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M.Sc. Economics of Growth, Population and Development

Migration from Central America and the Caribbean: The Impact of Social Indicators on Labor Market Performance

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Abstract: In the last 50 years, immigration from Central America and the Caribbean to the United States of America has been increasing. Because these immigrants often find themselves in vulnerable positions, their successful integration into society should be of public interest. To tackle this problem, it is important to understand the determinants of successful integration. Since labor market integration has been considered to be a crucial factor for the integration in a new society, it is especially important to study the determinants of the migrants' labor market participation. This thesis addresses the question whether the social network of the migrants, both in the home and the destination country, has a significant impact on the labor market outcome. Using data from the Latin American Migration Project covering six countries from that region (Costa Rica, the Dominican Republic, El Salvador, Guatemala, Nicaragua and Puerto Rico), the influence of social indicators concerning the family and individual migratory history, the relations in the US, language ability and employment characteristics on three different labor market outcomes will be tested. The results suggest that social indicators are associated with the labor market integration of immigrants from Central America and the Caribbean but vary depending on the country of origin and the dimension of the integration process studied.

Keywords: migration, integration, Central America, Caribbean, labor market participation, social capital

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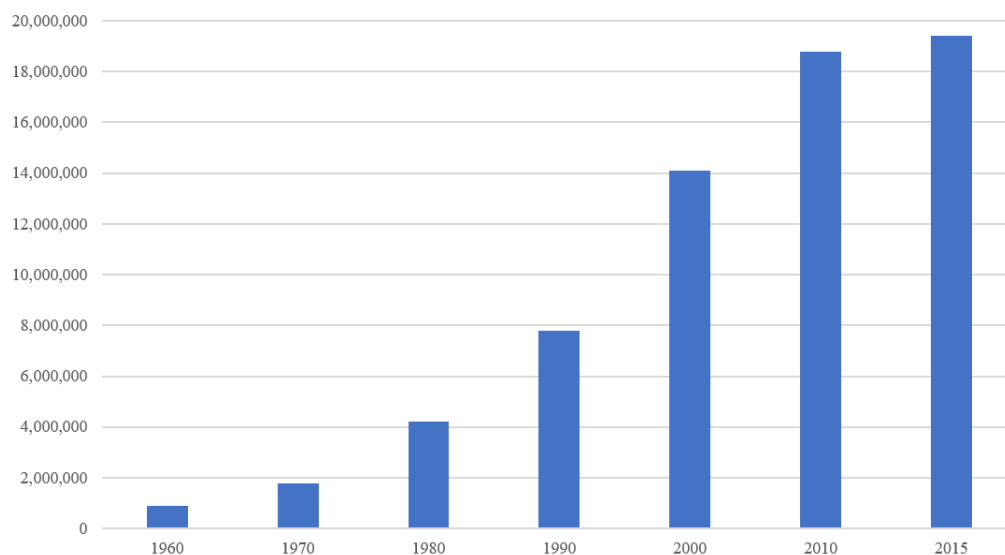
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1 Introduction

Since the 1960s, the immigrant population from Latin America in the United States of America has been increasing. Latinos in the US developed from a small population group to the largest minority in the US with a significant impact on social, economic and political issues (Massey, 2012). While in 1960 only 900,000 people were born in Latin America and migrated to the US, this number increased steadily to 7.8 million people in 1990 and to 19.4 million in 2015 (see Figure 1). Their share of the US population is equal to six percent. This share is expected to increase even further to a share of around 30 percent by 2050 (O’Neil, Hamilton and Papademetriou, 2005).

Figure 1: Number of the Foreign-Born Hispanic Population in the United States



Note: Own elaboration based on data from Pew Research Center (2017)

The history of Latin America and the Caribbean and the migration patterns are closely linked and the US remains the most important destination for migrants from that region despite shifts in the overall patterns (Cobo, Giorguli and Alba, 2010). Migration from Latin America and the Caribbean entails many different experiences and migrants come to the United States for different reasons and at different points in time (Hamilton and Chinchilla, 1991; Castles and Miller, 2009). Generally, migration has become more important in recent decades since geographical distances became less decisive for the migration process due to new transportation and communication means (Cobo et al., 2010). This change in communication and transportation can thus partly explain the steep increase in the share of foreign born in the population of the United States displayed in Figure 1.

Since the 1970s, there has been a large influx of people from Central America and the Caribbean (Lesser and Batalova, 2017). In 2016, 8.5 percent of the immigrant population, almost 4 million people in the US stemmed from just five countries in the region, namely El Salvador, the Dominican Republic, Guatemala, Nicaragua and Costa Rica (Migration Policy Institute, 2017). As can be seen in Figure 2, these countries are all closely located to the United States facilitating the movement compared with other countries from Latin America. Since these countries are rather small in terms of their population size, the high numbers of outmigration are remarkable (O’Neil et al., 2005).

Figure 2: Countries of Origin



This continuous and growing flow of migrants from the region altered the US labor market, the US economy and the country’s demographic composition (Cobo et al., 2010). While the cost of migration decreased in terms of transportation expenses, there still is a significant cost of migration due to the social distance between the two regions (Connor and Massey, 2010). This social cost becomes especially visible in the labor market, where e.g. language ability plays a key role in being integrated in the labor force (Chiswick and Miller, 2010). The integration in the labor market in turn has been considered to be a fundamental step towards an overall integration in the country (Akresh, 2008; Flores, 2010; Akresh, Massey and Frank, 2014). Moreover, the integration in the labor market for immigrants can reduce income differences, segmentation and inequality between the immigrants and the native born (Massey, 2012). This is especially important for migrants from

Central America and the Caribbean, since many of them find themselves in vulnerable positions in the US due to undocumented migration and a decrease in their real income (Massey, 2012). Thus, understanding the differences between migrant groups and the determinants of successful labor market integration can be important for the formulation of public policy.

The question remains what determines successful labor market integration in the United States for migrants from Central America and the Caribbean. Family characteristics have been considered to be important for the successful integration of immigrants in the receiving society (Massey, 1981). It has been hypothesized that having social ties with other migrants with the same experience, facilitates the integration process and impacts on the labor market position of migrants (Aguilera and Massey, 2003; Massey, Arango, Hugo, Kouaouci and Pellegrino, 1999). However, most studies focus primarily on other determinants and include social indicators only as additional explanatory factors (e.g. Aguilera, 2003; Massey, 1987; Massey, Durand and Pren, 2016).

Successful integration of migrants already received a lot of attention of researchers and many theories have been put forward focusing on different determinants of this complex process. However, there is a lack of a more comprehensive theory that is widely accepted among scholars (Massey et al., 1999). Mexico had received a lot of scholarly attention due to several reasons: the country remains the most important sending country to the US and a lot of data has been gathered to understand the phenomenon of migration from Mexico to the United States better (Cobo et al., 2010). However, making general statements based on the evidence from Mexico on migration patterns from Latin America and the Caribbean are most likely misleading (Massey and Sana, 2003). Additionally, there are not many cross-country comparisons, but rather case studies on the issue of labor market integration of migrants from Latin America. As a result, the findings are not comparable due to differing measures and indicators studied (Donato, Hiskey, Durand and Massey, 2010). Thus, cross-country comparisons would be able to contribute to a better understanding of the effect of migration on the host society and making predictions on the change in culture and society there.

This thesis aims at closing that gap in research by conducting a cross-country analysis of the social determinants of labor market integration of migrants from seven Central American and Caribbean countries. The thesis seeks to address the importance of social

networks, family history, coethnicity and language ability for employability, wage rate and occupational status in the United States. The results will highlight the different experiences from migrants from these countries in the receiving country. The data used stems from the Latin American Migration Project (LAMP) which was designed to get a better understanding of the migratory processes in Latin America.

1.1 Outline of the Thesis

This thesis outlines as follows: First, the background of migration from the six countries under study will be reviewed to show the differences in the region. Second, the theoretical framework and previous research will be presented. Section 4 presents the data and the variables used. Afterwards, the methods will be described and the final model of estimation will be defined. Results are presented and discussed in Section 6.

2 Background

2.1 Legal Context of Migration in the United States

When the US converted into one of the largest immigrant receiving countries in the world, there was only little attention to the legal status of immigrants. Initially, non-citizens were even allowed to vote in federal elections. Since then many things have changed and today, the legal status is one of the most important determinants of immigrant integration in the United States (National Academies of Sciences, Engineering, and Medicine, 2015).

There are two important dates that impacted on the possibilities of migrants from Central America and the Caribbean to enter the US legally. The first one is the Amendments to the Immigration and Nationality Act in 1965. With this act, the discriminatory quota system was replaced by an ethnic-blind preference system (Massey, 1981). Even though this policy change was not intended or expected to increase immigration to the US, there was an increase in immigration especially from Asia and Latin America (Castles and Miller, 2009). Due to the restriction of legal migration for people from Latin America, there was an increase in illegal immigration through the southern border of the United States (Massey et al., 2016).

The second important act was the Immigration Reform and Control Act in 1986, which entailed larger border enforcements and criminalization of hiring undocumented workers as a response to the altering in migratory patterns after 1965. At the same time, family reunification was legalized which simplified migration for many Latin Americans which already had a family member residing in the United States. Additionally, for 2.6 million undocumented migrants from Latin America their legal status changed to a permanent residence permit after the motion had been adopted (Durand and Massey, 2010). However, the criminalization of hiring undocumented workers made it harder for Latin American migrants to integrate into the labor force. Since the mid-1990s, immigration policy in the United States has become even more restrictive and punitive for undocumented immigrants (National Academies of Sciences, Engineering, and Medicine, 2015).

Today, migrants can be categorized into four categories: permanent, temporary, discretionary and undocumented (National Academies of Sciences, Engineering, and Medicine, 2015). Migrants in the permanent category typically hold a green card which enables

them to participate freely in the labor force. Temporary migrants are only allowed to be in the United States for a pre-defined period of time and if they are allowed to work, the work permit is limited to specific industries or sectors. Migrants that hold a discretionary status often came as undocumented children to the United States and are able to receive a permit to reside and work in the US under certain circumstances. Undocumented migrants are those who enter the US unauthorized. Migrants often change between their status and thus, integration into society regularly starts while being on a temporary visa which does not necessarily transform into a permanent residence permit or while being undocumented with possibly no chance of legalization (National Academies of Sciences, Engineering, and Medicine, 2015). Which status a migrant receives depends on the combination of the federal, state and local legal framework and the coordination between the three levels (National Academies of Sciences, Engineering, and Medicine, 2015).

For Latin American migrants the legal framework is especially relevant since each wave of migrants entered under different regimes and is thus treated differently in their legal status (Durand and Massey, 2010).

2.2 Migration History and Circumstances

The history of Latin America and the Caribbean is closely linked with its migration patterns and its ties to the rest of the world (Cobo et al., 2010). The region developed from being a destination for migrants from different regions in the world in the late 19th and early 20th century, to one of the major sending regions in the world (Durand and Massey, 2010). These migration patterns are a relatively new phenomenon; however, it has already become clear that the United States have become the dominant destination for migrants from the region (Cobo et al., 2010).

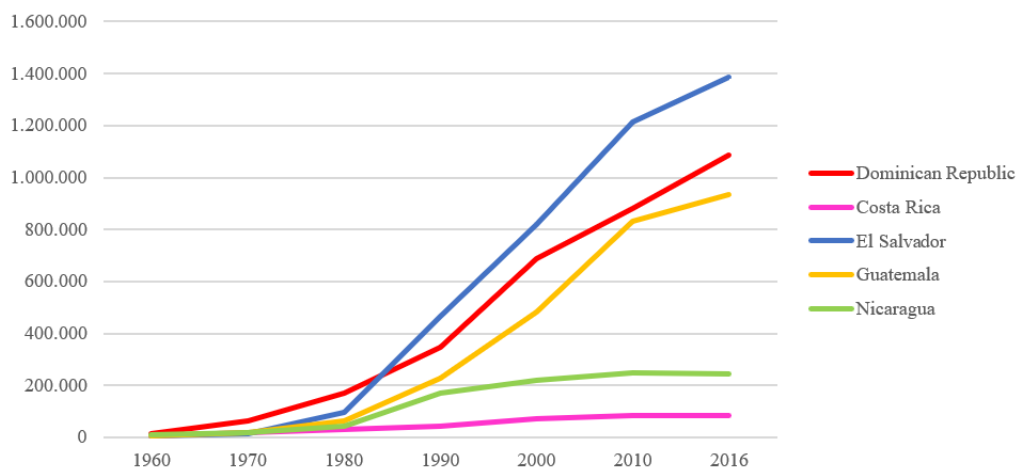
The reasons for migration and the timing of migration vary largely between the countries (Bergad and Klein, 2010). The historical development of migratory patterns created a heterogeneous population group, that reflects the history of the country as well as the US involvement in the region and the different legal regimes under which the migrants entered the United States (Durand and Massey, 2010). Between 1950 and 1990, the United States supported many right-wing governments and dictatorships in the region, creating a flow of immigrants and refugees either to the United States or the neighboring countries in the region (Durand and Massey, 2010). Today, many migrants enter the US as workers

and thus, rather stem from lower society classes than the refugees during earlier times (Durand and Massey, 2010; Bergad and Klein, 2010).

Figure 3 shows the size of the immigrant population in the United States between 1960 and 2016 for the five countries under study.¹ It becomes clear that immigration started to grow rapidly in the 1980s and continues to grow for at least three of the countries considered here. To understand why migration increased in each country, it is crucial to present a brief overview on the history of migration for each country separately to understand the uniqueness of each country’s migratory patterns.

Costa Rica has the lowest migration rates into the US compared to the other countries under study (see Figure 3). A possible explanation is that Costa Rica is the richest country in the region and has itself been a prominent destination for migrants from the region (Hamilton and Chinchilla, 1991; Gindling, 2009).

Figure 3: Immigrant Population by Country of Birth



Note: Own elaboration based on data from Migration Policy Institute (2017)

In the Dominican Republic, migration to the United States started comparably early during the 1960s; however, at low levels. After the murder of the dictator Rafael Trujillo in 1961, political unrests destabilized the country and caused the United States to intervene in 1965. To calm the situation, the US embassy gave free visas to proved applicants and many migrants were able to enter the United States as legal migrants (Massey et al., 2016).

El Salvador, Guatemala and Nicaragua share a large part of their history due to the civil war in Nicaragua during the 1970s, which impacted on the other two countries as well

¹Since Puerto Rico forms part of the United States, migrants from there are not included in the immigration statistics.

