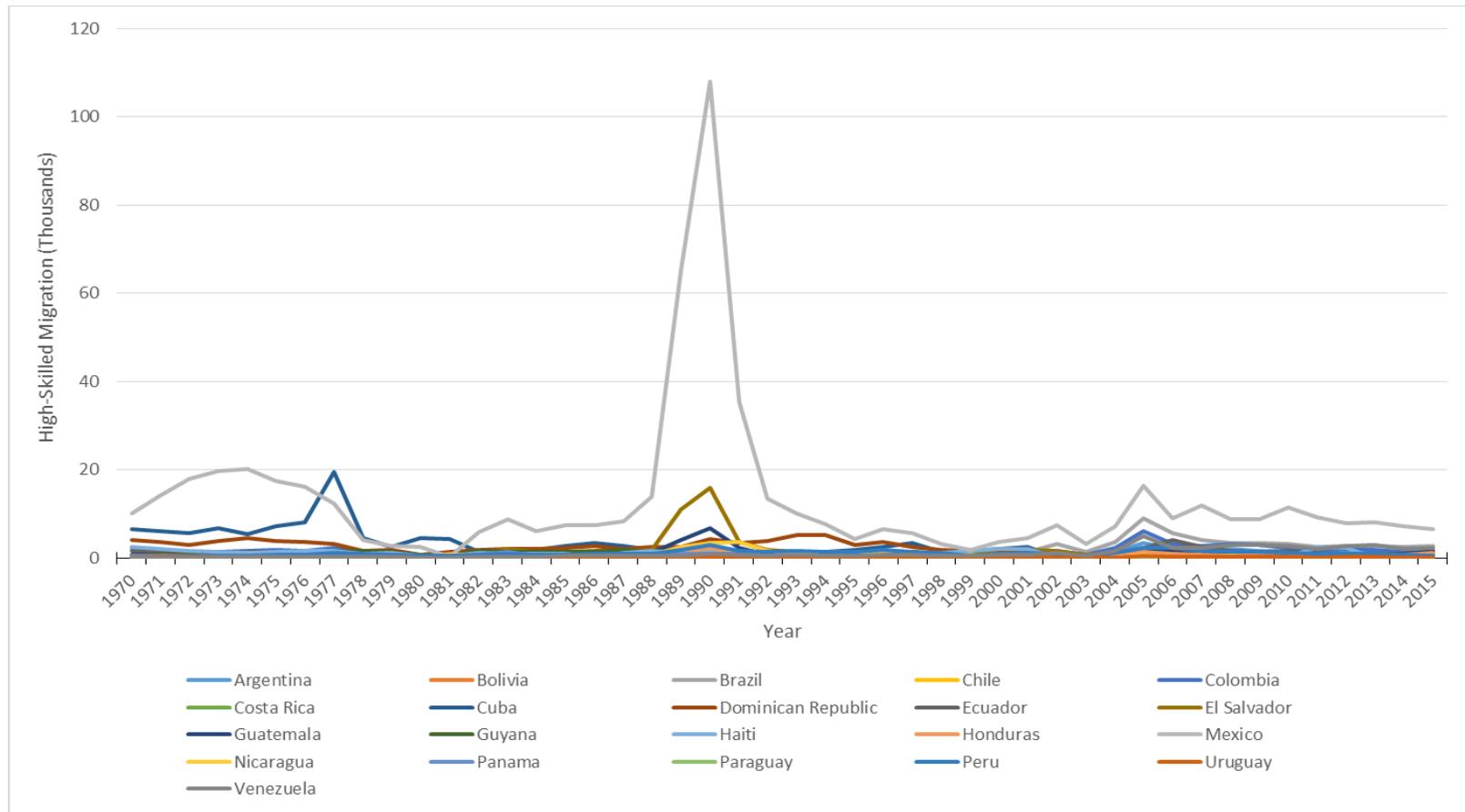
Source: Yearbook of Immigration Statistics. Department of Homeland Security. 1970-2015

Appendix 2 - Latin American Immigrants Accepted in the United States (Without Mexico), 1970-2015



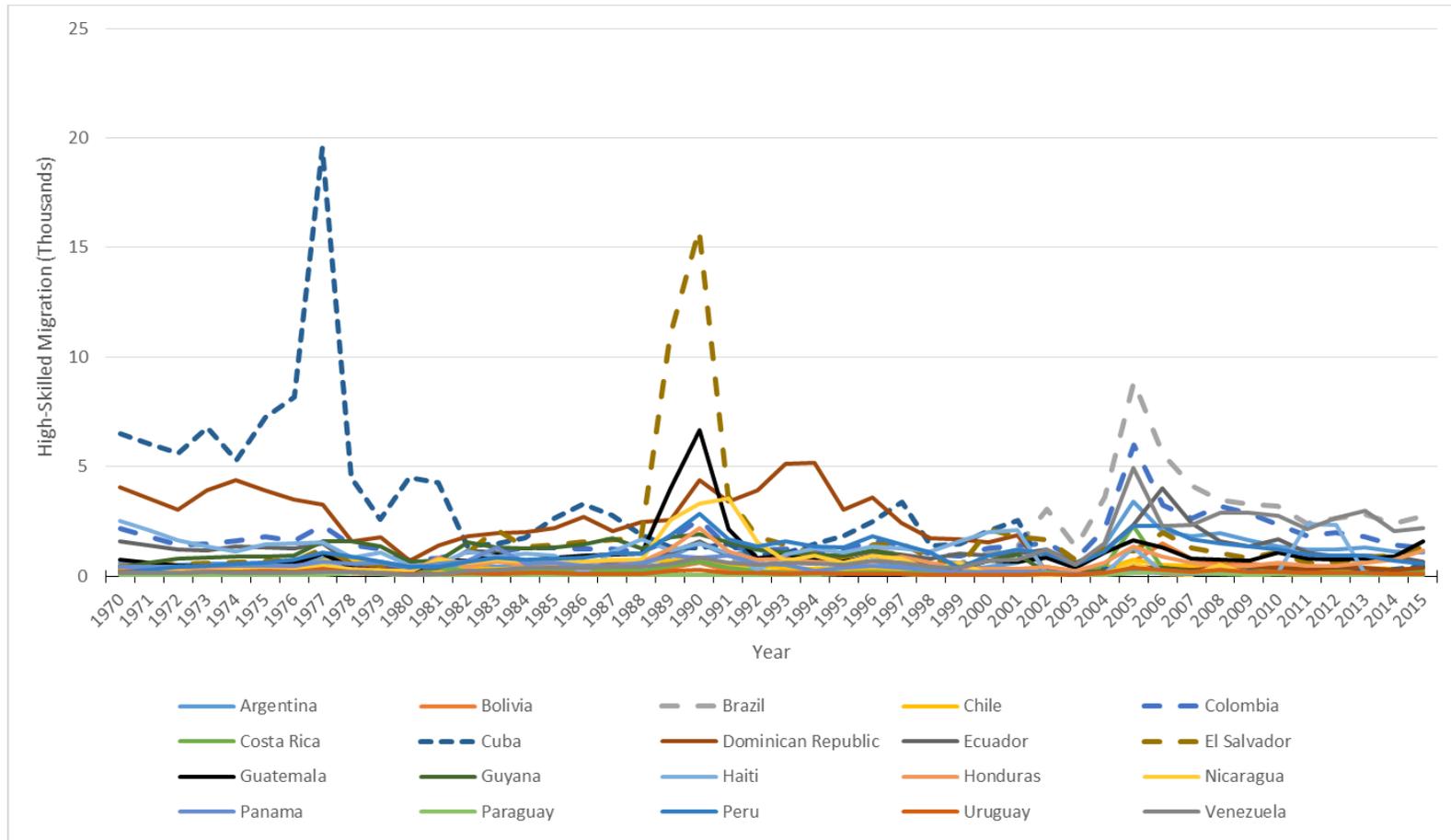
Source: Yearbook of Immigration Statistics. Department of Homeland Security. 1970-2015

Appendix 3 - Latin American High-Skilled Immigrants Accepted in the United States (With Mexico), 1970-2015



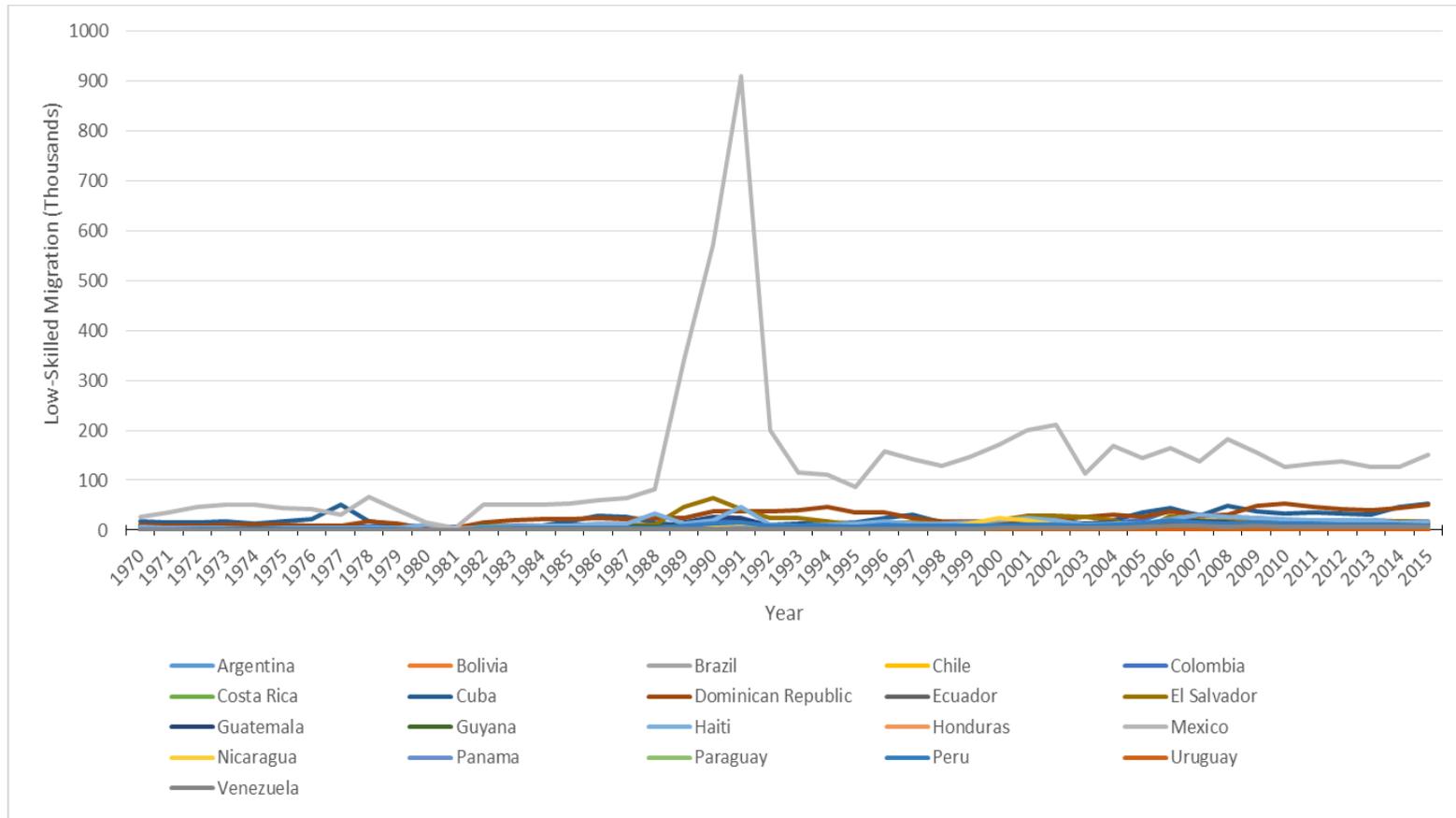
Source: Yearbook of Immigration Statistics. Department of Homeland Security. 1970-2015

Appendix 4 - Latin American High-Skilled Immigrants Accepted in the United States (Without Mexico), 1970-2015