(Durand and Massey, 2010). After the civil war in Nicaragua, a new left-wing government came to power and the old US-backed government was replaced, which further destabilized the region. At the same time, Guatemala and El Salvador also struggled with rebellions of their left-wing parties (Durand and Massey, 2010). Consequently, president Reagan financed and trained military forces in Honduras that fought against the Nicaraguan government and subsidized militias in El Salvador and Guatemala (Massey et al., 2016). After many years of violence, regional peace was established in 1987, but by then already large streams of migrants were created both into calmer neighboring countries and the United States (Massey et al., 2016). Even though the region was equally affected by violence and US involvement, their treatment under US migration law was quite different. While Nicaraguans received permanent residence permits through the Nicaraguan Adjustment and Central American Relief Act (NACARA), Guatemalans and El Salvadorians were not considered refugees and were only granted a temporary protected status (Durand and Massey, 2010). Independently from the unfavorable treatment after the political struggles within the country, El Salvador sends most migrants to the US and their number is growing steadily (see Figure 3) (Hamilton and Chinchilla, 1991). 14.5 percent of the population resides outside the country, the largest part in the United States. As a result, the country is also heavily dependent on their migration through remittances sent by family members abroad (Durand and Massey, 2010).

Puerto Rico represents a special case. They are citizens of the United States and have a US passport. 50.5 percent of all citizens live in the mainland of the United States and Puerto Rico itself is the poorest state of the American Union (Durand and Massey, 2010). Even though Puerto Rico forms part of the United States and Puerto Ricans are not counted as migrants in the official statistics, it is still included in the analysis of international migration, since it can be considered a theoretical case of migration in absence of any legal restriction of movement (Massey and Sana, 2003).

2.3 Regional Dispersion of Migrants

At the onset of Central American migration, migrants located primarily in the Western and Southwestern states of the US, with only small fractions of migrants going to different regions (Bergad and Klein, 2010). Historically, immigrants settled in only a few gateway cities or states, but today a growing fraction of immigrants also locate in other cities

and states within the United States (National Academies of Sciences, Engineering, and Medicine, 2015). Between 1980 and 2015, a stable fraction of around 50 percent of all Hispanic migrants settled in Texas or California (see Table 1).² At the same time, Florida experienced an increase in their share of Hispanics of around 2 percent, making it the third largest receiving area of Hispanic immigrants. The share of immigrants settling in New York halved. In 2015, the four states with the largest share of immigrants accounted for around 60 percent of the Hispanic immigration population in the United States.

Table 1: Destination States of Hispanic Immigrants

State	1980	1990	2000	2010	2015
California	31.0%	34.6%	31.0%	27.8%	26.9%
Texas	13.8%	12.7%	17.6%	21.6%	22.6%
Florida	20.4%	19.6%	18.9%	18.8%	18.9%
New York	11.4%	9.8%	8.1%	6.8%	6.6%
Illinois	4.4%	4.0%	4.3%	4.0%	3.8%
Arizona	3.0%	3.1%	3.2%	3.1%	3.1%
New Jersey	3.4%	3.3%	3.2%	3.1%	3.1%
Colorado	2.3%	1.9%	2.1%	2.1%	2.1%
New Mexico	3.3%	2.6%	2.2%	1.9%	1.8%
Georgia				1.7%	1.7%
Michigan	1.1%				
Massachusetts		1.3%			
Washington			1.3%		
Other states	13.8%	12.7%	17.6%	21.6%	22.6%

Source: Pew Research Center (2017)

The numbers presented above do not include information about undocumented migrants which might have different preferences for the settlement location than documented migrants. However, the patterns of settlement are in close resemblance to the documented migrants, indicating that being close to other Hispanics influences documented and undocumented immigrants alike (National Academies of Sciences, Engineering, and Medicine, 2015). Additionally, the numbers are likely to be driven by the large share of Mexican migrants to the United States. Generally, Central American migrants are less dispersed over the country and rather locate in fewer states. Immigrants from the Caribbean are more concentrated in even fewer states than Central Americans, with 40 percent residing in Florida and 28 percent in New York. At the same time as immigrants from Latin America

²The information on being of Hispanic origin is based on self-described ancestry, lineage, heritage, nationality group or country of birth. Hispanic origin covers every country in Latin America and the Caribbean.

and the Caribbean spread over the country, their local concentration increased and minority enclaves have been formed within the American mainstream (National Academies of Sciences, Engineering, and Medicine, 2015).

These changes in the geographical location of immigrants in the United States have implications for the receiving areas and the integration process of the immigrants. Today, many migrants locate not only in metropolitan areas, but also in suburbs and rural areas where the native population has been mainly US-born Americans (National Academies of Sciences, Engineering, and Medicine, 2015). That implies that many institutions are not used to deal with e.g. students that do not speak English as their first language, and integration gets more difficult. There is a lack of resources to enable immigrants to successfully integrate into US society. However, a larger geographical dispersion of migrants points into the direction of a better integration of these migrants. The immigrants have accumulated enough socioeconomic and cultural capital over time to leave the traditional gateway cities and states to take advantage of opportunities in other states or cities (National Academies of Sciences, Engineering, and Medicine, 2015).

The relationship between regional dispersion and integration into the American society will be tested later in the empirical analysis of the specific data used.

3 Theory and Previous Research

3.1 Theoretical Approach

There are many different theories concerning migration, but until now, there is no overall encompassing theory of immigration and integration (Portes, 1997; Massey et al., 1999). Following Portes (1997), theoretical approaches focus on four different categories of migration: origins of migration, directionality and continuity of migration flows, utilization of immigrant labor and sociocultural adaptation of immigrants. The focus here will lie exclusively on the sociocultural adaptation of migrants in the host society. Thus, two different theoretical approaches will be presented in order to establish a comprehensive theoretical framework for the economic integration of migrants in the US and the importance of social determinants of this integration. In the following, the Assimilation Theory and the Social Network Theory will be outlined with a specific focus on the social determinants of the labor market integration of migrants.

3.1.1 Immigrant Assimilation Theory

To understand the integration of immigrants into the mainstream of the US culture over generations, the Immigrant Assimilation Theory has been considered to be the best concept for the description of the patterns of assimilation and intergroup relations (Nee and Alba, 2012). In order to get a better understanding of what assimilation entails and means, it has to be defined carefully. In his book “Assimilation into American Life” (1964) Gordon provides a systematic analysis of the assimilation into the US society. According to this framework, assimilation takes place in seven stages: cultural, structural, marital, identity, prejudice, discrimination, and civic. The most important distinction to other concepts of assimilation is the structural assimilation, meaning that members of the minority group are able to enter relationships with the majority group. It is hypothesized that once this structural assimilation took place, the other six dimensions will follow almost naturally. This means that structural assimilation is also a sign of the maturity of the assimilation process (Nee and Alba, 2012).

This theory is appealing because it includes many different aspects of the social life migrants are embedded in; however, there are some limitations to it. First, this theoretical framework has been considered rather static and too homogeneous (Nee and Alba, 2012).

The theory assumes that the minority groups assimilate to the US American culture and move towards them, while the US American culture itself stays the same. Yet, the culture of the majority group itself is rather heterogeneous and varies largely by region and social class (Nee and Alba, 2012). To take into account these differences, a theory about assimilation should also take into account the interaction between the different levels of observation. Where a migrant settles, the community he or she lives in or the group he or she feels part of, might play an important role in the outcome in the host society. Second, it is not clear whether the theory applies to individuals or to groups. The theory measures assimilation on the individual level but interprets them for the whole group. As a result, it is possible that the individual is assimilated into the US culture, but still experiences discrimination and prejudice (Nee and Alba, 2012). Third, the theory only considers the processes of assimilation for two distinct groups. However, the US is characterized by many different minority groups and even groups, that are considered to be one like Latin Americans, are largely different from each other and cannot be taken as one group that easily. Fourth, the theory is formulated largely in separation from other social processes and does not take into account other processes like ethnic boundaries that impact on the assimilation of migrants (Nee and Alba, 2012).

Moreover, Gordon's framework does not take into account economic assimilation or occupational mobility of migrants. However, this is considered an important part of assimilation (Nee and Alba, 2012; Akresh, 2008). Waters and Jiménez (2005) recognize socioeconomic assimilation as one of their four primary benchmarks of assimilation. To understand socioeconomic assimilation, it is important to define it correctly. It can be defined either as equality of attainment of position or as equality of treatment (Nee and Alba, 2012). What can be observed in both dimensions is a segmented assimilation of Latin American migrants into US society. Similarly, Zhou and Portes (2012) argue that the experience of migrants today is largely shaped by the sector of the society they assimilate to. As a result, there are many different patterns of adaptation that cannot be put into one scheme that easily. Zhou and Portes (2012) identify three different roads of assimilation: growing acculturation and parallel integration into the white middle-class, permanent poverty and assimilation to the under-class and rapid economic advancement with deliberate preservation of the immigrant community's values and tight solidarity. What determines this assimilation into the different society groups is not answered within

the framework and remains an open question.

The assimilation over different generations of migrants from Central America and the Caribbean cannot be studied here; however, the segmented assimilation theory shows that there is more than one way to integrate into a new host society. It is not yet clear on what determinants it depends towards which part of the society migrants assimilate to.

3.1.2 Social Network Theory

The second theory important for this thesis is the Social Network Theory. In contrast to the theory outlined before, the focus lies on interpersonal relationships between the migrants that impact on the integration of these migrants either in the mainstream of the American society or a subsociety comprised of other migrants in the US.

Loury (1977) defined social capital as a set of resources in communities and families that are used to support the social development of their members. Bourdieu and Wacquant (1992) describe it more abstract as the sum of resources that increases with having a network of institutionalized relationships of mutual acquaintance and recognition. The most important characteristic of social capital is its convertibility (Aguilera and Massey, 2003). This implies that the social capital an individual possesses can be converted in other forms of capital or valuable assets, like income, prestige, information or a specific behavior (Aguilera and Massey, 2003; Aguilera, 2002). Access to social capital is granted through the membership of a network, family or community, but not all networks possess the same resources and thus, the gain from the membership differs depending on the network (Aguilera, 2002).

The first ones to apply this concept to migration were Massey, Alarcón, Durand and González (1990) in a study of Mexican Migrants (cited in Aguilera and Massey, 2003). While general social capital is generated through any relationship between different people, migration-specific social capital can only be generated through migration (Phillips and Massey, 1999). Initially, social ties to friends and family only have few benefits for potential migrants, but as soon as one of the individuals within this network migrates, these relationships are transformed into a resource that these potential migrants can use on their migration (Massey et al., 1999). Through this process, ties between the potential migrants and the destination country are constructed and migrants are linked to non-migrants through this connection (Massey et al., 1999). This connection than can serve

as a source of information, knowledge, assistance and resources that ultimately facilitate international movement and integration in the new society (Aguilera and Massey, 2003). Generally, migratory specific social capital can be defined as any relationship that simplifies the migratory process and improves the economic integration in the destination country (Espinosa and Massey, 1997).

Network connections are a special form of social capital and are consistent with the theory (Massey and Aysa-Lastra, 2011; Massey et al., 1999). Through migration, transnational communities are formed by which migrants, former migrants and non-migrants are connected through their relationships and live “dual lives” being connected to both the sending and the receiving country (Massey et al., 1994; Portes, 1997; Massey, Arango, Hugo, Kouaouci, Pellegrino and Taylor, 1994). Migrant networks have been found to possess all forms of social capital identified in the literature (Portes and Sensenbrenner, 1993). Values present in the network are directly taken on by all members, favors are extended within the network without prompt repayment, but rather anticipating the same help in the future, solidarity among the members and enforceable trust, meaning that the refusal of help within the network will have negative consequences for the individual.

Within a network there are different types of ties that link the members to each other. Strong ties are defined by relationships between family members and friends, while weak ties entail relationships within the workplace, organizations or other formal settings (Granovetter, 1973). Strong ties impact on the migratory experience directly through relationships with particular individuals that have migratory experience (Massey and Aysa-Lastra, 2011). Weak ties provide the migrant with resources that diffused through the sending community and which can be accessed by all members of this particular community (Massey and Aysa-Lastra, 2011). Within an individual’s network there are both weak and strong social ties that taken together represent the network he or she can draw upon (Massey and Aysa-Lastra, 2011). When the network is used, social capital is mobilized and the individual can benefit from the information, assistance and support that impact on the cost and risk of migration (Massey and Aysa-Lastra, 2011).

Like for any other form of capital, the economic value of social capital can be quantified (Aguilera, 2002). It has been established here that social ties and relationships provide the migrants with information, knowledge, support and other types of assistance. The question remains how this form of social capital is transformed into labor market success

in the receiving country, i.e. what economic value does the access to the benefits of the network provide. There are many different scenarios, not exclusive to migrants, where it seems plausible that an asymmetry in information can lead to a better labor market position. Generally, social networks provide the job applicant with information about employment opportunities which might be inaccessible for those who are outside this network (Aguilera, 2003). On the other side, the employer may consider the information provided by social network as more reliable since the potential employee is recommended by a member of the network (Aguilera, 2003). Labor market relations have been considered to be more stable when they were accomplished through networks since they are the result of trust, obligation and expectation which are all the result of the social ties connecting the individuals (Aguilera, 2003). For migrants specifically, this process can work through many different ways that all impact on the final labor market outcome. The members of the network could identify job opportunities for the migrant that he or she would not be able to identify themselves due to their limited knowledge of the foreign labor market. Moreover, the network could provide information about application processes, presentation to potential employers or wage levels (Aguilera and Massey, 2003). As a result, the information necessary to obtain employment or to earn an adequate wage in the host society might be obtained faster and easier and thus, labor market integration is facilitated by the social network surrounding the migrant (Aguilera, 2003). Strong and weak social ties might impact differently on the labor market outcome. It has been hypothesized that friendship ties are more effective in determining the labor market position than familial ties because they entail a broader net of relationships which increases information (Greenwell, Valdez and DaVanzo, 1997; Aguilera and Massey, 2003). However, both relationships are considered to be beneficial for the labor market integration. Moreover, the final outcome might also be determined by the combination by both strong and weak ties and the overlap between the two (Greenwell et al., 1997).

3.2 Previous Research

Many theories about the assimilation and the integration of migrants is based on data from the late 19th to early 20th century. Moreover, many studies have been studying one country only and in the Latin American context, especially Mexico received a lot of scholarly attention. Cross-national studies concerning the US like this thesis are relatively scarce. However, these cross-national studies would be helpful to examine the degree to which the theoretical considerations can be applied to different contexts, to generate typologies of the interaction effects of different variables and to produce concepts and suggestions that can be applied to a broader context (Portes, 1997). The studies presented here focus mainly on the social relations that immigrants maintain in the United States and the impact on different labor market outcomes. Additionally, there is a focus on Latin American countries and Mexico, since it is assumed that their experience is comparable to the migratory experience of the countries under study here. An overview of the previous research reviewed here and its main findings are presented in Table 10 in Appendix A.

Almost all studies found a positive impact of social networks, social capital and family relations within the United States on the labor market outcomes of the migrants. Brown and Sanders (1981) looked at settings from developing countries in general and found that the access to social networks generally leads to a better integration in the US labor market (cited in Flores, 2010). Aguilera (2003) and Massey (1987) use data from the Mexican Migration Project to examine the labor market integration of Mexican migrants in the United States. They take different approaches but both consider the impact of social relationships that the migrants maintain in the US. Massey (1987) finds that having social ties with a family member in the US, measured as having migrants in the family, increases wages of these migrants. Aguilera (2003) focuses on job tenure and finds that those migrants who use their social networks find longer lasting jobs. He concludes that obtaining employment is a social process and thus, relationships to other individuals helps to develop a stable labor market position. Greenwell et al. (1997) looks more specifically into the employability and the wages of immigrant workers. They identified migrants from El Salvador and the Philippines living in Los Angeles and looked at their working conditions and other demographic control variables. Their results suggest that strong ties to family members affect the employment status of these migrants and their wages. However, these results also depend on gender and the community characteristics.

Since employability of migrants can only be considered a first step towards economic integration, other labor market indicators should be considered to assess the degree of integration. Other studies focus on wages in the US as the main variable to measure labor market success. Using data from the Mexican Migration Project, Aguilera and Massey (2003), Donato, Durand and Massey (1992) and Phillips and Massey (1999) all look at the hourly wage of Mexican migrants in the United States. Aguilera and Massey (2003) specifically emphasize social networks in three dimensions: near family ties, far family ties and friendship ties. They find that social capital impacts on the labor market outcome directly and indirectly. Directly through the migratory experience of family members and friends which improves the job search technique and indirectly through the type of job that is obtained. Donato et al. (1992) and Phillips and Massey (1999) lay their focus on the documentation of migrants in the US, but also take into account family and other relationships within the US. They both find that social capital impacts on wages in the US. Phillips and Massey (1999) additionally state that social capital has become more important since the IRCA Act in 1986 since those who had a migrant parent, those who are a member of a social club in the US or those who know Latinos in the US earn higher wages and determine how this individual found his or her job. More specifically, Portes and Bach (1980) considered only migrants from Cuba and Mexico using data from surveys conducted with migrants in the year they arrived in the US and three years later. Even though this data might not be representative, their results also suggest a strong impact of social capital on wages.

In contrast to these studies, a cross-national study by Massey et al. (2016) uses data from the Latin American Migration Project and the Mexican Migration Project on Mexico, Costa Rica, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Nicaragua, Peru and Puerto Rico. Their main focus lies on the documentation of the migrants in the US, however social indicators are also included. The results for having a parent or a sibling with migratory experience and the rate of outmigration in the home community are not significantly related to the labor market outcome for non-Mexicans and getting a job through their social network even impacts negatively on the wage rate. These results might be limited through the pooling together of nine countries in Latin America and might be different for each country individually. A second cross-national study by Flores (2010) looks at the occupational attainment of migrants. Using data from both

the Mexican Migration Project and the Latin American Migration Project, she studies migrants from Guatemala, Mexico, Costa Rica and Nicaragua. The results show that migrants from these four countries have different abilities to translate their educational level from abroad into occupational outcomes which is attributed to the differential legal treatment in the United States. In contrast to the first cross-national study presented here, the countries are treated more differential by including a dummy variable for each country. Both papers give evidence that cross-country differences are important for assessing how Latin Americans fare in the US. The Mexican migratory experience should not be taken as representative for the whole region and when cross-national studies are conducted different countries should not be taken together as a whole since their migratory experience differs largely.

Almost every paper that has been written on the labor market integration of Latin American migrants includes a section relating to the language ability. The absence of knowledge of English has been considered to be an obstacle for the integration and the assimilation with the Natives (Akresh et al., 2014). Studies for immigrants have generally shown that proficiency in English is associated with a substantial earnings premium (Chiswick and Miller, 2010; Akresh et al., 2014). Chiswick and Miller (2010) find that not only the English proficiency reported by the migrant is important, but also the language level required in the labor market. Akresh et al. (2014) state that English ability is important for the determination of the use of English in social settings, but that it is not enough to explain the complete process of integration and assimilation.

Another factor of integration and assimilation of immigrants in the US are the patterns of settlement. Walker and Hannan (1989) look at cross-sectional data from eleven immigrant groups in the US and how the migrant stock already present in the US predicts the settlement of new migrants. Their results show that migrants are more likely to settle where there is already a large number of migrants residing and that this effect was especially strong for migrants from Mexico, Jamaica and the Dominican Republic. Massey (1986) finds similar results for Mexican migrants only using data from the Mexican Migration Project. Even though migrants are not well connected to the US society, the results show that their social ties to the US society increase with time in the US and that more migrants have social ties outside the Hispanic community with more US experience. Dunlevy (1991) predicts the state of settlement of Latin American and Caribbean

migrants in the US based on information about the migrant stock and find that this variable is the most important one to predict the location of settlement for the migrants.

The studies presented here mostly show that social ties impact positively on the labor market performance and the settlement of the migrants in the US. However, only two studies used a cross-national data set and these results partly contradict the theoretical expectations.

3.3 Hypotheses

Based on the theoretical remarks and previous findings in research, the following hypotheses are formulated:

1. *Having family ties to the United States is associated with higher labor market integration in terms of employment, wage and occupational status.*

When members of the family, i.e. parents, siblings, children or members of the extended family, have accumulated migratory experience in the United States, it is assumed that they can provide the future migrant with useful information, support and assistance about the labor market in the receiving country. As stated by the theory, this social tie results in an information asymmetry that the new migrant can transform into a superior labor market position.

2. *Being in contact with other Latinos or minority groups in the United States is positively related to the wage rate and the occupational status when being employed in the US.*

Since not only strong social ties have been considered to be beneficial for the new migrant, weak social ties will also play an important role in the assimilation and integration of the migrant. Being in contact with individuals from the same race that share their first language, is assumed to be positively related to the labor market outcome since these relations also provide a source of information and assistance additionally to the family relationships.

3. *Being employed by a member of a coethnicity or another minority has a positive impact on labor market performance in terms of wage rate and occupational status.*

Social networks of immigrants provide a source of enforceable trust and thus, employment relations between two individuals from the same network or community are assumed to be more stable and easier to commence. Employing a member of the same network leads to a larger trust in the credentials being provided and there is a higher security for the employer that the employee is trustworthy.

4. *Being fluent in English or exposed to English on a daily basis is positively related the employment probability, the hourly wage and the occupational status.*

Even though migrants from Central America and the Caribbean share their native language with a large portion of the population, it is assumed that they have to leave their ethnic enclave at some point during their stay in the US. When they leave their enclave, English is a necessary pre-condition to be able to get in contact with the native population and crucial for a more complete assimilation in the labor market as well as the society as a whole.

5. *The time spent in the United States is positively associated with employment probability, wage rate and occupational status in the United States.*

It is assumed that the integration and assimilation of an individual is dependent on the time he or she spends in the receiving country. The longer a migrant stays in the US, the more experience is accumulated and a larger degree of assimilation will be achieved. However, by accumulating more experience alone, the importance of social networks might decrease since more information can be drawn from the own knowledge.

6. *Depending on the country of origin, labor market performance, measured in employability, wage rate and occupational status will differ between individuals.*

As the cross-national studies presented before showed, it is important to distinguish between the countries under study. Section 2 showed clearly that the countries under study here faced largely different circumstances when arriving to the United States and that each country has their own migratory experience. Thus, the labor market outcome will vary between the countries.

4 Data

4.1 Source

The data used for this analysis stems from the Latin American Migration Project (LAMP), a research project based at Princeton University and Guadalajara University. It is an extension to the Mexican Migration Project which has been used in many studies on Mexican Migration to the US (Latin American Migration Project, 2018). The project intends to increase the understanding of migratory processes from Latin America and the Caribbean to the United States of America (Donato et al., 2010). The LAMP is an Ethnosurvey, meaning that it combines techniques of ethnographic fieldwork and survey sampling to gather data on migratory processes. This approach yields more valid results than an ethnography or a sample survey conducted individually (Latin American Migration Project, 2018). Information is collected on family composition, fertility, labor history of the household head and its spouse, internal migration, international migration to the US and aspects of the time the household head spent in the US (e.g. work experience, income, social networks) (Latin American Migration Project, 2018).

In total, the project includes 11 countries in Latin America, but only 6 will be included in this analysis. The focus here lies on Central America and the Caribbean due to the geographical proximity to the US. It is assumed that migrants from countries from South America have different characteristics and use different networks within the US and are thus, not comparable to the countries from Central America and the Caribbean. Haiti represents an exception and is excluded from the analysis even though the geographical location would make it comparable to the other countries included. However, the official language of Haiti is French and thus, the use of ethnic and social networks is most likely different than for individuals from Spanish-speaking countries.

In each country, the same surveys have to be conducted in order to establish comparability among them. However, the interview questionnaire was adapted to fit the reality in each country under study and was not entirely the same. To still be able to get comparable results from the survey, there is a collaboration between local researchers at all stages of the data collection. Moreover, the interviews follow a semi-structured schedule that allows the interviewer to get the information needed from the individuals, but at the same time to be able to adapt the questions to the specific circumstances. Additionally,

local informants are interviewed to ensure the validity of the information provided by the surveyed individuals and a separate ethnographic study is made to get another independent source of information (Latin American Migration Project, 2018). Still, it has to be noted that there is the possibility that the results from the survey are not completely comparable due to the different realities the people face in each country. Here, this potential bias will be considered unimportant for the results and cross-country comparisons will be conducted.

Within a country, different communities have been selected to provide data from a range of communities of different sizes, regions, ethnic compositions and economic bases (Latin American Migration Project, 2018). Because the LAMP is not designed to explicitly survey only communities with high rates of migration to the US, a high number of communities have been sampled to achieve a high degree of representativeness for the country. To generate a sample that includes a sufficient number of migrants within a community, the samples have to be large to be able to make generalizations about migratory patterns (Latin American Migration Project, 2018). Which communities are chosen to be a part of the LAMP is based on anthropological methods and a personal inspection of the area by the main investigators. Initially, information on the community level is gathered and later compared to census data and official statistics to validate the information (Latin American Migration Project, 2018). Then, communities are categorized based on their level of urbanization. Depending on this level of urbanization, either a complete census is conducted (towns and rural areas) or a limited census of a neighborhood (cities and metropolitan areas) (Latin American Migration Project, 2018). Depending on the country, a different number of communities have been surveyed. How many and at which time the surveys have been conducted can be seen in Table 2.

Table 2: Overview over the full sample

Country	Sampling Period	Communities in Sample	Total Number of Households	Thereof: Households with Migratory Experience
Costa Rica	2000-2002	7	1,428	198
Dominican Republic	1999-2000	7	981	168
El Salvador	2007	4	328	67
Guatemala	2004	3	513	77
Haiti	2000-2001	3	303	41
Nicaragua	2000-2002	9	1,663	162
Puerto Rico	1998	5	646	272

There is no information available on the response rate of the individuals and whether there was an incentive for them to participate in the survey. Thus, there is also no information if there is a possible selection bias within the data. However, it seems like the project is designed to deliver representative results and there is an effort to get high quality data. In addition, it has to be noted that this data set only gives a limited basis for the analysis of the complex processes evolving around migratory processes. In some countries, the small sample size restricts the accuracy of statistical analysis and the modeling of the processes involved (Donato et al., 2010).

The total data set for each country contains five different subsets, each encompassing different information. Here, only two will be used to perform the empirical analysis. One is the MIG-data file containing information on all household heads with labor or residential experience in the United States and measuring economic and social activity in the destination country. The second one is the HOUSE-data file giving information on the household composition and economic and migratory activity of relatives of the household. For the descriptive results, all surveyed individuals with migratory experience will be taken into account to get a more general overview on the migratory patterns independently from the status within the household. Summary statistics will be presented in the following section.

4.2 Dependent Variables

4.2.1 Employment

Information on employment in the United States is not directly given in the data set but has been derived from the information on the reported wage during the last migration to the US. Employment is defined as a dummy variable that takes on the value 1 if a wage is reported in the United States and the value of 0 if there is no wage reported. Employment is considered to be important in addition to the wage earned during the last migration since it takes into account those who unsuccessfully search for an occupation while being in the United States. This yields additional insight in the integration of migrants. 303 individuals in the data set migrated to the United States and have no wage recorded in the data set. This explains the smaller observational numbers for the variables wage and occupational status in the summary statistics and the regression analysis.

4.2.2 Wage

The data set contains different measurements of wage, but here the focus will lie on the hourly wage earned on the last migration to the United States. It is chosen because it is well-suited for the comparison between the countries under study. In order to be able to interpret the results as changes in wage caused by the independent variables, it will be used in the analysis as the natural logarithm of the hourly wage.

There are four outliers in the sample that report a very high hourly wage between 1,200 US Dollars and 4,000 US Dollars. This might be a measurement error in the data set and thus, these individuals will be excluded from the analysis.

It has to be noted that the variable is not adjusted for inflation or changes in the value of the American Dollar over the time under study. Since it is not clear when the wage reported in the data set was earned, i.e. at the beginning or the end of the trip, or how long the wage was paid, correctly adjusting it to inflation would be difficult. This might lead to a bias in the results. However, it is assumed that this bias is significantly small to not impact largely on the results.

4.2.3 Occupational Status

Additionally to whether an individual is employed and what wage is earned, the occupational status in the United States might yield further insight in the way how migrants select into the US labor market. The categorization of occupations is based on Flores (2010). There, occupations are sorted in three categories: highly skilled, skilled and unskilled occupations. Highly skilled occupations are professionals, technicians, educators, artists, athletes, administrators, directors of public and private organizations, manufacturing and repair supervisors, service and administrative supervisors, and merchants and retail business owners. Skilled occupations entail transportation workers, administrative and support workers, skilled repair workers, sales agents and representatives, and other skilled service workers. The unskilled category includes all occupations that do not require much education like farmworkers, factory workers, unskilled repair workers, clerks, dispatchers, delivery workers, common laborers, and service workers. Which occupations are included in each category, can be seen in Table 14 in Appendix A. In the analysis, the outcome of interest will be the probability to get a skilled or highly skilled occupation and unskilled occupations will serve as the reference category.

4.3 Independent Variables

Family Migratory History

To analyze the importance of the migratory history of the family, four different indicators capturing different generations will be used. It is assumed that having a migrant to the US in the family facilitates the integration in the labor market because the migrant has access to information about the migratory and integration process.

To determine the effect of the parental generation of the labor market integration in the US, two dummy variables were created, one for the mother and one for the father. If either parent of the migrant migrated to the United States at any point in their lives, the variable takes on the value 1 and 0 otherwise. A similar variable is created for the presence of siblings with migratory experience. The dummy variable takes on the value 1 if there is a sibling with migratory experience in the family and 0 if the siblings do not have migratory experience or there are no siblings in the family. This definition might lead to a bias since it might not be the same not to have a sibling or having a sibling without migratory experience. However, this definition is used to not reduce the number of observations to a significantly lower level. The third variable to capture the family effect is also a dummy variable that takes on the value of 1 if the individual has a child with migratory experience to the US and 0 if the individual has a child without migratory experience or is childless. Again, this might induce a bias to the analysis due to the incomparability of childless individuals and individuals that do have children, but without migratory experience. Nevertheless, this is necessary to have enough observations in the analysis.