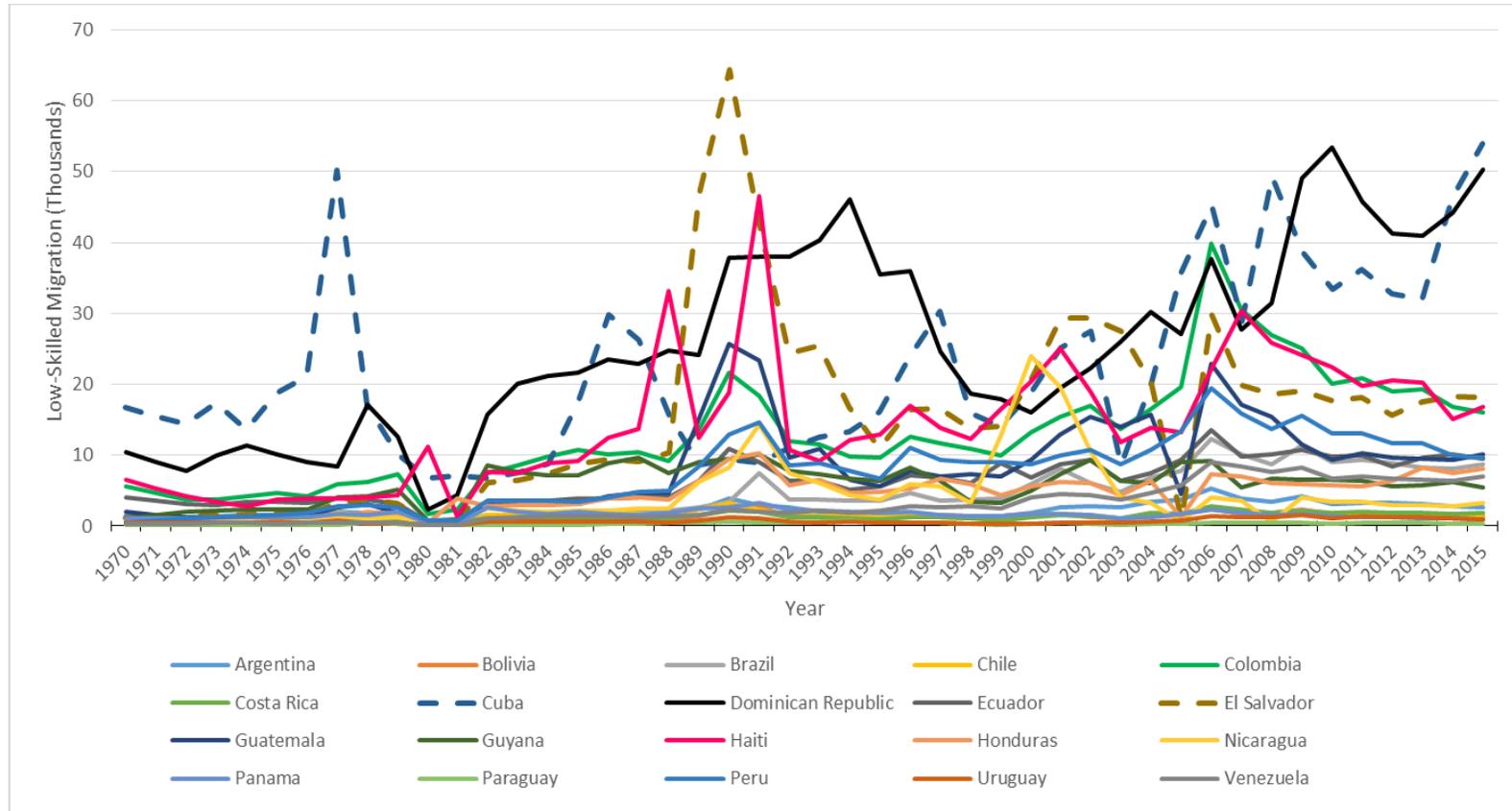
Source: Yearbook of Immigration Statistics. Department of Homeland Security. 1970-2015

Appendix 5 - Latin American Low-Skilled Immigrants Accepted in the United States (With Mexico), 1970-2015



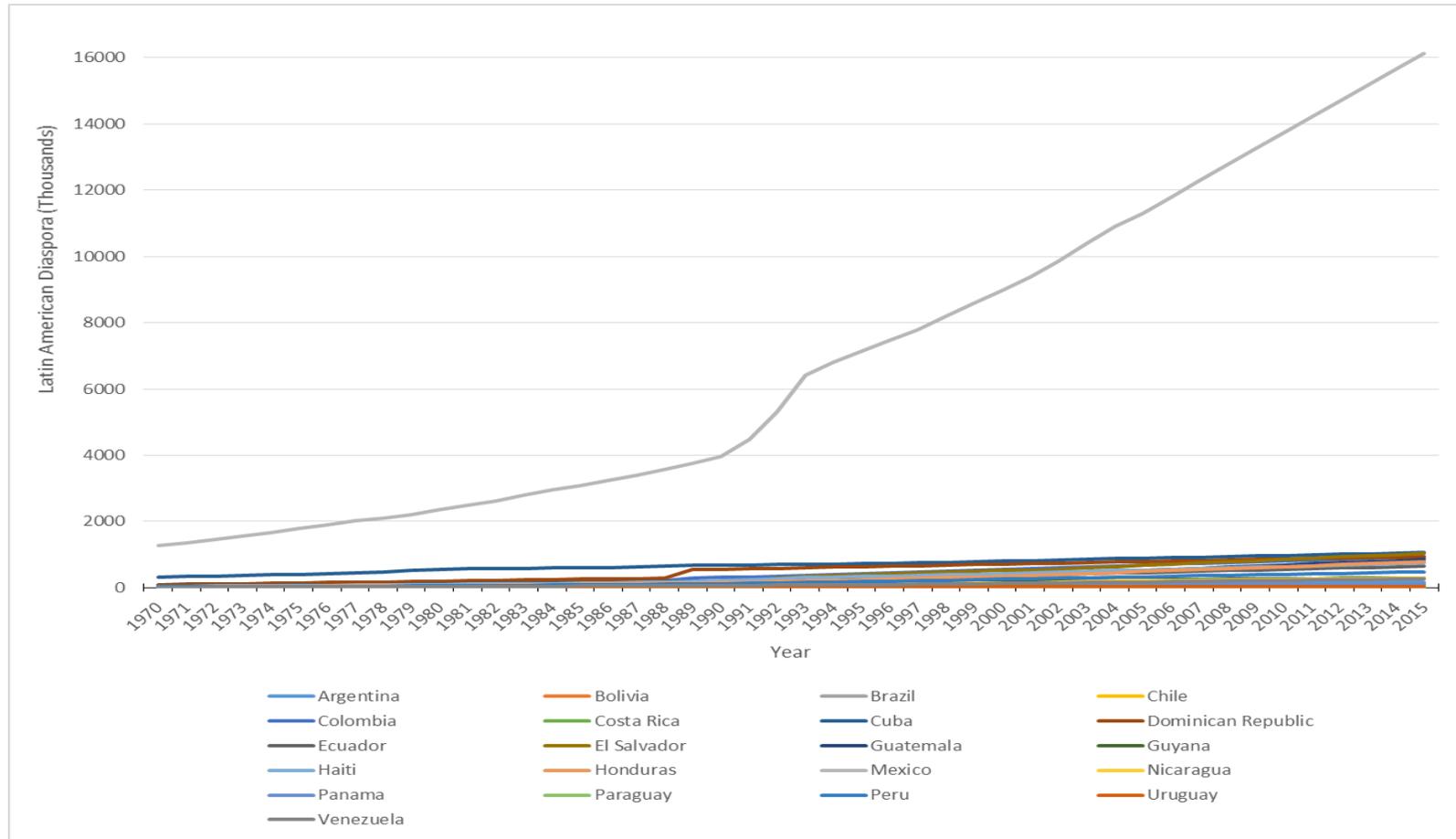
Source: Yearbook of Immigration Statistics. Department of Homeland Security. 1970-2015

Appendix 6 - Latin American Low-Skilled Immigrants Accepted in the United States (Without Mexico), 1970-2015



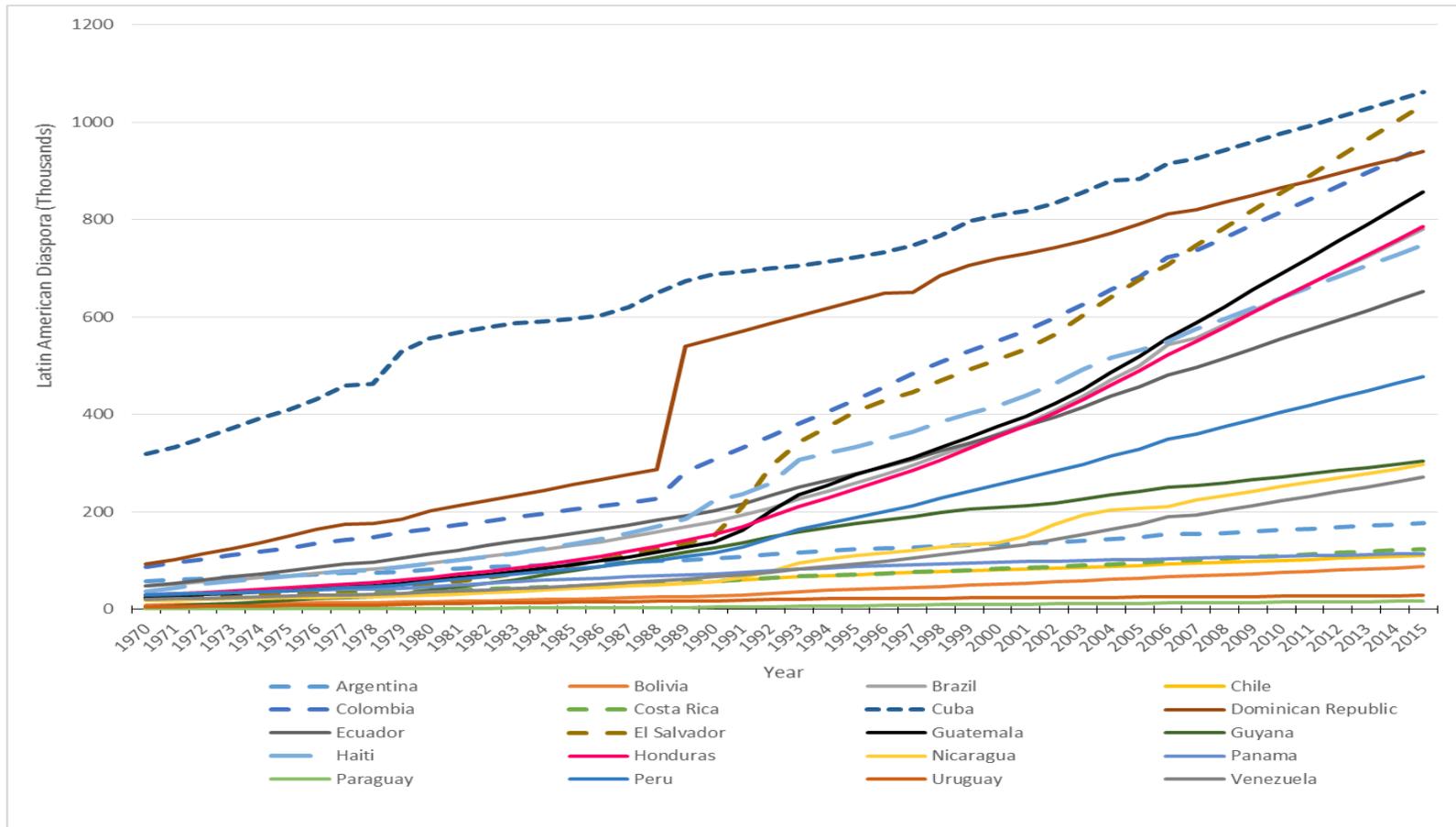
Source: Yearbook of Immigration Statistics. Department of Homeland Security. 1970-2015

Appendix 7 - Latin American Diaspora in the United States (With Mexico), 1970-2015



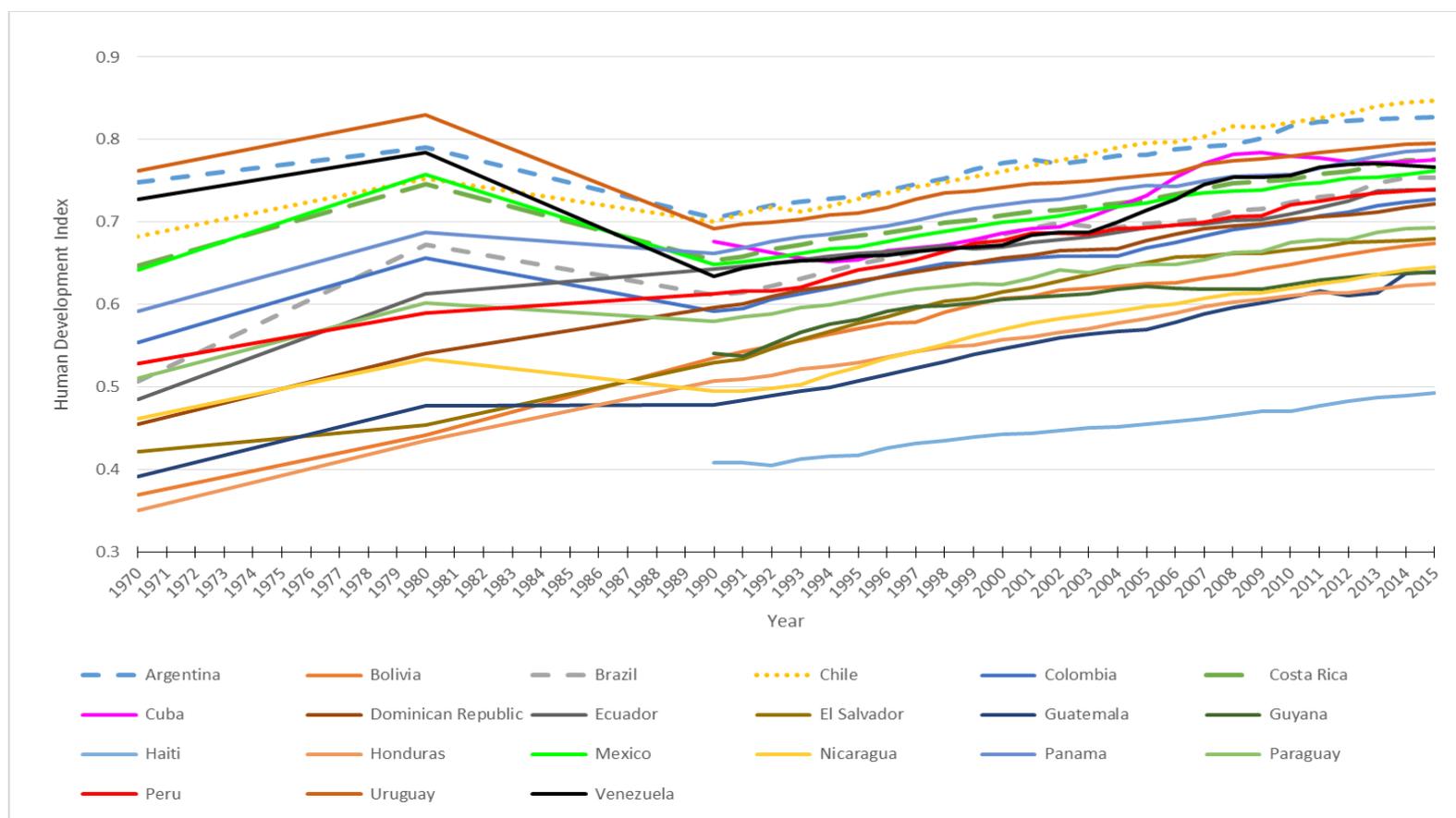
Source: Fitzgerald, Leblang and Teets (2014).

Appendix 8 - Latin American Diaspora in the United States (Without Mexico), 1970-2015



Source: Fitzgerald, Leblang and Teets (2014).

Appendix 9 - Human Development in Latin America, 1970-2015 (by country)



Source: Human Development Index 1990-2015. UNDP HDRs

Appendix 10 - Unit Root Analysis

<i>Variables</i>	<i>Unit Root</i>	<i>Trend</i>	<i>Drift</i>	<i>1st Difference</i>
<i>Independent Variables</i>				
<i>High-skilled</i>	***	***	***	***
<i>Low-skilled</i>	***	***	***	***
<i>Remittances</i>	+++	+++	***	***
<i>Dependent Variables</i>				
<i>Wages</i>	+++	***	***	***
<i>Employment</i>	+++	+++	***	***
<i>GNI</i>	+++	***	***	***
<i>Freedom</i>	***	+++	***	***
<i>Education expenditure</i>	+++	+++	***	***
<i>Primary education</i>	***	+++	***	***
<i>Secondary education</i>	***	+++	***	***
<i>Tertiary education</i>	***	+++	***	***
<i>Health personnel</i>	+++	+++	***	***
<i>Health expenditure</i>	+++	***	***	***
<i>Life expectancy</i>	***	+++	***	***
<i>Control Variables</i>				
<i>GDP growth</i>	+++	***	***	***
<i>Net migration</i>	***	***	***	***
<i>Trade</i>	+++	***	***	***
<i>Democracy</i>	+++	+++	***	***
<i>Population</i>	***	***	***	***
<i>FDI</i>	+++	***	***	***
<i>Homicide rate</i>	***	+++	***	***
<i>MEPV</i>	***	***	***	***
<i>IMF</i>	***	***	***	***
<i>Sanctions</i>	+++	+++	***	***

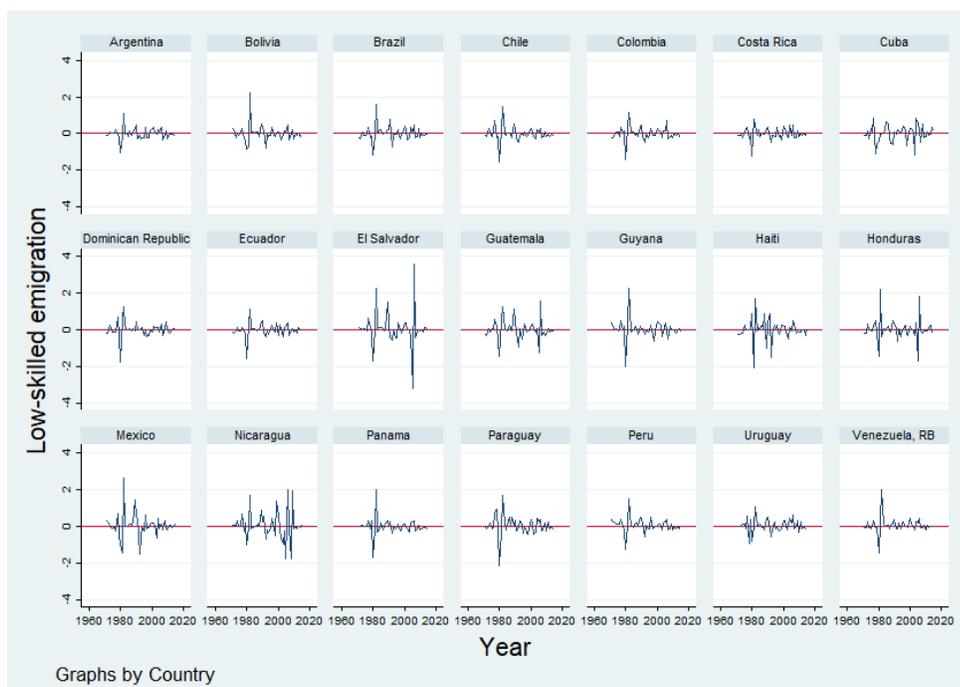
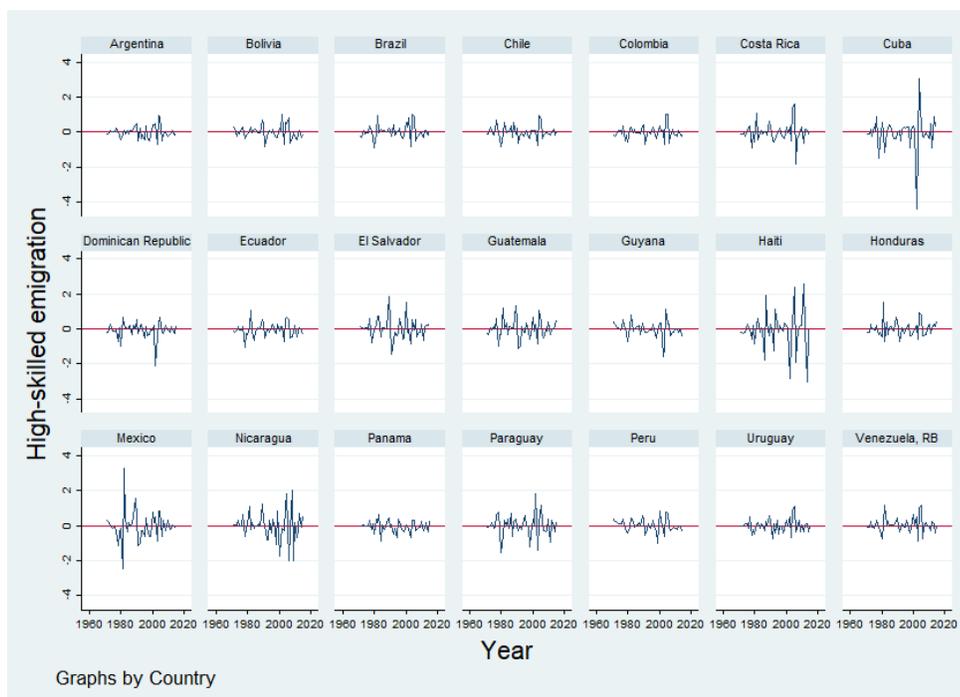
*** stationary

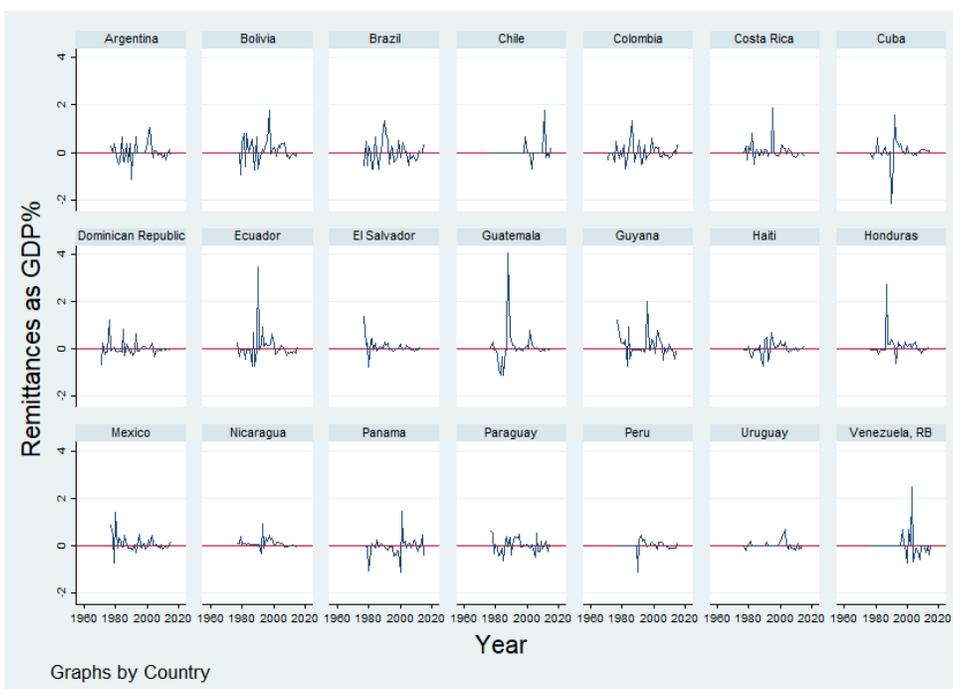
+++ non-stationary

Appendix 11 – Correlation analysis

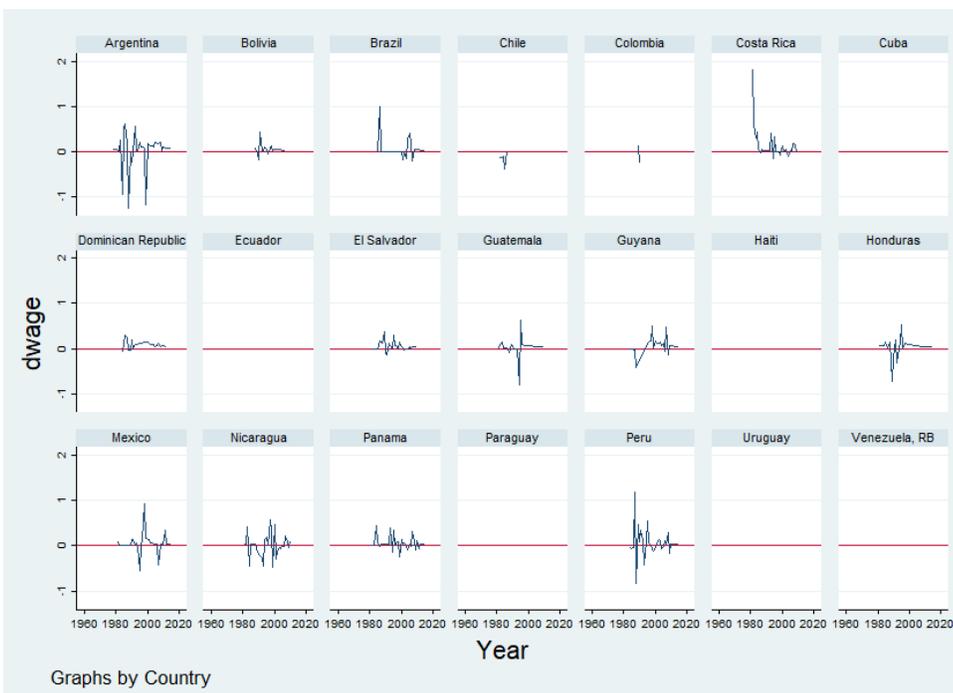
	<i>highskill</i>	<i>lowskill</i>	<i>Remit</i>	<i>wage</i>	<i>gni</i>	<i>freedom</i>	<i>emp</i>	<i>primary</i>	<i>secondary</i>	<i>tertiary</i>	<i>educexp</i>	<i>lifexp</i>	<i>healthexp</i>	<i>brithskillp</i>
<i>highskill</i>	1													
<i>lowskill</i>	0.7389	1												
<i>Remit</i>	-0.0924	-0.0798	1											
<i>wage</i>	-0.0649	0.0078	0.1586	1										
<i>gni</i>	0.0511	0.0802	-0.1409	-0.0398	1									
<i>freedom</i>	0.1474	0.1581	0.243	-0.1999	-0.117	1								
<i>emp</i>	0.1899	0.2073	-0.1229	-0.119	-0.0052	0.0269	1							
<i>primary</i>	-0.0167	-0.0029	0.0323	-0.2155	0.2466	-0.1537	0.0583	1						
<i>secondary</i>	-0.0684	-0.0822	0.0875	0.0481	-0.0579	0.0086	0.0953	0.473	1					
<i>tertiary</i>	-0.1861	-0.2057	0.0965	0.406	-0.0572	-0.4448	0.0255	0.2509	0.1643	1				
<i>educexp</i>	0.0048	0.0499	0.0096	-0.1971	0.0882	-0.2294	0.294	0.3046	0.1239	0.424	1			
<i>lifexp</i>	-0.0168	0.0579	-0.2052	0.0883	0.1649	-0.6567	0.0922	0.3333	-0.0265	0.5952	0.603	1		
<i>healthexp</i>	-0.1273	-0.2092	0.2025	-0.2317	0.0568	-0.3561	0.1464	0.2794	0.0866	0.5325	0.5351	0.4926	1	
<i>brithskillp</i>	0.0628	0.1031	-0.0477	0.2696	0.1492	-0.645	0.2276	0.317	-0.0056	0.6386	0.3949	0.7324	0.518	1