To further capture the effect of the more distant family and friends, the last variable considers the extended family of an individual. In this context, extended family means uncles, cousins, nephews and friends. The dummy variable created takes on the value of 1 if any of the relatives and friends mentioned above ever migrated to the US and 0 if they never migrated to the US.

Relations in the United States

As established in theory and previous research, there is a likely relationship between the relations that a migrant has in the US and the success in the integration. In this analysis, there will be four variables that try to capture this theoretical relationship. The first one concerns the family of the migrant. The dummy variable takes on the value of 1

if the migrant contacted or lived with members of his family other than spouse or children and 0 otherwise. It is assumed that the individual gets integrated in the community more easily when staying with family members that already live in the United States.

The other three variables involve the relationships of the migrant. The relationships considered here are the ones with people from the same country, those with Anglo-Americans and those with other Latinos. The variable is a categorical variable and can take on five different values: no relations with the respective group, relations only in the workplace, friendship, very close relationship and other kind of relations. Depending on the type of relationship with these numbers there is either an integration in the mainstream (relations with Anglo-Americans) or in a society of other people from the same country or from Latin America. The reference category in the analysis will be not having any relations with the respective group. There are some issues with the category other relations. It is omitted in the analysis for Anglo-Americans and for Latinos, since it is completely determined by the other variables. Only for coethnics it could be included in the analysis; however, there are only two observations which would lead to highly biased results. In the analysis, only four categories will be included and the category other relations will be dropped for all relationship variables.

English Use

The migrants under study here come from countries in which Spanish is the official language. Thus, it is necessary for them to learn English when coming to the US. As mentioned in the previous section, language ability is associated with labor market integration in the US and thus, three variables related to language proficiency are included in the analysis. First, self-reported language ability is included. Language ability is measured on a five-point scale with these four categories: neither speaks, nor understands, does not speak, but understands some, does not speak, but understands much, speaks and understands some and speaks and understands much. The reference category in the analysis will be neither speaks, nor understands.

Another important dimension of language ability is the use of it at home and at work. Both variables are categorical variables with the following categories: none, sometimes, often and always. The reference category in the analysis will be no English use at home or at work, respectively.

Employment Characteristics

To determine how migrants integrate in the labor market, it is important to also take into account the characteristics of this employment. One important variable is years of education. The more years of education an individual accumulated, the higher the expected wage. However, due to the limited transferability of education to the US, years of education might be less correlated with the labor market outcome of a migrant.

As mentioned before, migrants often integrate in different labor markets and use their social capital to obtain employment. The data set contains information on how the job was obtained and the race of the employer during the last migration. The variable on how the employment was obtained is a categorical variable that initially had seven categories. To be able to use this variable in the analysis, some categories have been pooled together and the final variable has the following four categories: searched by oneself, recommended by a relative, recommended by a friend and a pooled category of other ways how employment was obtained (i.e. recommended by a community member, via an employment agency, contracted and through a payment to a community member or a friend). Lastly, the employer's race might be relevant for the labor market outcome of the migrant. This categorical variable has five different values: Anglo-American, member of another minority (i.e. Asian or Black), from the same country, another Latino and other race. Four observations had to be set to missing since they had information on wage and employment, but this variable took the value of not having had a job during the last migration. Having an Anglo-American employer will serve as the reference category, since it is assumed to be the most common case in the United States.

Individual Migratory Experience

The individual migratory experience is assumed to also impact on the labor market integration. As outlined in the Assimilation Theory, it is assumed that the time an individual already spent in the US and how many times he or she has been to the US will impact positively on the labor market performance. Thus, two variables are included in the analysis that try to capture this effect. The first one is the total time spent in the United States in months and the second one is the total number of US trips made by the individual. The higher either of the variables, the higher the assumed labor market success in the United States. Additionally, the age at migration plays an important role. The older an individual gets, the harder it might be to integrate into a new labor market. The

variable has been created based on other information provided in the data set, namely the year of birth and the year of the last trip to the United States. The difference between these two is equal to the age of migration. Because this thesis is concerned only with the labor market integration, all individuals younger than 18 and older than 64 are excluded. It is assumed that younger individuals cannot integrate in the labor market due to protection laws of minors and that individuals older than 64 will not participate in the same way as younger migrants. Due to this age limitation, 79 observations were deleted.

In the background section, the legal restrictions of migration to the US from Central America and the Caribbean were outlined. Thus, the documentation used during the last US migration is assumed to be an important determinant for the successful labor market integration. However, the information on the documentation used by the migrants is limited and many individuals did not report their documentation. Thus, this indicator cannot be used in the analysis without reducing the number of observations to a significantly lower level. It will be assumed that the differences in the documentation used during the last migration will be absorbed by the country dummies included in the analysis. However, the omission of this variable might induce a bias in the results.

4.4 Control and Mediating Variables

This section presents the control and mediating variables used in the analysis. They are included because they might have an impact on the dependent variables but will not be in the focus of the interpretation of the results. In the regression tables in the results section, these variables will be summarized under the line controls in the end of the thesis.

Individual Characteristics

Individual characteristics of the migrants are included to account for some heterogeneity between them which also possibly impacts on the labor market performance. The two characteristics included are gender and marital status. Gender is defined as a dummy variable that takes on the value 1 for male migrants and 0 for female migrants. Since gender impacts on the labor market performance and there has been evidence that male and female migrants differ in their labor market performance, it is important to include in the analysis. Marital status is a categorical variable that has four different categories, namely married or being in a consensual union, widowed, separated or divorced and never

married. Unfortunately, the information provided refers to the time of the survey and not at the time of migration. Nevertheless, it is assumed that the marital status for most migrants on their last migration did not change until the interview and thus, it will not bias the results significantly.

Year of Migration

In the background section it became clear that different migratory streams entered the United States over the past years. Especially during the 1970s and 1980s, many people fled their home countries to escape political unrests. Thus, it is important to control for these historical differences in the migratory streams. Following Flores (2010), three dummy variables are created to account for the different time of migration: one for the 1970s, one for the 1980s and one for migrations that took place during the 1990s and 2000s. The time period between the first migration reported in the data until the 1970s will serve as the reference category.

Country

The countries included in the analysis are Costa Rica, the Dominican Republic, El Salvador, Guatemala, Nicaragua and Puerto Rico. In order to be able to compare the results of the analysis between the countries, a dummy variable for each country will be included in the analysis. In the analysis, the dummy variable for El Salvador gets omitted due to collinearity in all regression frameworks. This might be due to the fact that the results are too similar to the migration experience in Puerto Rico, which is the reference category, or because there are only 29 observations about employed individuals for El Salvador. This means that some parts of the analysis will ultimately only include five countries instead of six, as initially stated.

To get a more detailed picture of the migratory experience of each country, it would have been advantageous to conduct separate analysis for each country. However, the observational numbers for at least some countries are too low to get statistically meaningful results. Thus, including a dummy variable can be considered the best option for the data available. Puerto Rico will serve as the reference category.

4.5 Variables used only for descriptive results

As mentioned before, a third subset of the LAMP data base will be used for the descriptive results. In this subset, all individuals with migratory experience are recorded

and not only the household heads. It is assumed that this subset will yield a more general insight in the migratory patterns of migrants from Central America and the Caribbean.

The variable used is the destination of the migrants in the United States. The data set contains information about the state and the place of residence in the United States during the last migration. Due to the large availability of information about the state, the focus lies on this variable. In total, there is information on 3,182 individuals that reported to have migrated at any point in their life and the destination state in the US.

Table 3: Summary Statistics

Variables	Mean	Min.	Max.	Std. Dev.	Obs.
<i>Dependent Variables</i>					
Employment	0.676259	0	1	0.468183	834
Log. Wage	1.927347	-0.99425	6.729824	0.800794	564
Occupational Status	1.748227	1	3	0.722941	564
<i>Independent Variables</i>					
<i>Family Migratory Experience</i>					
Mother	0.174603	0	1	0.379859	819
Father	0.123472	0	1	0.329179	818
Siblings	0.568485	0	1	0.495588	825
Children	0.152278	0	1	0.359506	834
Extended Family	0.814149	0	1	0.38922	834
<i>Relations in the United States</i>					
Contact to Relatives	0.559902	1	5	0.496703	818
Coethnics	2.468582	1	5	1.117793	557
Anglo-Americans	2.31127	1	5	1.449162	559
Latinos	2.281426	1	5	1.027613	533
<i>Individual Migratory Experience</i>					
Number of US Trips	1.510791	1	26	1.50246	834
US Experience	112.7993	0	736	115.4069	832
Age at Migration	32.75899	18	64	10.81985	834
<i>Language</i>					
Ability	2.960736	1	5	1.347827	815
Use at Home	1.470952	1	4	0.78473	809
Use at Work	2.264388	1	4	1.041599	556
<i>Employment Characteristics</i>					
Years of Education	9.094317	0	20	4.459482	827
Race of Employer	2.296296	15		1.633967	513
Job Obtainment	2.270125	1	4	0.9674	559
<i>Control Variables</i>					
Sex	0.741007	0	1	0.438345	834
Marital Status	1.570228	1	4	0.929059	833
Year of Migration	1984.821	1933	2007	14.71051	834

Information for English use at work, relations to Anglo-Americans, Latinos and Coethnics, how the job was obtained and race of employer only for those employed. Shares of the different categories can be found in Appendix A. Summary Statistics for each country can be found in Appendix A.

5 Model and Methods

5.1 Model Specification

The relationship between the three dependent variables and the different indicators for the assimilation and integration of immigrants into the US society will be analyzed both descriptively and in a regression analysis. Because there are three different dependent variables, there will also be three different models for the regression analysis. Each model will be described individually in the following section.

5.1.1 Employment

Employment is a binary variable that takes on the value 1 if an individual has a reported wage during its first migration to the United States. To estimate the impact of the independent variables on the probability of employment, a logistic regression will be performed. This method estimates a maximum likelihood function which is an iterative approach. Several solutions are calculated until the probability of obtaining the estimated coefficients is highest (Acock, 2014). The coefficients cannot be interpreted straightforward. Only the sign of the coefficients in the regression table can be interpreted. To get information of the size of the effect the odds ratio has to be calculated first. This gives information about the odds of the outcome, here the odds of being employed dependent of a certain outcome, and can be easily calculated with a statistical program.

5.1.2 Logarithmic Wage

To estimate the relationship between the wage rate and the independent variables an OLS regression will be performed. In this approach a linear relationship between the independent variables and the outcome variable is assumed. In this analysis, the sum of the squared residuals is minimized to best fit the regression function into the data (Gujarati and Porter, 2009). The coefficients in the regression table can be interpreted as the change they induce in the independent variable if they change by one unit. Since wage is used in its logarithmic form, the coefficients measure the percentage change in the hourly wage rate if the respective independent variable changes by one unit. In this part of the analysis, only those individuals that have a reported wage on their last migration can be considered.

5.1.3 Occupational Status

The variables for the occupational status can take on three values: unskilled, skilled and highly skilled. To estimate the effect of the independent variables on the occupational status a multinomial logit regression will be performed. The assumptions and the interpretations are the same as for the binominal independent variable. Again, since the coefficients of the regression analysis cannot be directly estimated, the odds ratios are calculated for each independent variable. The model estimates the likelihood of being in a highly skilled or skilled occupation compared to being in an unskilled job dependent on the variables included in the model. In this part of the analysis, only those individuals that have a reported wage on their last migration can be considered.

5.2 Limitations

Reversed Causality

The set-up of the model implies that the independent variables included cause the change in the respective labor market outcome of the migrant during their last migration to the United States. In other words, changes in e.g. the English ability of the individual or the race of the employer are causally related to changes in the labor market outcome. However, the causality might be opposite, meaning that because an individual has a certain level of labor market integration the language abilities improved or because the individual obtained a certain job, the employer is more likely to be of a certain race. This incident is called reversed causality and consequently, the results of the analysis cannot be interpreted as being causal. There is no statistical way to prevent this given the data structure and thus, it has to be kept in mind when interpreting the results.

Omitted Variable Bias

Even though the model presented here tries to include many relevant variables that impact on the labor market integration of migrants from Central America and the Caribbean, there are most likely variables omitted from this model. These omitted factors thus enter the error term, making the model less accurate. Factors that cannot be included encompass attitudes of the migrants, attitudes prevailing in the host country or the environment of the migrants or the state of the labor market during the time the migrants arrive. This list could be extended almost endlessly, but the model cannot be extended to include all of them. Considering this limitation, the results of the analysis might not reflect all factors

with a potential on the labor market success of the migrants.

Heteroskedasticity

Heteroskedasticity is likely to impact on the results of this analysis. The results of an analysis are heteroskedastic when the variance of the error term is not constant. However, a constant error term is needed to get an unbiased and efficient estimator. If heteroskedasticity is present in the analysis, coefficients will appear insignificant even though they would not in absence of it (Gujarati and Porter, 2009). To prevent this from limiting the explanatory power of the model, robust standard errors are calculated for all regressions (Acock, 2014).

Multicollinearity

Multicollinearity is defined as the correlation between the regressors in the analysis which leads to inflated standard errors. As a result, the coefficients cannot be interpreted precisely (Gujarati and Porter, 2009). In the regressions, it is likely that some of the variables are correlated with one another. For example, if the father was a migrant, it is likely that the mother was a migrant as well and accompanied the father on his migration. Another example might be the language ability of an individual. If the individual can only speak little English, it is less likely that English is spoken at home or at the work place. To check whether this problem impacts on the analysis, Variance Inflation Factors (VIF) are calculated after the analysis. VIF measure to what degree the results are limited in their significance for each independent variable. If the VIF is larger than 10, the results are biased and cannot be interpreted accurately (Acock, 2014). In the different regression analyses performed in this thesis, the VIFs are never higher than 10 which indicated that multicollinearity is not an issue in the analysis.

Self-Reported Data Measurement Error

The data provided in the LAMP data base is mostly self-reported, meaning that there is no way to objectively verify them. This might represent an issue for some variables, like wage rate in the US, language ability or job description, but is completely fine for other variables, like gender or the year of birth. For this setting, it is especially important that the individuals recall the details of their last migration with accuracy. However, on average there are 16 years between the last migration and the date of the survey. Following Schacter (1999), the memory of an individual is flawed in seven ways, namely transience, absentmindedness, blocking, misattribution, suggestibility, bias, and persistence. These

flaws might lead to wrongful answers of the individual and thus, the information provided cannot be taken as true for the situation. It has been mentioned before that the LAMP has made an effort to ensure the validity of the information given, but nevertheless a complete verification is not possible. Thus, the results of the self-reported variables have to be taken with caution.