Appendix 12 - Analysis of data on each variable, by country

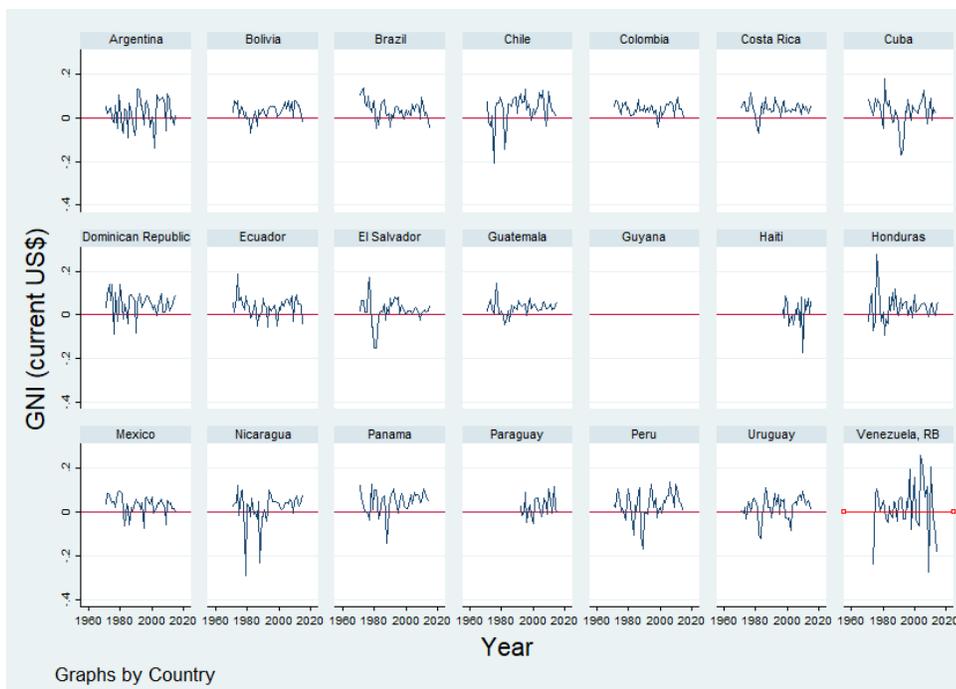
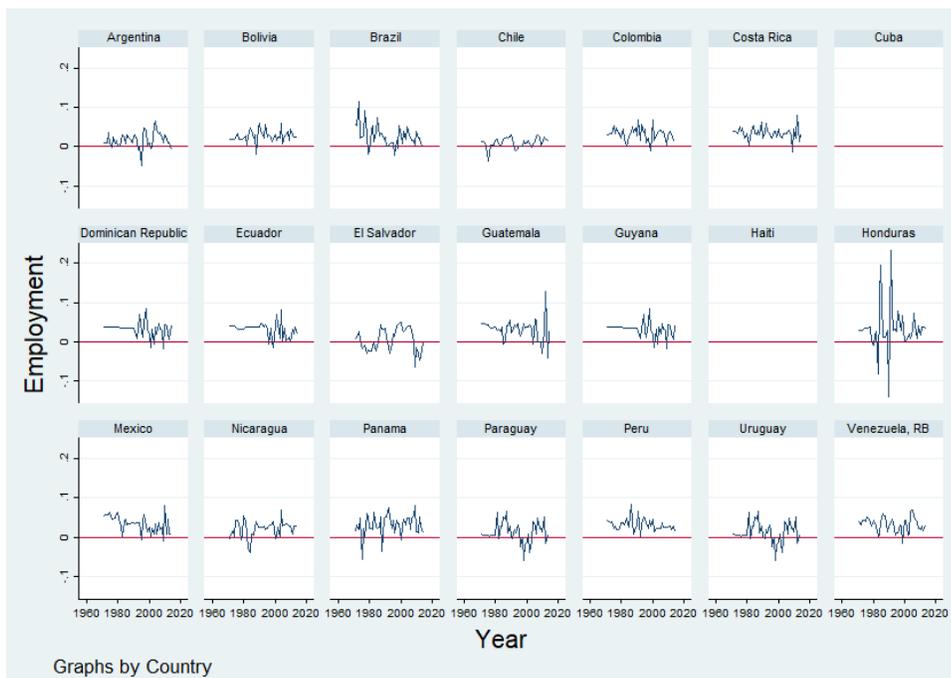


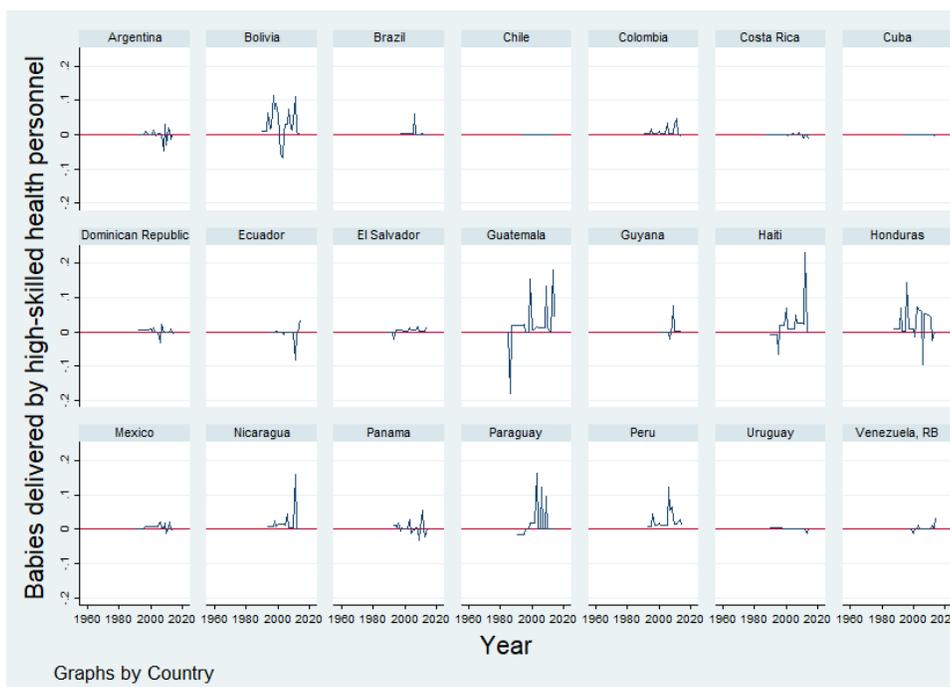
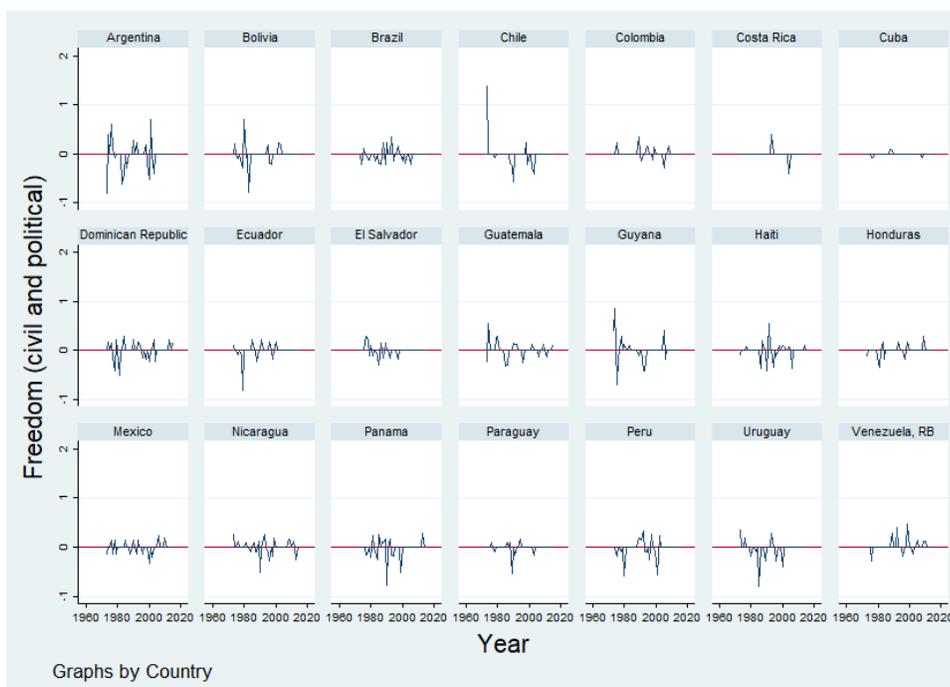


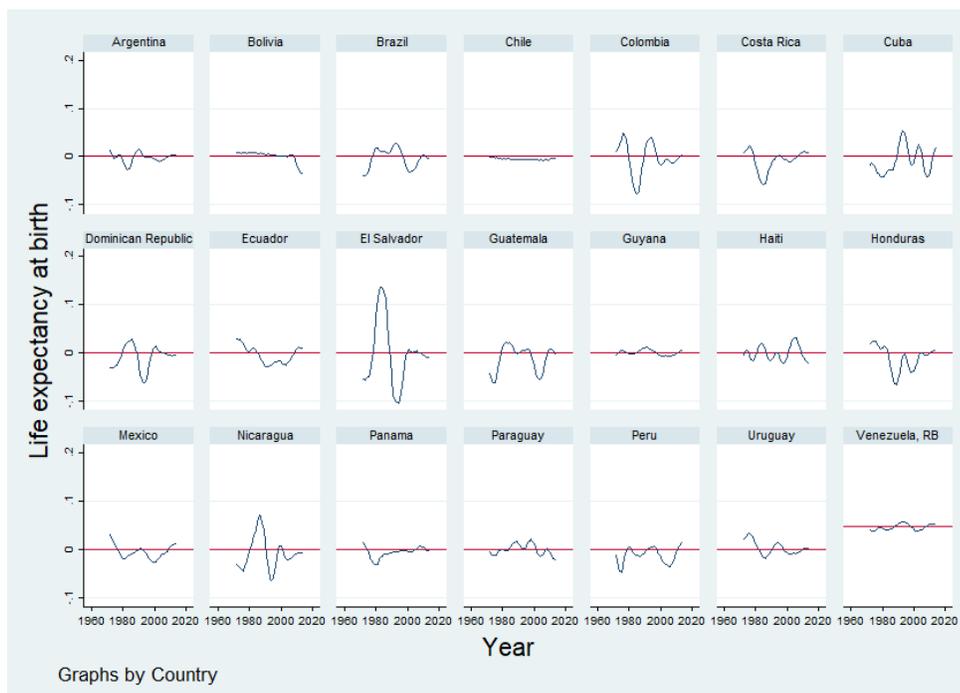
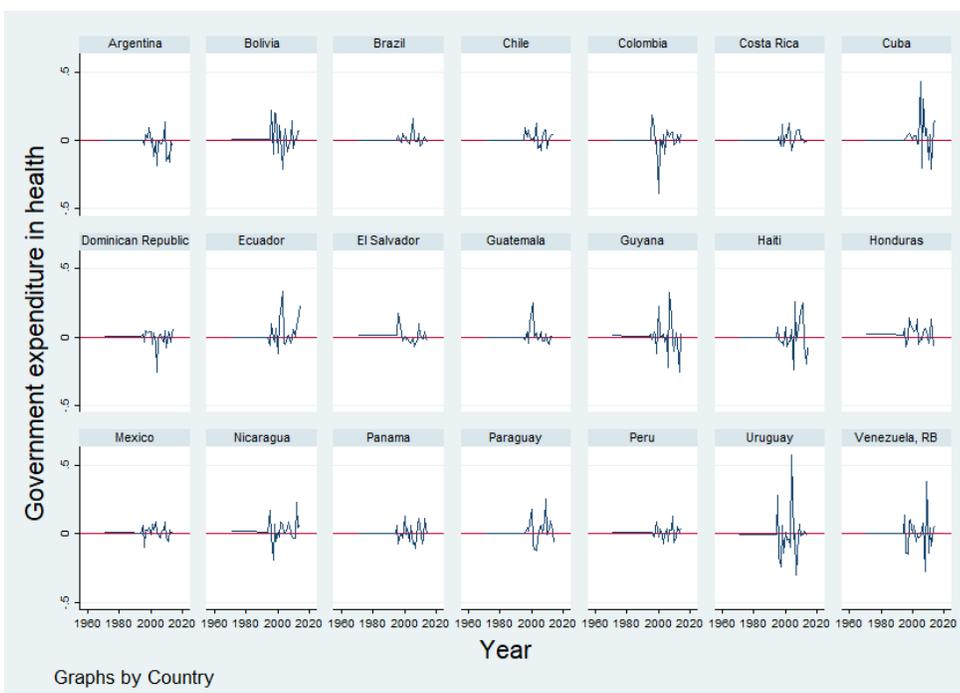
Graphs by Country