Additionally to the possible bias due to self-reported data, there might also be issues with the measurement of the variables. Since there is no common way of how to define the variables, different individuals might respond differently despite the same characteristics. This might be especially relevant for language ability and the duration in the United States. Moreover, there is no way to report information outside the questionnaire. For example, a secondary occupation an individual might hold would not enter the data even though it might be relevant for this analysis.

Discrimination

It is possible that migrants from Central America and the Caribbean face discrimination in the US when entering the labor market. There is only little empirical evidence about the discrimination that Latinos face in the US society (Dovidio et al., 2010). Since the individuals all fall under the same race category, it is not important how Latinos are discriminated against compared to Anglo-Americans, but rather between each other. Frank et al. (2010) finds evidence that Latinos with darker skin experience discrimination in the workplace. Since migrants from Central America and the Caribbean are a heterogeneous group in terms of their phenotype, it is likely that some migrants are discriminated based on their appearance, while others are not (Frank et al., 2010). Central Americans can be described as mestizo, while people from the Caribbean are rather from African origins, suggesting that migrants from the Caribbean might experience more discrimination (Connor and Massey, 2010; Castles and Miller, 2009). By simply including a dummy variable for the country of origin this discrimination and the heterogeneity within a country cannot be captured. As a result, the estimates might be biased by this omitted dimension that can impact on several independent variables in the model. Again, the results have to be taken with caution and might not represent a clear causal relationship.

Data Structure

The data structure is a cross-section meaning that there is one observation per individual. However, assimilation, adaptation and integration are long-term processes that

develop over time (Connor and Massey, 2010). With the data structure at hand, this process can only be measured inadequately. Nevertheless, there have been some precautions in the selection of the variables at hand to at least try to get a temporal dimension in the model. First, only the last migration to the US has been used to indirectly account for prior experience that also impacts on the labor market performance of an individual. Secondly, different generational variables have been included to account for the family experience of an individual. This is not enough to really be able to capture this long-term process, but for the data at hand, this is a step towards a higher level of accuracy.

Data Collection

The data collected in the Latin American Migration Project stems from different years. As already mentioned in the previous section, the interviews were conducted between 1998 and 2007. As a result, the information collected might not be comparable and different time spans are considered in each country. For the analysis it will be assumed that the time difference in data collection does not have an impact on the results, but it has to be kept in mind when trying to make causal inferences.

5.3 Final Model

Based on these consideration, the final models look like the following:

$$\begin{aligned}
 \text{LaborMarketOutcome} = & \alpha + \beta_1 \text{FamilyMigratoryExperience} & + \beta_2 \text{RelationsInTheUnitedStates} \\
 & + \beta_3 \text{IndividualMigratoryExperience} & + \beta_4 \text{Language} \\
 & + \beta_5 \text{EmploymentCharacteristics} & + \beta_6 \text{CountryOfOrigin} \\
 & + \varepsilon
 \end{aligned}$$

Equation 1 and 3 are estimated using a logistic regression, equation 2 is estimated with an OLS regression. The calculated standard errors are robust. Independent and control variables have been presented in the previous section, as well as the respective reference categories and possible values. Depending on the dependent variable not all variables from each category will be used in the analysis, i.e. for the analysis of the employment probability all employment characteristics will be left out. Due to the limitations outlined above, the data does not allow for any causal interpretation of the coefficients and thus, the estimated effects will be analyzed as associations.

6 Empirical Analysis

6.1 Descriptive Results

6.1.1 Destination States in the United States of America

In the background section, the general patterns of geographical dispersion of migrants from Latin America to the United States has been presented. It has been stated that most Hispanic migrants settled in the Western and Southwestern states and that Central Americans and Caribbean's rather settled in states on the East coast.

When looking at the data from the Latin American Migration Project to see if the small sub-sample from Central America and the Caribbean has the same patterns, it becomes clear that the geographical spread over the United States of America looks quite similar to the spread outlined in the background section. The vast majority of all people surveyed within the project settled on the East coast and only a few migrated to the Southwestern states. Over 60 percent of the 3,812 migrants surveyed settled in New York, New Jersey and Florida during their last trip to the United States, while only 10 percent migrated to California. Within each country, between 63 percent and 93 percent of the migrants settled in just three states, which shows a large concentration of migrants. Looking at each country individually, it becomes clear that the most important destination states are located on the East coast. Only at second or third place, states in the Southwest gain importance in Costa Rica, El Salvador, Guatemala and Nicaragua (see Table 4). This might be due to the different routes that migrants take to the United States. It seems more likely for the four aforementioned countries to migrate on the land way through Mexico. If this route is taken rather than go on the sea way, the Southern states are the closest states to the entry point in the United States. For Puerto Rico and Nicaragua, migrating via the sea way directly to the East coast seems the most likely route and thus, it is understandable to also settle on that side of the county. Another interesting finding is the importance of Puerto Rico as a destination state for migrants from the Dominican Republic. Due to its geographical proximity, it might be easier for Dominicans to migrate to Puerto Rico than to the mainland of the United States.

It has to be mentioned that this analysis does not take into account the different years of migration of the individuals surveyed. Thus, it might be possible that there was also a shift in destination states, as it has been stated in the background section.

Table 4: Frequency of Destination States in the US

Country	Most frequent destination state	2nd most frequent destination state	3rd most frequent destination state	Percentage in three states combined
Costa Rica	New Jersey	Texas	Florida	78.8%
Dominican Republic	New York	New Jersey	Puerto Rico	91.7%
El Salvador	Washington, D.C.	California	Virginia	62.8%
Guatemala	New Jersey	Illinois	California	84.6%
Nicaragua	Florida	California	New York	85.7%
Puerto Rico	New York	Pennsylvania	New Jersey	71.6%

Data from the LAMP Data Set (2017)

What this section showed, is a geographic concentration of people from the region in the United States. This finding is in line with the findings in the literature. Even though the data used here is not representative for the whole region, it closely resembles the settlement patterns that have been found using representative data on immigration to the US. The limited geographical dispersion in the US might already indicate that networks represent an important asset for migrants and locating close to other migrants is considered advantageous. In the following, this relationship will be tested analytically.

6.2 Regression Results

The first step to analyze the labor market integration of migrants concerns their employability. Because the dependent variable is the probability of being employed only the independent variables unrelated to the employment circumstances are included. Table 5 shows the results of the logistic regression analysis. It is apparent from this table that only very few variables yield significant results. However, if these variables have significant coefficients, their impact on the employment probability is substantial. Having a sibling or a child with migratory experience compared to having a sibling or a child without migratory experience increases the odds of being employed in the US by 90 percent and 80 percent, respectively.

A smaller effect can be found for the individual migratory experience. The odds of being employed after having spent two years in the US are 15.99 percent higher compared to a migrant that has only spent one year in the US. This effect grows even larger when comparing a migrant that spent two years in the US to a migrant that spent ten years in the US. Then, the odds of being employed are 56.05 percent higher for the individual that has ten years of experience in the US.

English proficiency also impacts significantly on the employability. Compared to an individual that neither speaks, nor understands English, the probability of being employed rises with English-speaking ability. Being able to at least understand some English or understanding much English, compared to neither speak nor understand anything, is associated with odds of being employed that are twice as high. Being able to understand and speak much English is not significantly associated with employability, which is surprising. If this result is driven by the segment in which migrants integrate in the labor market will be analyzed when looking at the job category the migrants select into. Since not only the language ability was assumed to be important, the use of English at home has also been taken into account. Always speaking English at home compared to speaking use Spanish, increases the odds of being employed three times.

When looking at the information on the country of origin, there seems to be an advantage for Puerto Ricans in the US labor market in terms of employability. Compared to a migrant from Puerto Rico, migrants from Nicaragua, Costa Rica, Guatemala and El Salvador have between 45 and 65 percent lower odds of being employed. Only the coefficient for migrants from the Dominican Republic is insignificant. These lower odds of being employed might be driven by the documentation of the migrants. Since migrants from Puerto Rico are legal citizens it might be easier for them to find employment.

Table 5: Employment Probability

	Coefficient	S. E.	Odds Ratio	S. E.
Family Migratory Experience				
Mother	0.0076	0.325	1.0076	0.328
Father	0.3921	0.382	1.4801	0.565
Siblings	0.6418***	0.190	1.8999***	0.362
Children	0.5975**	0.297	1.8175**	0.540
Extended Family	0.3605	0.233	1.4340	0.334
Relations in the United States				
Contact to Relatives	-0.0917	0.186	0.9124	0.170
Individual Migratory Experience				
Number of US Trips	-0.0127	0.079	0.9873	0.078
US Experience	0.0062***	0.001	1.0062***	0.001
Age at Migration	0.0092	0.010	1.0092	0.010
Language				
<i>Ability</i>				
no speak, some understand	0.7988***	0.272	2.2228***	0.605
no speak, much understand	0.7349**	0.344	2.0853**	0.716
speak and understand some	0.6595**	0.290	1.9339**	0.561
speak and understand much	-0.0100	0.351	0.9900	0.347
<i>Use at Home</i>				
sometimes	0.1648	0.236	1.1792	0.279
often	0.1182	0.449	1.1255	0.505
always	1.1086*	0.629	3.0300*	1.905
Employment Characteristics				
Years of Education	0.0060	0.022	1.0060	0.022
Countries				
Dominican Republic	-0.5490	0.356	0.5775	0.206
Nicaragua	-0.9044**	0.354	0.4048**	0.143
Costa Rica	-0.5979*	0.328	0.5500*	0.181
Guatemala	-0.9300**	0.413	0.3945**	0.163
El Salvador	-1.0366 **	0.466	0.3547**	0.165
Constant	-1.6251***	0.576	0.1969***	0.113
<hr/>				
Demographic and Time Period Controls	Yes		Yes	
Observations	764		764	
Pseudo R^2	0.1395		0.1395	

Reference Categories: English Ability - neither speak, nor understand; Use at Home - never;

Relations - no relations with the respective group; Country - Puerto Rico

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

The second dimension of labor market integration is the wage that migrants earn when they manage to find employment. Table 6 reports the regression results for three different specifications. What becomes clear is that different variables seem to impact significantly on wages, that have not been relevant for the employability of migrants. Moreover, depending on the variables included the results vary slightly.

Column (1) shows the same model specification as used for the analysis for the employability. While having a sibling or child with migratory experience, the time spent in the US and the use of English at home seem to be important for both indicators, other indicators change their significance. The most striking result is that years of education was unrelated to the employability, while this variable yields a highly significant result for the hourly wage. This might be driven by the fact that many migrants work in low entry jobs where the level of education is not that important, but when it comes to the hourly wage differences in the years of education gain importance. Having one additional year of schooling is associated with a 2.6 percent increase in the hourly wage. Another important finding is a change in sign and significance for the variable for English ability. Whereas English ability was significantly positive for the employment probability, it seems to be significantly negative at least in one dimension for the hourly wage. This finding is counterintuitive since it seems more likely that the wage level increases if an individual is able to understand some English.

In column (2), all indicators relevant for the employment characteristics have been included in the analysis. These results will not be discussed in detail because the full model specification is assumed to paint a more complete picture of the relationship between the independent variables and the hourly wage.

Column (3) combines the two previous columns and includes all variables presented in the previous section. Having a sibling or someone in the extended family that has migratory experience is associated with an increase in the hourly wage rate of 13.30 percent and 20.15 percent respectively. Having a child or parents with migratory experience does not yield a significant result.

The next category concerns the relations that a migrant has in the US. Having contact to relatives and other Latinos does not seem to impact significantly on the hourly wage but being in contact to Anglo-Americans and individuals from the same country does. Being very close to people from the same country of origin is associated with a 17.45 percent

increase in the hourly wage. This might indicate that the social network of a migrant is important for the labor market success and provides information or other resources that can be used to get an advantage in the labor market. On the other hand, having relations with Anglo-Americans is also significantly associated with the outcome variable. Being friends with Anglo-Americans or being very close to them, is associated with a 25.38 percent or 31.26 percent increase in wages. Thus, being more integrated into the mainstream of the society, has an even larger impact on the labor market success than being related to individuals from the same country of origin.

It has been found in the first part of the analysis that the time in the US is positively related to the probability of finding a job in the US. This finding can be confirmed here as well. Being in the US one additional month is associated with an increase in hourly wage by 0.25 percent. This coefficient seems small at first sight and thus, it is useful to look at the impact of a larger time span. Being in the US twelve more month is associated with an increase of 6 percent in the hourly wage. This result suggests that migrants are able to transform their experience in the US into an asset that can be used to strengthen their labor market position over time.

It has been hypothesized that language ability will impact on the labor market performance and an association has been found between language ability and employability. For the hourly wage in the US, this association is not found for most of the indicators. Being able to understand some English and always using English at home is associated with a decrease in the hourly wage. This finding is surprising and against the expectations since a higher degree of English knowledge and use was expected to be beneficial for the labor market outcome. In contrast to this, there is a positive association between the use of English at the workplace and the hourly wage. Using English at work often or always is associated with an increase in hourly wages of 35.96 percent or 25.43 percent. This finding is in line with the hypotheses since it was assumed that being more integrated in the mainstream labor market increases the success.

Lastly, the circumstances of the employment have been considered to be important. While years of education loses significance compared to the first two specification, the race of the employer seems to be relevant. Having an employer from the same country of origin is associated with an increase in the hourly wage by 24.57 percent. This might point into the direction that employers from the same country use the social network as

a way of screening their employees and due to enforceable trust and better information about their abilities are able to pay them higher wages.

As in the model concerning the employability, there are significant differences between the countries under study. While there seems to be no difference in wages between migrants from Puerto Rico and migrants from Guatemala, migrants from the Dominican Republic, Nicaragua and Costa Rica seem to earn higher wages. Being from Nicaragua for example is associated with a 59.19 percent increase in the hourly wage compared to an individual from Puerto Rico. These results are especially striking since the probability of being employed was significantly larger for migrants from Puerto Rico. It seems that migrants from Puerto Rico have an advantage of finding employment, but when they find employment they are paid significantly less.