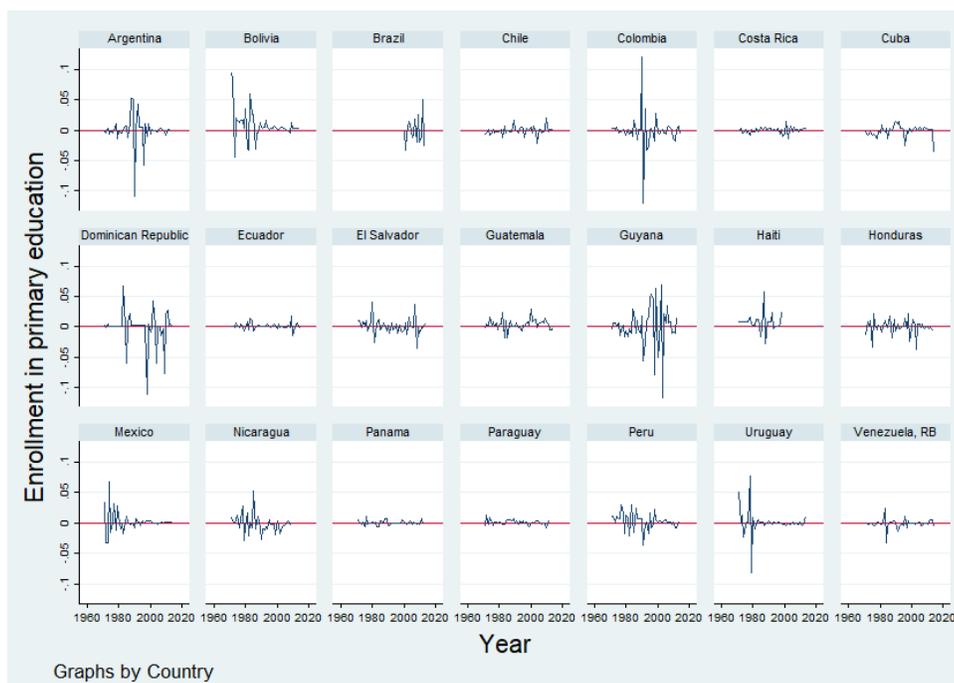
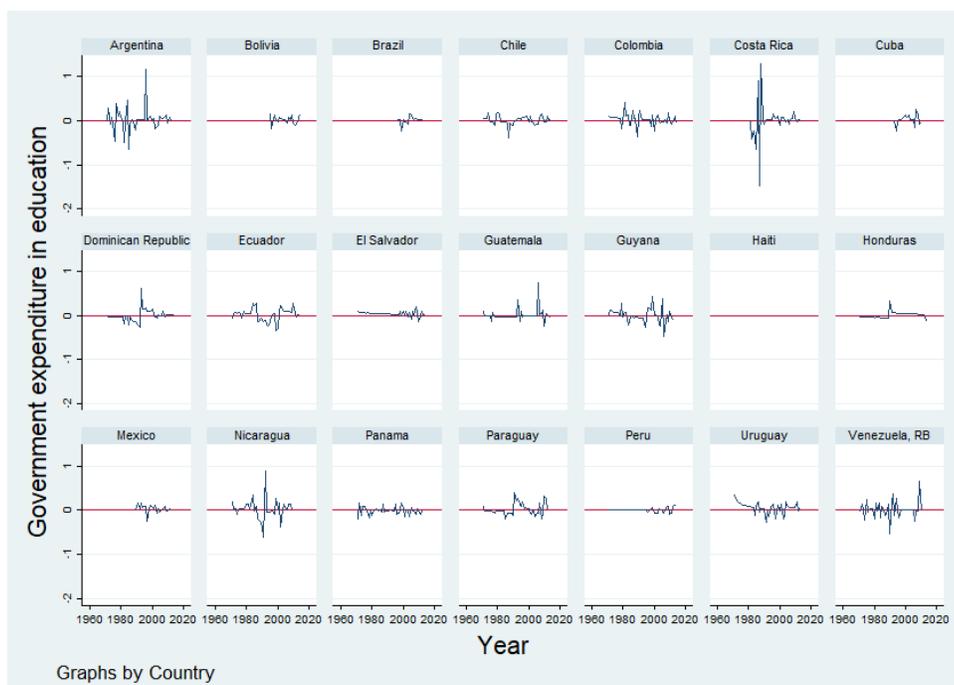


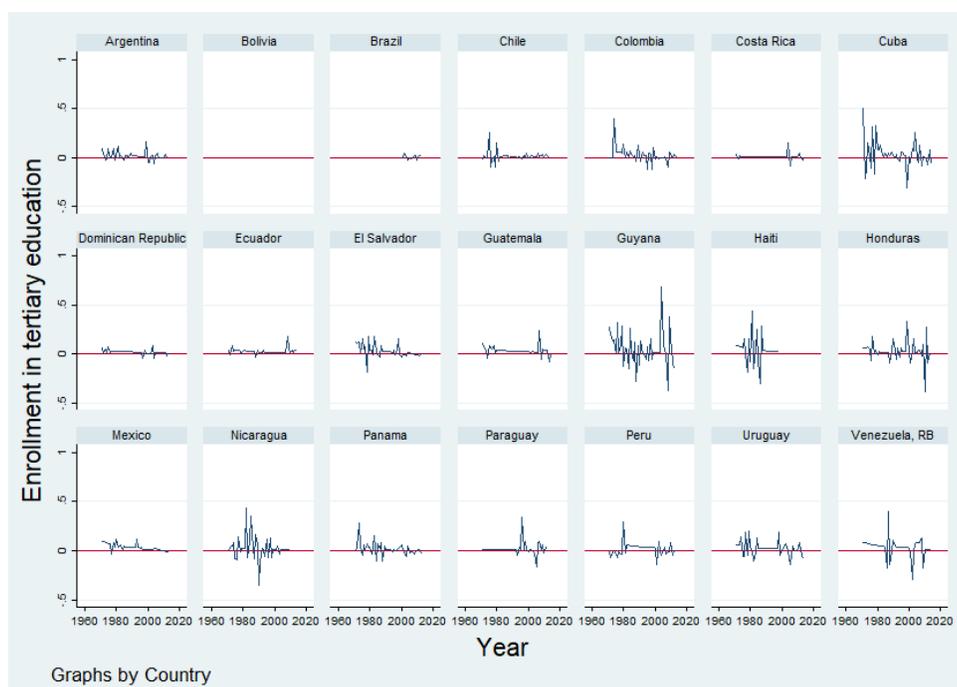
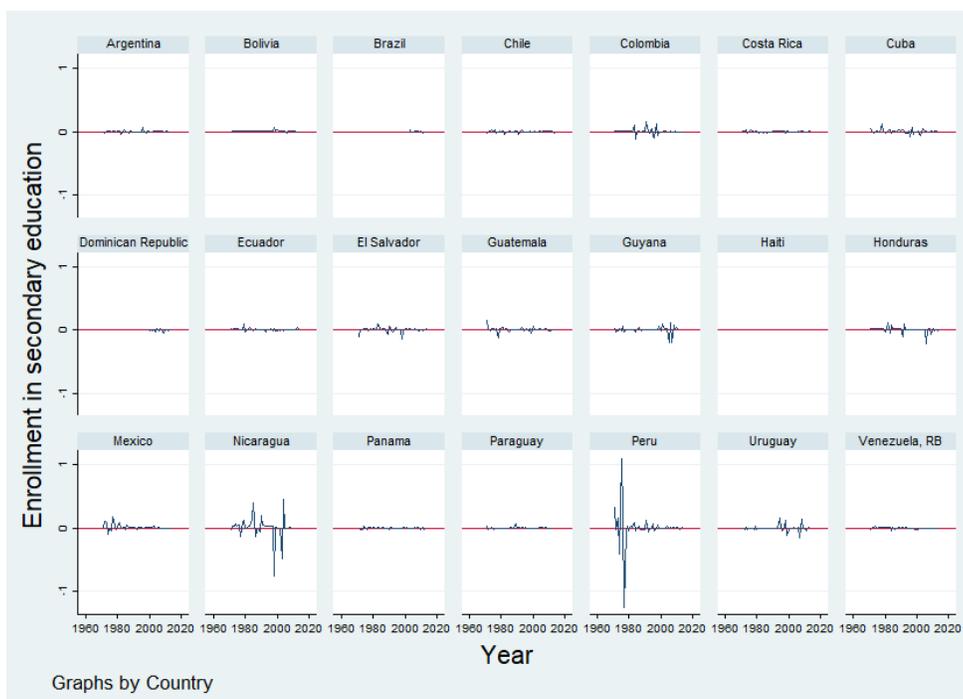
Graphs by Country











Appendix 13 – Effect of migration on human development (GMM IV)

	<i>GMM IV</i>				<i>GMM IV</i>				<i>GMM IV</i>		
	Wages	Employment	GNI	Freedom	Education Expenditure	Primary	Secondary	Tertiary	Life Expect	Health Personnel	Health Expenditure
<i>High-Skilled_d</i>	0.080*** (0.01)	0.157* (0.09)	-0.055 (0.07)	-0.109 (0.32)	5.359 (16.15)	0.032 (0.03)	-0.041 (0.04)	0.029 (0.18)	-0.002 (0.01)	0.000 (0.01)	-0.279 (0.51)
<i>High-Skilled_I</i>	0.068*** (0.01)	0.180 (0.14)	-0.091 (0.30)	-0.042 (0.07)	1.222 (1.22)	0.041 (0.07)	0.011 (0.01)	0.070 (0.75)	-0.003* (0.00)	0.000 (0.01)	0.086* (0.05)
<i>Low-Skilled_d</i>	0.096** (0.05)	0.117** (0.05)	-0.045 (0.05)	0.048 (0.12)	-7.931 (23.02)	0.022** (0.01)	0.482 (4.84)	0.023 (0.13)	0.008 (0.01)	-0.020 (0.65)	-1.736 (12.04)
<i>Low-Skilled_I</i>	0.067*** (0.01)	0.270 (0.32)	-0.103 (0.15)	0.655 (3.69)	1.236 (1.01)	0.091 (0.15)	0.026 (0.02)	0.051 (0.28)	-0.010* (0.00)	0.001 (0.02)	0.168** (0.08)
<i>Remittances_d</i>	-0.198*** (0.03)	0.025*** (0.01)	-0.007 (0.01)	0.006 (0.02)	-9.163 (41.01)	-0.103 (0.16)	-0.092 (0.16)	0.068 (0.21)	-0.003 (0.01)	0.029 (0.03)	-0.586 (0.01)
<i>Remittances_I</i>	-0.074*** (0.01)	0.031*** (0.01)	-0.007 (0.01)	0.006 (0.02)	0.159* (0.08)	0.005** (0.00)	0.004 (0.00)	0.003 (0.02)	-0.001*** (0.00)	0.003* (0.00)	-0.985 (0.01)

Standard errors in parentheses. *p<0.10, **p<0.05, ***p<0.01

Appendix 14. FULL REGRESSIONS

TABLE 7. XTFGLS (Model 1)