Table 6: Logarithmic Wage

	(1)		(2)		(3)	
	Coefficient	S. E.	Coefficient	S. E.	Coefficient	S. E.
Family Migratory Experience						
Mother	0.1250	0.107			0.1709	0.125
Father	-0.1465	0.094			-0.1332	0.113
Siblings	0.1285*	0.054			0.1249**	0.059
Children	0.0122	0.074			0.0183	0.084
Extended Family	0.2505***	0.070			0.1835**	0.074
Relations in the United States						
Contact to Relatives	-0.0559	0.053			-0.0043	0.059
<i>Coethnics</i>						
workplace only			0.0591	0.105	0.0877	0.112
friendship			0.0265	0.095	0.0337	0.094
very close			0.1483	0.093	0.1608**	0.090
<i>Anglo-Americans</i>						
workplace only			0.1256	0.090	0.1327	0.087
friendship			0.2390**	0.109	0.2262**	0.106
very close			0.2479**	0.114	0.2720 ***	0.112
<i>Latinos</i>						
workplace only			0.2257*	0.117	0.1774	0.117
friendship			0.1100	0.110	0.0862	0.111
very close			0.1987	0.124	0.1384	0.118
Individual Migratory Experience						
Number of US Trips	-0.0130	0.022			-0.0135	0.023
US Experience	0.0026***	0.000			0.0025***	0.000
Age at Migration	-0.0023	0.003			-0.0018	0.003
Language						
<i>Ability</i>						
no speak, some understand	-0.1952*	0.116	-0.2189	0.138	-0.2575*	0.137
no speak, much understand	-0.0623	0.126	-0.1369	0.155	-0.1406	0.155
speak and understand some	-0.1051	0.120	-0.1909	0.149	-0.2495	0.155
speak and understand much	0.1410	0.136	-0.2240	0.180	-0.1599	0.178
<i>Use at Home</i>						
sometimes	0.1103	0.072	-0.0220	0.024	0.0477	0.078
often	-0.0101	0.097	0.0026***	0.000	-0.1254	0.104
always	-0.2586*	0.133	-0.0045	0.003	-0.2529*	0.146
<i>Use at Work</i>						
sometimes			0.1146***	0.082	0.1214	0.085
often			0.3186	0.115	0.3072**	0.122
always			0.2386	0.146	0.2266*	0.131
Employment Characteristics						
Years of Education	0.0264***	0.007	0.0221***	0.008	0.0229	0.008
<i>Race of Employer</i>						
other minority			0.1386	0.119	0.1664	0.118
same country			0.2553***	0.089	0.2197**	0.101
other Latino			0.0444	0.105	0.1234	0.109
other			-0.0957	0.082	-0.0562	0.084
<i>Job Obtainment</i>						
Relatives			-0.0019	0.080	-0.0247	0.080
Friends			-0.0845	0.082	-0.1337	0.083
Other			0.0095	0.109	0.0247	0.107
Countries						
Dominican Republic	0.0642	0.084	0.2232***	0.083	0.1587*	0.094
Nicaragua	0.3859***	0.104	0.5204***	0.132	0.4649***	0.123
Costa Rica	0.4087***	0.086	0.4819***	0.108	0.4277***	0.099
Guatemala	0.2134	0.148	0.2426	0.147	0.2429	0.166
El Salvador	0.3078**	0.131				
Constant	0.1758	0.194	0.2047	0.246	-0.0628	0.247
Demographic and Time Period Controls						
Observations	Yes		Yes		Yes	
	539		482		463	
R^2	0.4526		0.4465		0.5504	
Adjusted R^2	0.421		0.399		0.444	

Reference Categories: English Ability - neither speaks, nor understands; Use at Home - never;

Use at Work - never; Relations - no relations with the respective group;

Race of Employer - Anglo-American; Job Obtainment - self; Country - Puerto Rico

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

The last labor market outcome studied in this thesis is the probability of being employed in different occupations. Table 7 shows the probability of being employed in a skilled occupation and Table 8 shows the probability of being employed in a highly skilled occupation. Regression results for the smaller model specification as presented for the regression concerning wage rates can be found in Table 16 and 17 in Appendix B. First, the results for the skilled occupations will be presented.

The probability of being in a skilled occupation seems to be unrelated to the migratory experience of the family members. This result is surprising since it was assumed that especially the contact to former migrants impacts on the labor market performance and significant results were found in the previous part of the analysis. What seems to be important is the individual migratory experience. Having been on one additional trip to the US increases the odds of ending up in a skilled job by 34.36 percent. It was assumed that the coefficient of age at migration has a negative sign because the older a migrant gets, the harder it will be to integrate in the labor market successfully. Comparing an 18-year-old migrant with a 30-year-old migrant, the younger migrant has 24.36 percent lower odds of being in a skilled occupation, all else equal.

As in the previous models, the variables measuring English ability and use yield highly significant results. However, not all findings are in line with the expectations. Being able to understand and speak some or much English is associated with a decrease in the probability of being in skilled occupation compared to be in an unskilled occupation. This is surprising since it was assumed that the higher skilled the occupation, the more English is required, and a higher proficiency is beneficial. This finding cannot be confirmed here. In contrast, the use at home and at work impacts significantly on the probability of a skilled occupation. For those migrants that sometimes speak at home the odds of being in a skilled occupation are 2.3 times greater than for those who do not use English at home. The same holds for using English at work, where migrants that often or always use English have 3.3 and 3.8 higher odds of being in a skilled occupation.

Previously, it has been found that being employed by someone from the same country is associated with an increase in the hourly wage. This finding can be confirmed here. The odds of being employed in a skilled occupation are 4.4 times greater if the employer is from the same country compared to the case where the employer is Anglo-American. Again, this finding points into the direction that social networks can be used to get an

advantage in the labor market and being from the same country creates a form of capital that can be translated into a better labor market position.

Lastly, there are differences between the countries under study here. All countries, except El Salvador, have higher odds of being employed in a skilled occupation compared to Puerto Ricans. This is in line with the previous results where Puerto Ricans also earn a significantly lower wage than migrants from the other countries.

The last part of the analysis concerns the odds of ending up in a highly skilled occupation. While family migratory experience was not significantly related to the probability of being in a skilled occupation, they are related to the probability of being in a highly skilled occupation. Having a child with migratory experience lowers the odds of doing a highly skilled job. This result is surprising. However, it might be driven not by the fact that having children in general might be a hindering factor for being in a highly skilled job.

In contrast to the results from Table 7, Table 8 indicates that relations in the United States are important for the probability of working in a highly skilled occupation. For those that are friends with coethnics, the odds of being in a highly skilled occupation are 3.52 times greater than for those who do not have relationships with them. Similar results can be reported for relations with Anglo-Americans. The odds of being in a highly skilled occupation are 6.28 times greater for those that are very close to Anglo-Americans. These results suggest that being in contact with individual from the mainstream society have a higher chance of being in a highly skilled occupation, but also those who remain in contact with people from the same country can convert these contacts into a higher chance of being successful in the labor market. The most striking result however concerns the relations with other Latinos in the US. For those who meet Latinos only in the workplace, the odds of being in a highly skilled occupation are 21.41 times greater than for those who do not have relationships with them and for those who are very close with Latinos, the odds of being in a highly skilled occupation are 8.85 times greater. This suggests that having social ties to other Latinos is even more important than being in contact with people from the same country or with people from the mainstream society. Nevertheless, all findings suggest that migrants are able to use their social ties to integrate in the labor force and obtain a high occupation from it.

The next important finding that can be drawn from the regression results in Table 8, concerns the employment characteristics. Having an employer from the same country or from another minority, is associated with an increase in the probability of being employed in a highly skilled occupation. Especially, when the employer is from the same country, the odds of ending up in these positions are 26.54 times greater compared to having an employer from the US. This indicates that especially for highly skilled individuals social capital and relations to people from the same country are of importance and can lead to a better position in the labor market. How the job was obtained yields significant results in this specification. However, these results are not in line with the expectations. It was assumed that being recommended by someone in the family or friends impacts positively on the labor market outcome since it is an additional source of information for the employer. The results here suggest that being recommended by a relative or a friend decreases the odds of being employed in a highly skilled occupation between 82.85 and 74.2 percent. This result might be driven by the occupational status. In highly skilled occupations the recommendation by a friend or relative might be hindering since at this level other things are more important for the decision of hiring a worker.

In contrast to previous findings, there are less differences between the countries when it comes to the high occupational status. Only migrants from the Dominican Republic and Nicaragua have significantly higher chances of being employed in a highly skilled occupation compared to migrants from Puerto Rico.

Table 7: Employment Probability - Skilled Occupation

	Coefficient	S. E.	Odds Ratio	S. E.
Family Migratory Experience				
Mother	-0.0670	0.434	0.9352	0.406
Father	0.3754	0.476	1.4556	0.693
Siblings	-0.1143	0.278	0.8919	0.248
Children	0.0669	0.315	1.0692	0.337
Extended Family	0.5421	0.376	1.7196	0.647
Relations in the United States				
Contact to Relatives	0.2569	0.256	1.2930	0.331
<i>Coethnics</i>				
workplace only	-0.3266	0.495	0.7214	0.357
friendship	-0.1276	0.475	0.8802	0.418
very close	0.3201	0.467	1.3772	0.643
<i>Anglo-Americans</i>				
workplace only	-0.2850	0.381	0.7520	0.287
friendship	-0.6582	0.429	0.518	0.222
very close	0.6785	0.483	1.9710	0.953
<i>Latinos</i>				
workplace only	0.7105	0.572	2.0351	1.165
friendship	0.0026	0.542	1.0026	0.544
very close	-0.0818	0.592	0.9215	0.545
Individual Migratory Experience				
Number of US Trips	0.2954***	0.110	1.3436***	0.148
US Experience	0.0013	0.001	1.0013	0.001
Age at Migration	-0.0231**	0.013	0.977**	0.013
Language				
<i>Ability</i>				
no speak, some understand	-0.5109	0.463	0.6000	0.278
no speak, much understand	-0.7592	0.571	0.4680	0.267
speak and understand some	-0.9450*	0.546	0.3887*	0.212
speak and understand much	-1.3143**	0.645	0.2687**	0.173
<i>Use at Home</i>				
sometimes	0.8248**	0.332	2.2816**	0.757
often	0.1324	0.496	1.1416	0.566
always	0.6448	0.7236	1.9057	1.379
<i>Use at Work</i>				
sometimes	0.4829	0.367	1.6207	0.595
often	1.1962**	0.496	3.3078**	1.641
always	1.3416**	0.533	3.8252**	2.039
Employment Characteristics				
Years of Education	0.0474	0.032	1.049	0.034
<i>Race of Employer</i>				
other minority	0.2739	0.581	1.3151	0.764
same country	1.4924***	0.546	4.4478***	2.429
other Latino	0.1653	0.3968	1.1798	0.468
other	0.2006	0.321	1.2221	0.392
<i>Job Obtainment</i>				
Relatives	-0.0950	0.362	0.9094	0.329
Friends	-0.3263	0.330	0.7216	0.238
Other	-0.0810	0.446	0.9222	0.411
<i>Countries</i>				
Dominican Republic	1.5701***	0.452	4.8078***	2.172
Nicaragua	1.2116**	0.528	3.3589**	1.775
Costa Rica	0.8907**	0.494	2.4370**	1.204
Guatemala	2.0156***	0.661	7.5052***	4.963
El Salvador				
Constant	-1.6902	1.1600	0.1844	0.214
<hr/>				
Demographic and Time Period Controls	Yes		Yes	
Observations	463		463	
Pseudo R^2	0.2707		0.2707	

Reference Categories: English Ability - neither speaks, nor understands;
Use at Home - never; Use at Work - never; Relations - no relations with the respective group; Race of Employer - Anglo-American; Job Obtainment - self; Country - Puerto Rico
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 8: Employment Probability - Highly Skilled Occupation

	Coefficient	S. E.	Odds Ratio	S. E.
Family Migratory Experience				
Mother	0.0763	0.709	1.0793	0.765
Father	-0.0481	0.684	0.9531	0.652
Siblings	0.2313	0.467	1.2603	0.589
Children	-0.9355*	0.562	0.3924*	0.221
Extended Family	-0.2635	0.600	0.7684	0.461
Relations in the United States				
Contact to Relatives	0.1400	0.429	1.1503	0.493
<i>Coethnics</i>				
workplace only	-1.1289	0.858	0.3234	0.278
friendship	1.2592*	0.731	3.5225*	2.574
very close	1.0260	0.686	2.7899	1.913
<i>Anglo-Americans</i>				
workplace only	0.4944	0.885	1.6396	1.451
friendship	0.9858	0.926	2.6801	2.482
very close	1.8375*	1.018	6.2811*	6.394
<i>Latinos</i>				
workplace only	3.0638**	1.232	21.4080**	26.368
friendship	1.2761	1.264	3.5827	4.528
very close	2.1806*	1.278	8.8517*	11.316
Individual Migratory Experience				
Number of US Trips	0.1075	0.150	1.1135	0.167
US Experience	0.0043**	0.002	1.0043**	0.002
Age at Migration	-0.0110	0.024	0.9890	0.023
Language				
<i>Ability</i>				
no speak, some understand	-0.7030	1.150	0.4951	0.569
no speak, much understand	-0.3651	1.368	0.6941	0.950
speak and understand some	0.2961	1.334	1.3446	1.794
speak and understand much	-0.1111	1.413	0.8949	1.265
<i>Use at Home</i>				
sometimes	-0.1798	0.463	0.8354	0.387
often	-0.8653	0.652	0.4209	0.275
always	0.3164	0.838	1.3722	1.150
<i>Use at Work</i>				
sometimes	1.2755	0.848	3.5806	3.038
often	1.9441**	0.936	6.9872**	6.541
always	2.2907**	0.972	9.8822**	9.601
Employment Characteristics				
Years of Education	0.3124	0.072	1.3667	0.099
<i>Race of Employer</i>				
other minority	1.9589***	0.758	7.0913***	5.376
same country	3.2786***	0.688	26.5380***	18.269
other Latino	0.0160	0.617	1.0161	0.627
other	-0.5492	0.552	0.5774	0.319
<i>Job Obtainment</i>				
Relatives	-1.7631***	0.569	0.1715***	0.098
Friends	-1.3547***	0.462	0.2580***	0.119
Other	-1.0713	0.673	0.3425	0.231
Countries				
Dominican Republic	1.1141**	0.631	3.0468**	1.923
Nicaragua	2.1680***	0.681	8.7404***	5.953
Costa Rica	0.7891	0.733	2.2015	1.613
Guatemala	1.0161	1.049	2.7625	2.897
El Salvador				
Constant	-10.1081***	2.181	0.0000***	0.000
<hr/>				
Demographic and Time Period Controls	Yes		Yes	
Observations	463		463	
Pseudo R^2	0.2707		0.2707	

Reference Categories: English Ability - neither speaks, nor understands;
Use at Home - never; Use at Work - never; Relations - no relations with the respective group; Race of Employer - Anglo-American; Job Obtainment - self; Country - Puerto Rico
* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

6.3 Robustness Check

It has been mentioned before that some variables have missing values and as a result, the number of observations is reduced in the regression analysis compared to the whole sample under study. There might be different reasons for missing data, which will not be further analyzed here. However, the results of this missing data impact heavily on the analysis performed. There is a loss of observations, a loss of explanatory power of the model and there might be a bias if the missing values are not random (Acock, 2014).

To check whether the results of the analysis with the reduced sample is biased by any of these missing values, an imputation analysis is performed. Imputation means that the missing values are predicted and an analysis is performed with these predicted values (Acock, 2014). It is assumed that the missing values are missing at random (MAR). This implies that the missingness of the variables can be explained by the other variables in the model. This assumption cannot be tested and has to be taken as given (Acock, 2014).

This procedure works in three steps. First, new datasets are created with the imputed values with each data set having different imputed values. Then, the analysis is performed on these imputed data sets. Finally, the results of these analyses are pooled together and the parameter estimates will be the mean of the imputed data sets. It has to be made clear that the imputed values for the missing observations are consistent with the observed data and thus, the imputation allows for using all the available information for the estimation of the relationship (Acock, 2014). If the results of the imputation do not differ largely from the analysis of the initial data set, it is assumed that the missing values do not represent a bias to the results.

To impute the variables, a multivariate normal regression is used. Even though not all variables follow a normal distribution, it has been found that the results of this imputation method are robust to nonnormality, even if variables are categorical (Demitras, Freels and Yucel, 2008). Due to the assumption of the multivariate normal distribution for all variables, impossible values are calculated for all categorical variables. According to Acock (2014), there are two ways to handle this limitation. On the one hand, the imputed values could be restricted or rounded so that they are in line with the original data set. On the other hand, they could just be included in the analysis as they are. The second option is considered to be the better option, even though it seems counterintuitive. For this analysis, 50 new data sets are created. Following Acock (2014), early applications of

imputation used only five imputed data sets. However, it is recommended to use at least 20 imputed data sets, but the more data sets are calculated, the higher the efficiency of the imputation. The imputed data sets have 42,840 observations of which the mean will be used to estimate the relationships of the analysis.

The imputed results for the three models do not yield the same results as the analysis with the original data set. For the analysis concerning the employment probability, additional 70 observations are included, but only the coefficient for the Dominican Republic turns significant. This suggests that for this part of the analysis, missing values impact only little on the results obtained. This finding might be driven by the fact that most indicators used in this analysis have only been augmented to a small extent (see Figure 15 in Appendix A). When analyzing the wage rate, between 25 and 65 observations are added. In the first model formulation the data set is extended less and the results also vary only little compared to the original results. In the second and third specification, the results vary more when the augmented data is used. Surprisingly, many variables lose significance. These results show a larger degree of variation, possibly because the variables used here have been augmented significantly, especially those concerning the relations in the US. The last part of the analysis concerns the occupational status. In this analysis, 94 observations are added. The most remarkable result is the inclusion of El Salvador in the analysis. When using the original data set, El Salvador was omitted from the analysis due to little data.

What becomes clear is that for those variables where significantly more information is available, i.e. language indicators and relations in the US, the results change. That suggests that missing values do have an impact on the results and a larger observational number would increase the efficiency of the model. Especially, since many variables lose significance due to the data augmentation the results obtained are likely to overestimate the importance of social networks and ties for the labor market integration of migrants. The detailed results of the imputation can be seen in Appendix B.

6.4 Discussion

To put the regression results into perspective, the absolute value of the change in wages using the predicted values from the logarithmic wage regression will be analyzed. The average hourly wage is 11.91 Dollar and the average hours worked per week are 42.75 hours in this data set. Taken these two values together the average monthly earning of an individual in this data set is 2,036.61 Dollars. Table 9 shows the increase in the hourly wage and the monthly wage differential if the dummy variables turn to 1 or one unit of analysis is added. Looking at the table, the increase in the hourly wage seems small, but per month the change in income varies between an increase of 732.04 Dollars and a decrease of 462.12 Dollars. As it has been shown before, especially the use of English at work, being friends or very close with both Anglo-Americans or people from the same country of origin and having siblings or someone in the extended family with migratory experience is associated with a significant and comparably large increase in wages. It is surprising that using English at home and being able to understand some English is associated with a decrease in wages.

Unfortunately, the findings need to be interpreted with caution. Due to many potential biases, the small sample size and many missing values, the results might not be representative and do not reflect the experience of migrants from the region to the US. This might also explain some of the differences compared to previous research and the sometimes surprising results. However, some of the results might also be driven by the model specification, the indicators used and the individual under study.

Table 9: Value of Social Capital

Variable	Coefficient	Change in Wage (%)	Value of Change	Monthly Income Differential
Family Migratory Experience				
Siblings	0.1249	13.30	1.58	270.76
Extended Family	0.1835	20.15	2.40	410.20
Relations in the US				
<i>Coethnics</i>				
Very Close	0.1608	17.45	2.08	355.24
<i>Anglo-Americans</i>				
friendship	0.2262	25.38	3.02	516.64
very close	0.2720	31.26	3.72	636.36
Individual Migratory Experience				
US Experience	0.0025	0.25	0.03	5.08
Language				
<i>Ability</i>				
no speak, some understand	-0.2575	-22.70	-2.70	-462.12
<i>Use at Home</i>				
always	-0.2529	-22.35	-2.66	-454.88
<i>Use at Work</i>				
often	0.3072	35.96	4.28	732.04
always	0.2266	25.43	3.03	517.68
Employment Characteristics				
<i>Race of Employer</i>				
same country	0.2197	24.57	2.93	500.16

The first hypothesis in this thesis was concerned with the importance of the family migratory experience. It was assumed that having family ties in the US is associated with a better labor market position. The Social Network Theory suggests that migrants are able to use these ties and transform them into a valuable asset during their migration. The network provides information, knowledge and assistance that can be converted into a better labor market position. Family ties were categorized as strong ties that impact directly on the integration process of the migrants. This result was partly confirmed in this thesis. While having children, siblings or someone in the extended family with migratory experience was found to be beneficial for the employment probability and the wage rate, it was unrelated to the probability of being employed in a skilled or highly skilled occupation. Prior studies have generally noted the importance of having migrants in the family for the labor market success. Massey (1987) and Greenwell et al. (1997) both found a significant impact of family ties, in particular of having a parent with migratory experience, on the wage rate and the employment probability. The same holds for the

study of Phillips and Massey (1999). These results are in contrary to those of Massey et al. (2016) who found that having parents or siblings with migratory experience is not important for the wage obtained in the US. It is therefore likely that there is an impact of family ties on the labor market success, but that the type of family tie is also important. Depending on the setting, different ties might be important for the labor market success and it cannot be concluded generally that all kinds of family ties are beneficial. The impact on the probability of being in a skilled or highly skilled occupation has not yet been studied extensively and might be interesting for future research.

The second hypothesis was concerned with relations between migrants, former migrants and non-migrants in the US. The regression analysis showed that especially relations to coethnics and Anglo-Americans were important for the wage rate, whereas for the probability of being in a highly skilled occupation relations to Latinos at work or very close relationships with Latinos are important as well. These results are confirmed in previous research. Aguilera and Massey (2003) found that the social capital obtained through these relationships impacts indirectly on how the job is obtained and directly on the job search technique. Portes and Bach (1980) focus on the different segments of the labor market that migrants select into and take having relations with Anglo-Americans as a sign of being employed in the primary labor market. This finding is supported by the Immigrant Assimilation Theory. Being related to Anglo-Americans is a sign for a higher degree of assimilation in the mainstream which is associated with a better labor market position. However, it seems that the convertibility of the social capital obtained by having relations with either Anglo-Americans, coethnics or other Latinos is dependent on the individual's occupational status. This can be taken as further evidence for a segmented assimilation into the labor market by migrants.

Third, the importance of the employment characteristics and especially the race of the employer was hypothesized as being important for the wage rate and the occupational status. The Social Network Theory suggests that employers consider information obtained through network connections as more reliable and more stable. As a result, a higher wage can be offered to the migrants due to less uncertainty and a higher degree of enforceable trust. This hypothesis was confirmed since being employed by someone from the same country or from another minority was found to be positively related to the wage rate and the occupational status. This result further supports the segmented assimilation of

immigrants in the US labor market. It seems to be more beneficial to integrate into a segment of the labor market where the employer shares the same ethnicity or forms part of another minority group than integrate into the mainstream labor market. Portes and Bach (1980) found contradictory results in their study. For Mexican and Cuban migrants in Los Angeles being employed by members of any minority was associated with a significant income loss. A possible explanation for the income difference by the race of employer is discrimination. It is possible that employers hire their workers not only based on their qualifications, but also on their specific tastes. As a result, a lower wage is paid for Latinos workers in Anglo-American owned firms compared to minority group owned firms based on a higher level of discrimination. This relationship cannot be tested here but represents an important issue for further research.

The next hypothesis sought to determine the impact of language skill. In theory, language ability is considered a sign of integration in the society. It enables the individual to take part in the society and be in contact with natives. Moreover, it facilitates the integration into the labor market since English is needed in most occupations. Previous research confirms these theoretical considerations and a positive impact of language ability on employability, wage and occupational status has been found in many studies (e.g. Akresh et al. (2014) and Chiswick and Miller (2010)). However, this thesis has been unable to confirm this relationship in all dimensions of language ability and use. It can be confirmed that especially the use of English at work is beneficial for the labor market outcome and that the use at home, indicating a larger degree of assimilation and integration, has been found to be positive as well. Compared to the other coefficients in the analysis, the impact is rather small, which confirms Akresh et al.'s hypothesis (2014) that language use is not enough to explain the whole process of integration. The contradictory results that English ability is hindering for a successful labor market integration are somewhat surprising. The results may be explained by the fact that there are many possible biases limiting the analysis which might impact on the sign of the coefficients. Further research should be undertaken to distinguish between different dimensions of language ability and use to investigate this relationship.

With respect to the fifth hypothesis, it was found that the individual migratory experience is positively related to all three labor market outcomes under study. Individual migratory experience entails both the time spent in the US and the number of trips taken.

The Immigrant Assimilation Theory describes the time in the US as crucial for the integration into society. Especially structural assimilation, i.e. minority groups being in contact with the majority group, is a sign of the maturity of the assimilation process (Nee and Alba, 2012). Prior studies have noted also the importance of the time spent in the US for assimilation and integration. Massey et al. (2016) found that the number of trips to the US has a positive impact on the hourly wage of Mexican migrants in the US. Chiswick and Miller (2010) hypothesized that the occupational status changes with the time spent in the US and find supporting evidence for this relationship. In this thesis, the results on the relationship between the time spent in the US and the labor market outcome, seems to depend on the occupational status. While the time in the US is significant for highly skilled occupations, only the number of trips is significant for the skilled occupation. This might be related to the promotion structure in the US that rewards continuous time in the US higher than being in the US several times.

Lastly, it was hypothesized that the countries under study have different labor market outcomes. The background section highlighted the differences between the countries from the region and their different routes to the United States. These differences might impact on the employability, the hourly wage and the occupational status. The results of this thesis confirm that there are significant differences between the countries under studies. However, for those who are employed in highly skilled occupations, there are only limited differences between the countries. This might be explained by the fact that among highly skilled individuals the country of origin loses importance and other characteristics have a higher power to explain the labor market outcome. Further work is required to develop a full picture of the country differences. Since the data set used here can only give a small insight into these differences, a larger sample or representative data from the countries could enhance the understanding of the different migratory experiences from the countries under study.

7 Conclusion

The purpose of this thesis was to determine the impact of social indicators on the labor market performance of Central American and Caribbean migrants in the US. More specifically, the focus lay on the family and individual migratory history, the relations in the United States, employment characteristics and language ability. Additionally, the difference between five different countries from the region was assessed. Three different labor market indicators were considered to get a more detailed picture of the labor market integration of the immigrants.

Because the labor market integration is considered to be the first step towards assimilation and integration into the host society, it is important to detect the determinants of this process. Especially because migrants from Central America and the Caribbean often find themselves in a vulnerable position in the host country, their integration should be of importance for the public.

This thesis has shown the importance of social ties in the United States for the labor market integration of immigrants. In line with the Immigrant Assimilation Theory, the Social Network Theory and previous research, this thesis strengthened the support for the importance of relationships between different population groups and individuals for a successful integration of migrants in the labor market.

Having migrants in the close and extended family and having spent a longer time in the United States were found to increase the labor market success in all dimensions studied. Moreover, being in touch with coethnics, other Latinos and Anglo-Americans indicating that both assimilation into the mainstream and integration in sub-societies can be a source of capital that can be translated into a better labor market position. The same holds for being employed by someone from the same country suggesting that being from the same country is a special form of social capital. If a higher language proficiency is beneficial or hindering for the labor market position was not fully determined in this thesis; however, there is evidence that at least using English at work regularly can lead to a higher wage and a higher-level occupation. The relevance of using cross-country studies is clearly supported by the current findings. It has been shown that there are differences between the countries that could not be studied using a different research design.

The monetary value of the social capital of the migrants has been found to be substantial. Having an increase in average earnings of 270 Dollars per month because a sibling has

been on a migratory trip before, can mean a significant improvement in the standard of living of this migrant. The same holds for having an employer from Latin America which is associated with an even higher average increase in monthly earnings. This should be taken as evidence that the social network of the migrant and the segment of the labor market a migrant selects into is of importance in the formulation of public policy.

Further research is required to get a better understanding of the country differences in the migratory experience and the labor market success of migrants from the region. Using a larger data set or using representative data about migration from Central America and the Caribbean could shed light on the path that migrants take until they arrive in the US and try to find a job there. Moreover, other social indicators like the integration in social clubs or the participation in the community, would contribute to a better understanding of the circumstances of migration. Considerably more work will need to be done to determine the impact of discrimination in the labor market for Latin American and Caribbean migrants in the US. This study was not able to determine in which way discrimination in the labor market impacts the outcome, but it is likely that it does have an impact on the labor market position of all individuals included here.

The Latin American Migration Project will be further extended in the future so that a broader and more representative picture of the migratory patterns and the integration of migrants from the region can be drawn. More information on the countries under study here would help to establish a greater degree of accuracy on the specific migratory circumstances in each country and the labor market experience in the United States.