	Wages	Wages	Wages	Employment	Employment	Employment	GNI	GNI	GNI	Freedom	Freedom	Freedom
<i>Lagged DV</i>	-1.512*** (0.12)	-1.172*** (0.14)	-1.556*** (0.14)	0.0629 (0.03)	0.0061 (0.01)	-0.00599 (0.01)	0.0165*** (0.00)	0.00255** (0.00)	0.00143* (0.00)	0.156*** (0.05)	0.0724 (0.06)	0.112* (0.05)
<i>HighSkilled_difference</i>	0.0676*** (0.03)			0.0422** (0.02)			-0.033*** (0.01)			-0.0448 (0.04)		
<i>HighSkilled_Lagged</i>	0.035 (0.02)			0.057*** (0.01)			-0.0371*** (0.01)			-0.0704** (0.03)		
<i>LowSkilled_difference</i>		0.169** (0.07)			0.0457*** (0.01)			-0.0157 (0.03)			-0.309*** (0.16)	
<i>LowSkilled_Lagged</i>		0.224*** (0.05)			0.0253*** (0.01)			-0.044** (0.02)			-0.154 (0.10)	
<i>Remittances_difference</i>			-0.0268 (0.03)			0.0135*** (0.00)			-0.015* (0.01)			0.00576 (0.04)
<i>Remittances_Lagged</i>			-0.029* (0.02)			0.0121*** (0.00)			-0.0165** (0.00)			0.035 (0.02)
<i>GDP growth</i>	-0.0133 (0.01)	-0.0172 (0.01)	-0.0119 (0.02)	-0.00674 (0.01)	0.00274 (0.00)	0.00223 (0.00)	0.00439 (0.00)	0.00468 (0.01)	0.00137 (0.00)	0.0474 (0.03)	0.0323 (0.03)	0.0449 (0.03)
<i>Net Migration</i>	0.187* (0.08)	-0.329* (0.13)	0.164* (0.07)	-0.0668 (0.07)	-0.0301 (0.02)	-0.00825 (0.02)	0.024 (0.02)	0.0533 (0.03)	-0.0361* (0.02)	-0.0765 (0.09)	0.0157 (0.15)	-0.169* (0.08)
<i>Trade</i>	-0.038 (0.24)	0.16 (0.23)	-0.219 (0.26)	-0.0998 (0.14)	0.0145 (0.04)	-0.0307 (0.03)	-0.168*** (0.05)	-0.185* (0.08)	-0.0817 (0.05)	0.19 (0.28)	-0.158 (0.36)	0.339 (0.27)
<i>Democracy</i>	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
<i>Population</i>	8.268 (5.87)	16.07** (4.92)	-4.95 (6.35)	19.44*** (2.79)	4.491*** (0.64)	4.190*** (0.55)	-3.111** (0.99)	-0.577 (1.10)	-0.243 (0.94)	-4.718 (6.91)	2.985 (6.11)	1.062 (6.15)
<i>FDI</i>	-0.0693 (0.04)	-0.0108 (0.03)	-0.0326 (0.04)	0.00707 (0.01)	-0.00741* (0.00)	-0.0111** (0.00)	0.00992 (0.01)	0.00976 (0.01)	0.0157* (0.01)	0.0258 (0.03)	-0.00452 (0.03)	0.0286 (0.03)

Homicide Rate	-0.268 (0.16)	-0.0838 (0.12)	-0.12 (0.18)	-0.0113 (0.02)	-0.00688 (0.01)	0.00336 (0.01)	0.0596*** (0.01)	0.0669*** (0.02)	0.0558*** (0.01)	-0.115 (0.06)	-0.0658 (0.07)	-0.111 (0.06)
MEPV	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
High Peak (1990)	0.484*** (0.08)	0.293** (0.09)	0.509*** (0.08)	-0.00465 (0.05)	-0.0138 (0.02)	0.018 (0.01)	0.00381 (0.02)	-0.0107 (0.03)	-0.00925 (0.02)	0.0304 (0.14)	0.321 (0.18)	0.0433 (0.13)
IMF	0.0185 (0.02)	0.0308 (0.02)	0.000869 (0.02)	0.0127 (0.01)	-0.00148 (0.00)	0.00427 (0.00)	0.00416 (0.00)	0.00552 (0.01)	-0.00056 (0.00)	0.0296 (0.03)	0.0697* (0.03)	0.0411 (0.03)
Sanctions	-0.816*** (0.21)	-0.439* (0.19)	-0.822*** (0.24)	-0.214** (0.07)	-0.0343* (0.02)	-0.000213 (0.01)	0.126*** (0.02)	0.108*** (0.03)	0.0394* (0.02)	0.248 (0.15)	0.401* (0.20)	0.14 (0.14)

TABLE 7. XTPCSE (Model 2)

	Wages	Wages	Wages	Employment	Employment	Employment	GNI	GNI	GNI	Freedom	Freedom	Freedom
Lagged DV	-1.477*** (0.09)	-1.145*** (0.08)	-1.521*** (0.09)	-0.000421 (0.00)	-0.000749 (0.00)	-0.000883 (0.00)	0.000731 (0.00)	0.000352 (0.00)	0.0000342 (0.00)	0.0606*** (0.01)	0.0621*** (0.01)	0.0633*** (0.01)
HighSkilled_difference	0.0665*** (0.02)			0.00362* (0.00)			-0.00269 (0.00)			-0.0169** (0.01)		
HighSkilled_Lagged	0.0355** (0.01)			0.00302*** (0.00)			-0.00482** (0.00)			-0.00203 (0.00)		
LowSkilled_difference		0.160*** (0.04)			0.00431 (0.00)			-0.00175 (0.00)			0.00368 (0.01)	
LowSkilled_Lagged		0.221*** (0.03)			0.00193* (0.00)			-0.000828 (0.00)			0.00198 (0.00)	
Remittances_difference			-0.0277* (0.02)		-0.0174*** (0.00)	0.00 (0.00)			-0.00614 (0.00)			0.0207*** (0.01)
Remittances_Lagged			-0.0297***			0.00			-0.00257***			0.00279**

TABLE 7. XTFGLS (Model 3. 5-year-average)

	Wages	Employment	GNI	Freedom	Wages	Employment	GNI	Freedom	Wages	Employment	GNI	Freedom
<i>Lagged DV</i>	0.0433*** (0.00)	0.15 (0.09)	0.0692 (0.08)	0.0069 (0.07)	0.132 (0.15)	0.0413 (0.11)	0.105 (0.08)	0.133** (0.05)	0.0517 (0.04)	-0.538*** (0.25)	0.113 (0.17)	-0.0302 (0.06)
<i>HighSkilled_difference</i>	0.1000*** (0.00)	0.00524*** (0.00)	0.00936** (0.00)	0.0131* (0.01)								
<i>HighSkilled_Lagged</i>	-0.0352*** (0.00)	0.00302*** (0.00)	0.00502** (0.00)	0.00695** (0.00)								
<i>LowSkilled_difference</i>					0.08 (0.06)	0.00623*** (0.00)	0.0112*** (0.00)	0.0144** (0.01)				
<i>LowSkilled_Lagged</i>					-0.0602 (0.11)	0.00135 (0.00)	0.00548** (0.00)	0.00361 (0.00)				
<i>Remittances_difference</i>									0.0281** (0.01)	0.00725** (0.00)	0.011 (0.01)	0.0166*** (0.00)
<i>Remittances_Lagged</i>									0.0135 (0.01)	-0.0044 (0.00)	0.07*** (0.00)	0.00154 (0.00)
<i>GDP growth</i>	-0.0167*** (0.00)				0.0702 (0.05)					-0.0137*** (0.00)		0.00 (0.00)
<i>Net Migration</i>	0.116*** (0.01)				0.161 (0.27)				0.182*** (0.04)	0.0626** (0.02)	0.0464** (0.01)	
<i>Trade</i>	0.797*** (0.03)	0.0159* (0.01)	0.0320* (0.01)	0.0468 (0.04)	-0.521 (0.58)	0.0114 (0.01)	0.0153 (0.02)	0.0398 (0.03)	-0.162** (0.06)	0.175* (0.09)	-0.162*** (0.04)	-0.0168 (0.06)
<i>Democracy</i>	0.00 (0.00)				0.00 (0.00)	0.00 (0.00)				0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
<i>Population</i>	10.22*** (0.42)	0.365* (0.17)	-0.839* (0.36)	1.305* (0.58)	-2.943 (6.35)	0.231 (0.22)	-0.728* (0.34)	1.635** (0.55)	-4.334 (3.86)	-2.104 (1.36)	-1.511 (0.94)	
<i>MEPV</i>	0.00 (0.00)	-0.0144 (0.01)	-0.00238 (0.01)	0.0682 (0.05)	0.00 (0.00)	-0.0147 (0.01)	-0.00561 (0.01)		0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.0114 (0.01)
<i>Sanctions</i>	0.00	-0.0168*	-0.0148	-0.0296	0.00	0	-0.0149		0.00	0.00	0.00	

	(0.00)	(0.01)	(0.01)	(0.02)	(0.00)	(0.00)	(0.01)		(0.00)	(0.00)	(0.00)	
IMF		0.00176	-0.00101	-0.0104								
		(0.00)	(0.00)	(0.01)								
FDI						0.00228					0.00534	-0.00144
						(0.00)					(0.01)	(0.01)
Homicide Rate		0.00043		-0.0214		-0.00291		0.00		0.00	0.00317	
		(0.00)		(0.01)		(0.00)		(0.00)		(0.00)	(0.01)	
_cons	-0.588***	0.0434***	0.0948***	0.0432	-0.347	0.0258*	0.0908***	0.000127	0.387*	-0.0545	0.169*	0.0265
	(0.03)	(0.01)	(0.02)	(0.03)	(0.70)	(0.01)	(0.02)	(0.02)	(0.19)	(0.08)	(0.07)	(0.04)
N	9	101	126	102	9	65	126	106	14	12	20	52

TABLE 7. XTFGLS (Model 4. 5-year-average)

	Wages	Employment	GNI	Freedom	Wages	Employment	GNI	Freedom	Wages	Employment	GNI	Freedom
Lagged DV	0.0449***	0.114	0.117	-0.0552	0.159	0.0458	0.129	0.154***	-0.0316	0.545*	0.0722	0.134***
	(0.00)	(0.13)	(0.10)	(0.05)	(0.15)	(0.15)	(0.10)	(0.04)	(0.07)	(0.25)	(0.18)	(0.06)
HighSkilled_difference	0.101***	0.00501**	0.0111**	0.0131**								
	(0.00)	(0.00)	(0.00)	(0.01)								
HighSkilled_Lagged	0.0361***	0.00369***	0.00488**	0.00598**								
	(0.00)	(0.00)	(0.00)	(0.00)								
LowSkilled_difference					0.0978	0.0041*	0.0132**	0.014*				
					(0.06)	(0.00)	(0.00)	(0.00)				
LowSkilled_Lagged					-0.0821	0.00179	0.00520**	0.00628*				
					(0.11)	(0.00)	(0.00)	(0.00)				
Remittances_difference									-0.004	0.00702**	0.0106	0.0224**

									(0.01)	(0.00)	(0.01)	(0.01)
Remittances_Lagged									0.008	-0.04	0.007**	0.00424**
									(0.01)	(0.00)	(0.00)	(0.00)
GDP growth	-0.0159***				0.0727					-0.0131***		
	(0.00)				(0.05)					(0.00)		
Net Migration	0.117***				0.231					0.0577**	0.0525***	
	(0.01)				(0.27)					(0.02)	(0.02)	
Trade	0.792***	0.0102	0.0261	0.0351	-0.534	0.0113	0.0118	0.015	0.0959	0.182*	-0.164***	0.00219
	(0.03)	(0.01)	(0.02)	(0.02)	(0.58)	(0.01)	(0.02)	(0.02)	(0.09)	(0.09)	(0.04)	(0.03)
Democracy	0.00				0.00	0.00				0.00	0.00	
	(0.00)				(0.00)	(0.00)				(0.00)	(0.00)	
Population	10.28***	0.640*	-0.387	1.806*	-4.05	0.265	-0.373	2.493**	0.554	-1.666	-2.397*	2.001**
	(0.42)	(0.25)	(0.46)	(0.81)	(6.36)	(0.34)	(0.42)	(0.95)	(1.79)	(1.37)	(1.09)	(0.70)
MEPV	0.00	-0.0125	-0.00555	0.0930*	0.00	-0.0166	-0.00869					
	(0.00)	(0.01)	(0.01)	(0.05)	(0.00)	(0.01)	(0.01)					
Sanctions	0.00	-0.0119	-0.00194	-0.00844	0.00	0.00491	-0.00162		-0.0582	0.00	0.00	
	(0.00)	(0.01)	(0.01)	(0.02)	(0.00)	(0.01)	(0.01)		(0.06)	(0.00)	(0.00)	
IMF		0.00193	-0.00196	-0.00716		0.00138					0.0123	
		(0.00)	(0.00)	(0.01)		(0.00)					(0.01)	
Homicide Rate		0.000115		-0.0148		-0.00485		0.00		0.00	0.00665	-0.0217
		(0.00)		(0.02)		(0.01)		(0.00)		(0.00)	(0.01)	(0.02)
_cons	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.144	0.0366**
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.09)	(0.01)
N	9	101	126	102	9	65	126	104	74	12	20	101

TABLE 8. XTFGLS (Model 1)

	Life Expectancy	Life Expectancy	Life Expectancy	Health Expendit	Health Expendit	Health Expendit	Births	Births	Births
<i>Lagged DV</i>	0.0260*** (0.00)	0.0274*** (0.00)	0.0271*** (0.00)	-0.0233 (0.02)	-0.0406 (0.02)	-0.0198 (0.02)	0.0537*** (0.01)	0.0526*** (0.00976)	0.0198 (0.0193)
<i>HighSkilled_difference</i>				-0.0190* (0.01)			-0.00305 (0.00)		
<i>HighSkilled_Lagged</i>				-0.016** (0.00)			0.00142 (0.00)		
<i>LowSkilled_difference</i>		-0.0000652 (0.00)			-0.0093 (0.01)			-0.00947** (0.00253)	
<i>LowSkilled_Lagged</i>		-0.00277*** (0.00)			-0.015*** (0.00)			-0.01 (0.02)	
<i>Remittances_difference</i>			-0.000162 (0.00)			-0.00498 (0.01)			-0.00498 (0.0114)
<i>Remittances_Lagged</i>			-0.000296*** (0.00)			-0.00128 (0.00)			-0.00128 (0.00172)
<i>GDP growth</i>	0.0000135 (0.00)	0.0000349 (0.00)	0.0000547 (0.00)	0.00207 (0.00)	0.00258 (0.00)	0.0024 (0.00)	0.00101 (0.00)	0.0011 (0.00)	0.0024 (0.00)
<i>Trade</i>	0.00278** (0.00)	0.00291** (0.00)	0.00228* (0.00)	0.0213 (0.05)	0.0163 (0.05)	0.0118 (0.05)	0.00568 (0.02)	0.00427 (0.02)	0.0118 (0.05)
<i>Democracy</i>	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
<i>Population</i>	-0.0245 (0.02)	-0.0232 (0.02)	-0.0377** (0.01)	0.511 (0.74)	0.0166 (0.85)	1.067 (0.72)	0.0387 (0.19)	0.0121 (0.19)	1.067 (0.72)
<i>FDI</i>	-0.0000239 (0.00)	-0.0000417 (0.00)	-0.0000242 (0.00)	0.00506 (0.00)	0.00417 (0.00)	0.0043 (0.00)	0.000972 (0.00)	0.00137 (0.00)	0.0043 (0.00)
<i>Homicide Rate</i>	0.000234	0.000369	0.000177	-0.00887	-0.00891	-0.00678	-0.00239	-0.00231	-0.00678

	(0.00)	(0.00)	(0.00)	(0.02)	(0.02)	(0.02)	(0.00)	(0.01)	(0.02)
MEPV	-0.000548**	-0.000529**	-0.000557**	-0.00687	-0.00644	-0.00558	0.00447**	0.00440*	-0.00558
	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)	(0.01)
High Peak (1990)	-0.00539***	-0.00545***	-0.00496***	0.0165	0.00871	0.00233	0.00306	0.00326	0.00233
	(0.00)	(0.00)	(0.00)	(0.05)	(0.04)	(0.05)	(0.01)	(0.01)	(0.05)
IMF	0.0000123	0.0000285	0.0000196	0.0098	0.0107	0.0102	0.00186	0.00176	0.0102
	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)	(0.01)
Sanctions	-0.00011	0.000087	-0.000203	-0.0238	-0.0229	-0.018	-0.00342	-0.00287	-0.018
	(0.00)	(0.00)	(0.00)	(0.02)	(0.02)	(0.02)	(0.01)	(0.01)	(0.02)

TABLE 8. XTPCSE (Model 2)

	Life Expectancy	Life Expectancy	Life Expectancy	Health Expendit	Health Expendit	Health Expendit	Births	Births	Births
Lagged DV	0.0211***	0.0209***	0.0192***	0.0748***	0.0864***	0.0584***	0.0357***	0.0353***	0.0584***
	(0.00)	(0.00)	(0.00)	(0.02)	(0.02)	(0.02)	(0.00)	(0.00)	(0.00)
HighSkilled_difference	0.000073			-0.0182***			-0.00342*		
	(0.00)			(0.00)			(0.00)		
HighSkilled_Lagged	0.000112			-0.0114***			0.001		
	(0.00)			(0.00)			(0.00)		
LowSkilled_difference		-0.02*			-0.0108**			-0.00803***	
		(0.00)			(0.01)			(0.00)	
LowSkilled_Lagged		-0.02*			-0.0107***			-0.000793***	
		(0.00)			(0.00)			(0.00)	
Remittances_difference			-0.000110*			-0.00688			-0.00688
			(0.00)			(0.01)			(0.01)
Remittances_Lagged			-0.000193***			0.000727			0.000727

			(0.00)			(0.00)			(0.00)
GDP growth	-0.00000224	-0.00000126	-0.000000466	0.000902	0.00106	0.00124	0.000421	0.00039	0.00124
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Trade	0.0000819	0.0000764	0.0000495	0.0421	0.0401	0.0413	-0.00345	-0.00421	0.0413
	(0.00)	(0.00)	(0.00)	(0.03)	(0.03)	(0.03)	(0.01)	(0.01)	(0.03)
Population	0.113***	0.112***	0.121***	-2.596**	-3.095**	-1.418	-0.169	-0.176	-1.418
	(0.03)	(0.03)	(0.03)	(0.94)	(1.00)	(0.85)	(0.15)	(0.18)	(0.85)
FDI	-0.000009	-0.00000723	-0.0000103	0.00353	0.00347	0.00392	0.00287**	0.00252*	0.00392
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
MEPV	0.0000024	0.00000241	0.000000546	-0.00233	-0.00268	-0.0011	0.00444*	0.00437*	-0.0011
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
High Peak (1990)	-0.000262	-0.000037	0.000254	0.0195	0.0045	0.00965	-0.000659	-0.00329	0.00965
	(0.00)	(0.00)	(0.00)	(0.03)	(0.03)	(0.03)	(0.01)	(0.01)	(0.03)
IMF	-0.0000141	-0.0000171	-0.0000142	0.00931	0.00984	0.00984	0.00481	0.00523	0.00984
	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)	(0.01)
Sanctions	0.0000539	0.0000461	0.0000655	-0.00975	-0.00948	-0.0102	0.00181	0.000837	-0.0102
	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.00)	(0.00)	(0.01)

TABLE 8. XTFGLS (Model 3. 5-year-average)

	Births	HealthExpend	LifeExpect	Births	HealthExpend	LifeExpect	Births	HealthExpend	LifeExpect
<i>Lagged DV</i>	3.433*** (0.31)	0.939* (0.39)	0.922*** (0.17)	-0.605*** (0.03)	-0.0136 (0.03)	-0.0120*** (0.00)	2.535*** (0.28)	-0.498 (0.50)	0.576*** (0.09)
<i>HighSkilled_difference</i>	0.057*** (0.00)	0.0218 (0.02)	0.002*** (0.00)						
<i>HighSkilled_Lagged</i>	0.020*** (0.00)	0.001* (0.00)	0.006*** (0.00)						
<i>LowSkilled_difference</i>				-0.0141*** (0.00)	0.00414 (0.00)	0.006*** (0.00)			
<i>LowSkilled_Lagged</i>				0.0246*** (0.00)	-0.000984 (0.00)	0.005*** (0.00)			
<i>Remittances_difference</i>							-0.017*** (0.00)	0.009** (0.02)	0.001*** (0.00)
<i>Remittances_Lagged</i>							0.029*** (0.00)	0.000529 (0.01)	0.004*** (0.00)
<i>GDP growth</i>	-0.00149** (0.00)	0.00677 (0.01)	0.000946* (0.00)	-0.0109*** (0.00)	0.00342 (0.00)	-0.0003** (0.00)	-0.0108*** (0.00)	0.0249* (0.01)	
<i>Net Migration</i>	-0.0224*** (0.00)	-0.120*** (0.03)	-0.00152 (0.00)	-0.0330*** (0.00)		0.00383*** (0.00)	-0.0344*** (0.00)	-0.175** (0.07)	-0.000021 (0.00)
<i>Trade</i>	-0.0874*** (0.01)	0.0123 (0.24)	-0.00187 (0.01)	-0.00222 (0.01)	0.000967 (0.04)	0.00927*** (0.00)			-0.00208** (0.00)
<i>Democracy</i>	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
<i>Population</i>	0.553*** (0.15)	1.168 (2.29)	-0.149 (0.09)	0.587*** (0.08)	1.335* (0.57)		-0.0746 (0.12)	2.886 (5.63)	-0.00259 (0.02)
<i>FDI</i>	0.0352*** (0.00)		-0.00104* (0.00)				0.0354*** (0.00)	-0.0259* (0.01)	-0.0000349 (0.00)

<i>MEPV</i>		0.00 (0.00)	0.00 (0.00)				0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
<i>Sanctions</i>	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
<i>Homicide Rate</i>		0.0252* (0.01)	-0.00144 (0.00)		0.0347*** (0.01)	0.312*** (0.06)		-0.0117 (0.04)	0.0006** (0.00)
<i>_cons</i>	-0.154*** (0.02)	-0.022 (0.12)	0.00473 (0.01)	0.225*** (0.01)	-0.0136 (0.03)	-0.0120*** (0.00)	0.126*** (0.01)	0.00284 (0.24)	0.0027 (0.00)
<i>N</i>	10	12	12	10	44	12	10	12	20

TABLE 8. XTPCSE (Model 4. 5-year-average)

	Births	HealthExpend	LifeExpect	Births	HealthExpend	LifeExpect	Births	HealthExpend	LifeExpect
<i>Lagged DV</i>	3.530*** (0.31)	1.092** (0.40)	0.855*** (0.10)	-0.565*** (0.04)	-0.554 (0.32)	0.315*** (0.06)	2.469*** (0.28)	-0.656 (0.51)	0.609*** (0.11)
<i>HighSkilled_difference</i>	0.054*** (0.00)	0.0004* (0.00)	0.002*** (0.00)						
<i>HighSkilled_Lagged</i>	0.019*** (0.00)	0.001*** (0.00)	0.005*** (0.00)						
<i>LowSkilled_difference</i>				-0.0144*** (0.00)	0.00876 (0.01)	0.00237*** (0.00)			
<i>LowSkilled_Lagged</i>				0.0258*** (0.00)	0.00214 (0.02)	0.00165*** (0.00)			
<i>Remittances_difference</i>							-0.015*** (0.00)	0.0003* (0.00)	0.002*** (0.00)
<i>Remittances_Lagged</i>							0.027***	-0.000597	0.004***

						(0.00)	(0.01)	(0.00)	
GDP growth	-0.00119*	-0.00112	0.000812***	-0.0110***	0.0126	-0.000314**	-0.0107***	0.0246*	
	(0.00)	(0.01)	(0.00)	(0.00)	(0.01)	(0.00)	(0.00)	(0.01)	
Net migration	-0.0240***	-0.114***	-0.00235*	-0.0378***	-0.103	0.00402***	-0.0331***	-0.174**	-0.000331
	(0.00)	(0.03)	(0.00)	(0.00)	(0.07)	(0.00)	(0.00)	(0.07)	(0.00)
Trade	-0.0876***	0.139	0.00255	0.00159	-0.223	0.00897***			-0.00138
	(0.01)	(0.25)	(0.00)	(0.01)	(0.23)	(0.00)			(0.00)
Democracy	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Population	0.625***	1.401	-0.144*	0.702***	-0.866		-0.0716	2.617	0.00545
	(0.15)	(2.31)	(0.06)	(0.09)	(1.44)		(0.12)	(5.63)	(0.03)
FDI	0.0358***		-0.00112***				0.0346***	-0.0299*	-0.000147
	(0.00)		(0.00)				(0.00)	(0.01)	(0.00)
MEPV		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Sanctions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Homicide Rate		0.0250*	-0.00130***		0.0212*	0.00121***		-0.0077	0.000493
		(0.01)	(0.00)		(0.01)	(0.00)		(0.04)	(0.00)
_cons	-0.160***	0.00935	0.0073	0.235***	0.0608	-0.0129***	0.126***	0.00	0.0027
	(0.02)	(0.12)	(0.01)	(0.01)	(0.18)	(0.00)	(0.01)	(0.00)	(0.00)
N	10	12	12	10	12	12	10	12	20

TABLE 9. XTFGLS (Model 1)

	Education Exp	Education Exp	Education Exp	Primary Educ	Primary Educ	Primary Educ	Secondary Educ	Secondary Educ	Secondary Educ	Tertiary Educ	Tertiary Educ	Tertiary Educ
Lagged DV	-0.108 (0.10)	-0.124 (0.11)	-0.263* (0.11)	0.803*** (0.07)	0.896*** (0.08)	0.866*** (0.08)	0.0722* (0.03)	0.0752* (0.04)	0.0915* (0.04)	-0.111 (0.0598)	-0.116* (0.0581)	-0.0885 (0.0589)
HighSkilled_difference	0.025 (0.07)			0.0000348 (0.00)			0.00337 (0.00)			0.0943 (0.13)		
HighSkilled_Lagged	0.000176 (0.06)			0.00315 (0.00)			0.00292 (0.00)			0.0382 (0.0654)		
LowSkilled_difference		0.23 (0.23)			0.0206** (0.01)			-0.00339 (0.01)			0.0691 (0.148)	
LowSkilled_Lagged		0.0135 (0.14)			0.00546 (0.00)			0.00442 (0.01)			0.183*** (0.0661)	
Remittances_difference			0.0177 (0.05)			0.00379* (0.00)			-0.00157 (0.00)			0.0389 (0.164)
Remittances_Lagged			0.092* (0.05)			-0.000514 (0.00)			0.00233 (0.00)			0.0666** (0.0262)
GDP growth	0.00204 (0.04)	0.00957 (0.04)	-0.0107 (0.04)	-0.00620*** (0.00)	-0.00490** (0.00)	-0.00649*** (0.00)	-0.000251 (0.00)	-0.000585 (0.00)	-0.000559 (0.00)	-0.0171 (0.0524)	-0.0227 (0.0501)	-0.0425 (0.0515)
Net Migration	0.0682 (0.17)	0.0646 (0.22)	0.103 (0.14)	-0.0318*** (0.01)	-0.0247** (0.01)	-0.0238** (0.01)	-0.00259 (0.01)	-0.00615 (0.01)	-0.00227 (0.01)			
Trade	-0.18 (0.45)	-0.0829 (0.47)	-0.576 (0.44)	0.0429* (0.02)	0.0432* (0.02)	0.024 (0.02)	-0.00994 (0.02)	-0.0137 (0.03)	-0.0173 (0.02)	-0.701 (0.604)	-0.44 (0.586)	-0.326 (0.602)
Democracy	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
Population	2.462 (14.72)	3.597 (14.81)	22.64 (14.59)	-0.479 (0.42)	-0.691 (0.37)	-0.762* (0.37)	2.668*** (0.62)	2.508*** (0.64)	2.803*** (0.62)	-18.12 (11.48)	-9.203 (11.23)	-8.426 (11.5)
FDI	0.0117 (0.05)	0.0214 (0.05)	-0.000818 (0.05)	-0.0000392 (0.00)	0.000207 (0.00)	0.000185 (0.00)	-0.000472 (0.00)	-0.000367 (0.00)	-0.000649 (0.00)	0.0288 (0.0757)	0.0402 (0.0727)	0.0226 (0.0732)
Homicide Rate	-0.0846	-0.099	-0.0856	0.00264	0.000646	0.00162	-0.0137**	-0.0138**	-0.0152**	0.435	0.43	0.482

	(0.09)	(0.09)	(0.09)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.4)	(0.391)	(0.39)
MEPV	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.36	-0.388	-0.309
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.423)	(0.408)	(0.407)
High Peak (1990)	0.261	0.215	0.281	0.0202*	0.00344	0.0175*	0.00517	0.0112	0.00427	-0.258	-0.325	-0.302
	(0.25)	(0.26)	(0.24)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.427)	(0.41)	(0.4)
IMF	0.00393	-0.00789	0.00158	0.0032	0.0021	0.00268	-0.00132	-0.00122	-0.00183	-0.0218	-0.0325	-0.0336
	(0.05)	(0.05)	(0.04)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.0691)	(0.0688)	(0.0711)
Sanctions	-0.706**	-0.760**	-0.485*	-0.0121	-0.0132	-0.00674	-0.0684***	-0.0647***	-0.0624***	-0.238	-0.284	-0.0696
	(0.25)	(0.26)	(0.25)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.245)	(0.235)	(0.247)

TABLE 9. XTPCSE (Model 2)

	Education Exp	Education Exp	Education Exp	PrimaryEduc	PrimaryEduc	PrimaryEduc	Secondary Educ	Secondary Educ	Secondary Educ	Tertiary Educ	Tertiary Educ	Tertiary Educ
Lagged DV	-0.140***	-0.141***	-0.141***	0.340***	0.908***	0.904***	0.374***	0.377***	0.375***	-0.0484**	-0.0519**	-0.0493**
	(0.01)	(0.01)	(0.01)	(0.08)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)	(0.02)
HighSkilled_difference	0.01			-0.000425			0.00328			-0.00663		
	(0.01)			(0.00)			(0.00)			(0.01)		
HighSkilled_Lagged	0.00226			0.00153***			-0.00119			-0.00173		
	(0.00)			(0.00)			(0.00)			(0.01)		
LowSkilled_difference		0.0352			-0.00837			0.00324			-0.0108	
		(0.03)			(0.01)			(0.00)			(0.01)	
LowSkilled_Lagged		-0.00787***			0.002688**			-0.00818***			-0.00621	
		(0.00)			(0.00)			(0.00)			(0.00)	
Remittances_difference			-0.0000701			0.00822			0.0047			-0.01
			(0.01)			(0.02)			(0.01)			(0.01)
Remittances_Lagged			0.00254			0.0018**			-0.00522***			-0.00036

			(0.00)			(0.00)		(0.00)			(0.00)	
GDP growth	0.0019	0.00216	0.00165	-0.00622***			-0.00324	-0.003	-0.00318	-0.00382	-0.00378	-0.00341
	(0.01)	(0.01)	(0.01)	(0.00)			(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Trade	-0.12	-0.117	-0.118	0.0317			0.0398	0.0454	0.0467	-0.0367	-0.0364	-0.0399
	(0.06)	(0.07)	(0.07)	(0.02)			(0.03)	(0.03)	(0.03)	(0.05)	(0.05)	(0.05)
Population	1.159	0.8	1.51	-0.105			-0.755	-1.230*	-1.085*	-0.135	-0.526	-0.0672
	(1.23)	(1.35)	(1.48)	(0.29)			(0.55)	(0.53)	(0.43)	(0.88)	(0.88)	(0.83)
FDI	-0.00518	-0.0042	-0.00507	-0.000283	0.0718	0.00808	0.00585	0.00589	0.00617	0.0107	0.0104	0.0106
	(0.01)	(0.01)	(0.01)	(0.00)	(0.16)	(0.15)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)
MEPV	0.0117	0.0111	0.0122	0.00			0.0123	0.0116	0.0119	0.00201	0.00135	0.00193
	(0.02)	(0.02)	(0.02)	(0.00)			(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
High Peak (1990)	0.0223	0.00529	0.0333	0.0260***	0.00147	0.00137	-0.218***	-0.226***	-0.218***	0.0267	0.0164	0.0234
	(0.03)	(0.04)	(0.03)	(0.01)	(0.00)	(0.00)	(0.02)	(0.02)	(0.02)	(0.04)	(0.04)	(0.04)
IMF	-0.00743	-0.00935	-0.00793	0.00343*			-0.0131**	-0.0131**	-0.0130**	-0.0142	-0.0133	-0.0136
	(0.01)	(0.01)	(0.01)	(0.00)			(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)
Sanctions	-0.0761	-0.073	-0.0785	-0.0116	-0.00111	-0.00111	-0.0297*	-0.0289*	-0.0283*	0.0368	0.0378	0.0371
	(0.05)	(0.05)	(0.05)	(0.01)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)	(0.02)

	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Sanction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
IMF		0.00104***	-0.00404***	-0.00802*		-0.0000211		-0.00595*		-0.00021	0.0219***	0.109***
		(0.00)	(0.00)	(0.00)		(0.00)		(0.00)		(0.00)	(0.00)	(0.01)
FDI		0.00487***	-0.0018	-0.0169**		0.00107**	-0.0028	-0.00114				
		(0.00)	(0.00)	(0.01)		(0.00)	(0.00)	(0.01)				
_cons	-0.103	-0.0387***	-0.0256*	-0.110*	-1.995*	0.0628***	0.0721*	-0.390***	-0.307	0.0397***	0.222***	1.074***
	(0.38)	(0.00)	(0.01)	(0.05)	(0.93)	(0.01)	(0.04)	(0.09)	(0.30)	(0.00)	(0.01)	(0.08)
N	12	12	13	13	11	12	20	13	11	12	13	13

TABLE 9. XTPCSE (Model 4. 5-year-average)

	EducExp	Primary	Secondary	Tertiary	EducExp	Primary	Secondary	Tertiary	EducExp	Primary	Secondary	Tertiary
Lagged DV	-0.122	0.0839	0.346***	0.0846	-0.481	0.836***	0.172*	0.0251	0.0104	0.966***	-0.0245	1.054***
	(0.14)	(0.06)	(0.09)	(0.33)	(0.27)	(0.16)	(0.08)	(0.13)	(0.06)	(0.12)	(0.02)	(0.08)
HighSkilled_difference	0.0238	0.00540***	0.00855***	-0.00623								
	(0.04)	(0.00)	(0.00)	(0.01)								
HighSkilled_Lagged	-0.00602	0.00308***	0.000163	-0.00834								
	(0.03)	(0.00)	(0.00)	(0.00)								
LowSkilled_difference					0.032	0.00454***	0.00793*	-0.00573				
					(0.07)	(0.00)	(0.00)	(0.01)				
LowSkilled_Lagged					-0.230*	0.00767***	0.00930*	0.0516***				
					(0.11)	(0.00)	(0.00)	(0.01)				
Remittances_difference									0.0689***	0.00178***	0.00881***	0.0210***
									(0.01)	(0.00)	(0.00)	(0.00)

<i>Remittances_Lagged</i>									-0.0315*	0.00152***	0.0101***	0.0485***
									(0.02)	(0.00)	(0.00)	(0.00)
<i>dgdg</i>	0.0590*	-0.00288***	0.000877	0.000845	0.122*	0.000203		-0.00254	0.00199	-0.00597***	-0.0110***	-0.0438***
	(0.03)	(0.00)	(0.00)	(0.01)	(0.05)	(0.00)		(0.00)	(0.02)	(0.00)	(0.00)	(0.00)
<i>dmigra</i>	0.0128	0.0155***	0.0220***	0.0403	0.466	-0.0136***	-0.00961	0.140***	0.183*	0.0128***	-0.0414***	-0.328***
	(0.12)	(0.00)	(0.01)	(0.03)	(0.26)	(0.00)	(0.01)	(0.04)	(0.08)	(0.00)	(0.00)	(0.03)
<i>dtrade</i>	-0.956		0.0810*	-0.395*	-2.043*		0.0213*	-0.365**	-0.827*		0.274***	0.608***
	(0.65)		(0.03)	(0.19)	(0.83)		(0.01)	(0.13)	(0.33)		(0.01)	(0.08)
<i>ddem</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
<i>dpop</i>	2.173	0.183***	0.991***	-1.245	-6.001	0.307***	0.0951	-2.859**	-11.86*	-0.674***	-0.699***	-1.144***
	(4.73)	(0.05)	(0.27)	(1.83)	(5.13)	(0.09)	(0.22)	(0.93)	(5.27)	(0.10)	(0.02)	(0.21)
<i>dmeqv</i>	0.00	0.00	0.00	0.00								
	(0.00)	(0.00)	(0.00)	(0.00)								
<i>dhom</i>		0.00596***			0.0387	0.000288	-0.00317		0.119**	0.00173**		
		(0.00)			(0.03)	(0.00)	(0.00)		(0.04)	(0.00)		
<i>dmeqv</i>					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
					(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
<i>dsanction</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
<i>dimf</i>		0.00112***	-0.00373***	-0.00706		0.0000464		-0.00145		-0.000194	0.0216***	0.108***
		(0.00)	(0.00)	(0.00)		(0.00)		(0.00)		(0.00)	(0.00)	(0.01)
<i>dfdi</i>		0.00502***	-0.000953	-0.0123		0.00115**	-0.00109	0.00404		0.00532***	0.00425***	-0.00548***
		(0.00)	(0.00)	(0.01)		(0.00)	(0.00)	(0.01)		(0.00)	(0.00)	(0.00)
<i>_cons</i>	-0.0493	-0.0389***	0.00	0.00	0.00	0.00	0.00	0.00	-0.479	0.00	0.221***	1.067***
	(0.42)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.31)	(0.00)	(0.01)	(0.08)
<i>N</i>	12	12	13	13	11	12	20	13	11	12	13	13