References

- Acock, A. (2014). *A Gentle Introduction to Stata*. College Station, Tex.: Stata Press
- Aguilera, M.B. (2002). The impact of social capital on labor force participation: Evidence from the 2000 Social Capital Benchmark Survey. *Social Science Quarterly*, vol. 83, no. 3, pp. 853–874
- Aguilera, M.B. (2003). The impact of the worker: How social capital and human capital influence the job tenure of formerly undocumented Mexican immigrants. *Sociological Inquiry*, vol. 73, no. 1, pp. 52–83
- Aguilera, M.B. and Massey, D.S. (2003). Social capital and the wages of Mexican migrants: New hypotheses and tests. *Social Forces*, vol. 82, no. 2, pp. 671–701
- Akresh, I.R. (2008). Occupational trajectories of legal US immigrants: Downgrading and recovery. *Population and Development Review*, vol. 34, no. 3, pp. 435–456
- Akresh, I.R., Massey, D.S., and Frank, R. (2014). Beyond English proficiency: Rethinking immigrant integration. *Social Science Research*, vol. 45, pp. 200–210
- Bergad, L.W. and Klein, H.S. (2010). *Hispanics in the United States: A demographic, social, and economic history, 1980-2005*. Cambridge University Press
- Bourdieu, P. and Wacquant, L.J. (1992). *An invitation to reflexive sociology*. University of Chicago press
- Castles, S. and Miller, M.J. (2009). *The age of migration: International population movements in the modern world*. Palgrave Macmillan, 4 edn.
- Chiswick, B.R. and Miller, P.W. (2010). Occupational language requirements and the value of English in the US labor market. *Journal of Population Economics*, vol. 23, no. 1, pp. 353–372
- Cobo, S.D., Giorguli, S.E., and Alba, F. (2010). Occupational mobility among returned migrants in Latin America: A comparative analysis. *The Annals of the American Academy of Political and Social Science*, vol. 630, no. 1, pp. 245–268

- Connor, P. and Massey, D.S. (2010). Economic outcomes among Latino migrants to Spain and the United States: Differences by source region and legal status. *International Migration Review*, vol. 44, no. 4, pp. 802–829
- Demirtas, H., Freels, S.A., and Yucel, R.M. (2008). Plausibility of multivariate normality assumption when multiply imputing non-Gaussian continuous outcomes: a simulation assessment. *Journal of Statistical Computation and Simulation*, vol. 78, no. 1, pp. 69–84
- Donato, K.M., Durand, J., and Massey, D.S. (1992). Changing conditions in the US labor market. *Population Research and Policy Review*, vol. 11, no. 2, pp. 93–115
- Donato, K.M., Hiskey, J., Durand, J., and Massey, D.S. (2010). Migration in the Americas: Mexico and Latin America in Comparative Context. *The ANNALS of the American Academy of Political and Social Science*, vol. 666, no. 1, pp. 6–17
- Dovidio, J.F., Gluszek, A., John, M.S., Dittmann, R., and Lagunes, P. (2010). Understanding bias toward Latinos: Discrimination, dimensions of difference, and experience of exclusion. *Journal of Social Issues*, vol. 66, no. 1, pp. 59–78
- Dunlevy, J.A. (1991). On the settlement patterns of recent Caribbean and Latin immigrants to the United States. *Growth and Change*, vol. 22, no. 1, pp. 54–67
- Durand, J. and Massey, D.S. (2010). New world orders: Continuities and changes in Latin American migration. *The Annals of the American Academy of Political and Social Science*, vol. 630, no. 1, pp. 20–52
- Espinosa, K. and Massey, D. (1997). Undocumented migration and the quantity and quality of social capital. *Soziale Welt. Sonderband*, vol. 12
- Flores, N.Y. (2010). Assessing Human Capital Transferability into the US labor market among Latino immigrants to the United States. *The ANNALS of the American Academy of Political and Social Science*, vol. 630, no. 1, pp. 196–204
- Frank, R., Akresh, I.R., and Lu, B. (2010). Latino immigrants and the US racial order: How and where do they fit in? *American Sociological Review*, vol. 75, no. 3, pp. 378–401
- Gindling, T.H. (2009). South-South migration: The impact of Nicaraguan immigrants on earnings, inequality and poverty in Costa Rica. *World Development*, vol. 37, no. 1, pp. 116–126

- Gordon, M.M. (1964). *Assimilation in American life*. Oxford University Press
- Granovetter, P.M. (1973). The Strength of Weak Ties. *American Journal of Sociology*
- Greenwell, L., Valdez, R.B., and DaVanzo, J. (1997). Social ties, wages, and gender in a study of Salvadorean and Pilipino immigrants in Los Angeles. *Social Science Quarterly*, pp. 559–577
- Gujarati, D. and Porter, D. (2009). *Basic Econometrics*. Boston : McGrawHill, 5 edn.
- Hamilton, N. and Chinchilla, N.S. (1991). Central American migration: A framework for analysis. *Latin American Research Review*, vol. 26, no. 1, pp. 75–110
- Latin American Migration Project (2018). Research. Available at: <http://lamp.opr.princeton.edu/> [Accessed 29.03.2018]
- Lesser, G. and Batalova, J. (2017). Central American Immigrants in the United States. *Washington: Migration Policy Institute*
- Loury, G. (1977). A dynamic theory of racial income differences. *Women, Minorities, and Employment Discrimination*, vol. 153, pp. 86–153
- Massey, D.S. (1981). Dimensions of the New Immigration to the United States and the Prospects for Assimilation. *Annual Review of Sociology*, vol. 7, no. 1, pp. 57–85
- Massey, D.S. (1986). The settlement process among Mexican migrants to the United States. *American Sociological Review*, pp. 670–684
- Massey, D.S. (1987). Do undocumented migrants earn lower wages than legal immigrants? New evidence from Mexico. *International Migration Review*, pp. 236–274
- Massey, D.S. (2012). Hispanics in Twenty-First Century America. *Contemporary Sociology*, vol. 41, no. 5, pp. 602–606
- Massey, D.S., Alarcón, R., Durand, J., and González, H. (1990). *Return to Aztlan: The social process of international migration from western Mexico*, vol. 1. University of California Press

- Massey, D.S., Arango, J., Hugo, G., Kouaouci, A., and Pellegrino, A. (1999). *Worlds in Motion: Understanding International Migration at the End of the Millennium: Understanding International Migration at the End of the Millennium*. Clarendon Press
- Massey, D.S., Arango, J., Hugo, G., Kouaouci, A., Pellegrino, A., and Taylor, J.E. (1994). An evaluation of international migration theory: The North American case. *Population and Development Review*, pp. 699–751
- Massey, D.S. and Aysa-Lastra, M. (2011). Social capital and international migration from Latin America. *International Journal of Population Research*, vol. 2011
- Massey, D.S., Durand, J., and Pren, K.A. (2016). The precarious position of Latino immigrants in the United States: A comparative analysis of ethnosurvey data. *The ANNALS of the American Academy of Political and Social Science*, vol. 666, no. 1, pp. 91–109
- Massey, D.S. and Sana, M. (2003). Patterns of US migration from Mexico, the Caribbean, and Central America. *Migraciones Internacionales*, vol. 2, no. 2, pp. 05–39
- Migration Policy Institute (2018). Countries of Birth for U.S. Immigrants, 1960-Present. Available at <https://www.migrationpolicy.org/programs/data-hub/charts/immigrants-countries-birth-over-time> [Accessed: 19.03.2018]
- National Academies of Sciences, Engineering, and Medicine (2015). *The Integration of Immigrants into American Society*. Washington, DC: The National Academies Press
- Nee, V. and Alba, R. (2012). Rethinking assimilation theory for a new era of immigration. In: *The New Immigration*, pp. 49–80. Routledge
- O’Neil, K., Hamilton, K., and Papademetriou, D. (2005). Migration in the Americas. *A paper prepared for the Policy Analysis and Research Programme of the Global Commission on International Migration*. *Global Commission on International Migration*
- Pew Research Center (2018). Statistical Portrait of Hispanics in the United States, 1980-2015. Available at <http://www.pewhispanic.org/2017/09/18/facts-on-u-s-latinos-trend-data/> [Accessed: 28.03.2018]

- Phillips, J.A. and Massey, D.S. (1999). The new labor market: Immigrants and wages after IRCA. *Demography*, vol. 36, no. 2, pp. 233–246
- Portes, A. (1997). Immigration Theory for a New Century: Some Problems and Opportunities. *International Migration Review*, pp. 799–825
- Portes, A. and Bach, R.L. (1980). Immigrant earnings: Cuban and Mexican immigrants in the United States. *International Migration Review*, pp. 315–341
- Portes, A. and Sensenbrenner, J. (1993). Embeddedness and immigration: Notes on the social determinants of economic action. *American Journal of Sociology*, vol. 98, no. 6, pp. 1320–1350
- Schacter, D.L. (1999). The seven sins of memory: Insights from psychology and cognitive neuroscience. *American Psychologist*, vol. 54, no. 3, p. 182
- Walker, R. and Hannan, M. (1989). Dynamic settlement processes: The case of US immigration. *The Professional Geographer*, vol. 41, no. 2, pp. 172–183
- Waters, M.C. and Jiménez, T.R. (2005). Assessing immigrant assimilation: New empirical and theoretical challenges. *Annual Review of Sociology*, vol. 31, pp. 105–125
- Zhou, M. and Portes, A. (2012). The new second generation: Segmented assimilation and its variants. In: *The New Immigration*, pp. 99–116. Routledge

Appendix A: Descriptives

Table 10: Overview Previous Research

Author	Data Set	Countries Included	Aim	Dependent Variable	Independent Variables	Findings
Greenwell, Burciaga Valdez & DaVanzo (1997)	pilot survey of immigrants in two LA communities in 1991	El Salvador and the Philippeans	how do migrants find their jobs in the host society	employment status, wage	social ties, language skills, education, demographic controls	strong social ties affect employment status and wages; the effects differ by gender
Brown & Sanders (1981)	n/a	n/a	n/a	n/a	n/a	access to social networks leading to good jobs
Massey (1987)	MMP	Mexico	impact of undocumented status on labor market position	labor force participation	US experience, family migration history, documentation, social ties, demographic controls	having social tie to family member increases wage rates among immigrants
Aguilera (2003)	Legalized Population Survey 1992	Mexico	employment matching processes of formerly undocumented immigrants	job tenure	employment characteristics, human capital controls, demographic controls, social capital indicators	acquiring employment is a social process and use of social capital is positively related with job tenure
Massey, Durand & Pren (2016)	MMP and LAMP	Mexico, Costa Rica, Colombia, Dominican Republic, Ecuador, El Salvador, Guatemala, Nicaragua, Peru, Puerto Rico	impact of undocumented status on wage rates	wage	legal status, demographic controls, family migratory experience, social ties and relationships	social capital connections have no effect on earnings; getting a job through an acquaintance is associated with lower wages
Portes & Bach (1980)	samples of immigrants interviewed point of arrival in the United States during 1973 and 1976	Cuba and Mexico	the determinants of earnings among two groups of recent immigrants	income	demographic controls, employment characteristics, family characteristics, social relationships	Structural characteristics of the sector where immigrants work represent a major independent source of variation on earnings; ethnicity of co-workers and race of employer are negatively related to income

Note: n/a - cannot be determined

Table 10 - continued: Overview Previous Research

Author	Data Set	Countries Included	Aim	Dependent Variable	Independent Variables	Findings
Aguilera & Massey (2003)	MMP	Mexico	influence of network ties on wages and the circumstances under which it assumes importance in the determination of migrant earnings	job search technique, sector of employment and hourly wage	near family ties, far family ties and friendship ties, demographic controls, migratory experience, occupation	Social capital has both direct and indirect effects on migrant wages; indirectly: how a job was obtained, whether it is in the formal sector; directly: having friends and relatives with migratory experience improves the efficiency and effectiveness of the job search to yield higher wages
Donato, Durand & Massey (1992)	MMP	Mexico	the effect of the Immigration Reform and Control Act (IRCA) on migrants' wages	wages, hours worked, terms of employment	labor market experience, demographic controls, migratory experience, family migratory experience	Family connections in the US raises wages, hours of work and total monthly income
Philipps & Massey (1999)	MMP	Mexico	the effect of the Immigration Reform and Control Act (IRCA) on migrants' wages	wage	documentation, family migratory experience, social ties, employment characteristics, demographic controls	Social capital played a modest role in determining U.S. wage rates and it became increasingly important
Flores (2010)	MMP and LAMP	Guatemala, Mexico, Costa Rica, and Nicaragua	transferability of education	occupational skill	education, migratory experience, legal status, demographic controls	intercountry differences in the ability of the immigrants to translate educational attainments into occupational outcomes
Dunlevy (1991)	INS for intended residence	Haiti, Dominican Republic, Cuba, Peru, Guatemala, El Salvador, Honduras, Colombia, Guyana, Mexico, Jamaica	predict the US state of destination for immigrants in 1987	intended residency state, settlement patterns	stock of each country's immigrants already resident in the state, each state's average income, urbanization, population size and other state characteristics	the size of the migrant stock is the most important predictor of immigrant location

Table 10 - continued: Overview Previous Research

Author	Data Set	Countries Included	Aim	Dependent Variable	Independent Variables	Findings
Walker & Hannan (1989)	n/a	n/a	pooled cross-section time-series model for 11 nationality groups across 50 US metropolitan areas from 1970 through 1979	concentration of migrants	income, employment, migrant stock, and lagged migration	strong evidence of a friends and family effect that varied over time and across countries
Massey (1986)	representative samples from four Mexican communities	Mexico	examination of process of integration and settlement among Mexican migrants	probability of US settlement	personal ties, economic integration	Mexican migrants are generally not well connected to U.S. society; new migrants have few social relations with U.S. groups, experienced migrants report extensive connections to people both inside and outside the Hispanic enclave
Akresh, Massey & Frank (2014)	New Immigrant Survey (NIS)	n/a	language ability and cultural and social assimilation	self-reported language ability	demographic controls, region of origin, migratory experience, occupation, weak social ties	social assimilation is determined by pre-migration characteristics and language ability; cultural assimilation is associated with pre-migration habits
Chiswick & Miller (2008)	2000 US Census Public Use MicroData Sample	n/a	earnings premium for immigrants who are proficient in English	income	English proficiency, demographic controls, labor market experience	Earnings increase with the respondent's proficiency in English, with the English proficiency required for the occupation, and when those with high levels of proficiency work in jobs requiring English-language skills

Note: n/a - cannot be determined

Table 11: Shares of the Categorical Variables

Categorical Variable	Share	Frequency
<i>Ability</i>		
neither speak, nor understand	15.83	129
no speak, some understand	21.23	173
no speak, much understand	13.25	108
speak and understand some	29.57	241
speak and understand much	20.12	164
<i>Use at Home</i>		
never	67.12	543
sometimes	22.74	184
often	6.06	49
always	4.08	33
<i>Use at Work</i>		
never	26.80	149
sometimes	37.59	209
often	17.99	100
always	17.63	98
<i>Relations with Coethnics</i>		
no relationship	10.95	61
workplace only	17.06	59
friendship	40.93	228
very close	31.06	173
<i>Relations with Anglo-Americans</i>		
no relationship	17.53	98
workplace only	41.50	232
friendship	20.93	117
very close	20.04	112
<i>Relations with Latinos</i>		
no relationship	6.38	34
workplace only	23.56	125
friendship	37.71	201
very close	32.46	173
<i>Race of Employer</i>		
Anglo-American	56.73	291
other minority	4.87	25
same country	8.58	44
other Latino	11.70	60
other	18.13	93
<i>Job Obtainment</i>		
Self	28.62	160
Relatives	23.97	134
Friends	39.18	219
Other	8.23	46

Information for English use at work, relations to Anglo-Americans, Latinos and Coethnics, how the job was obtained and race of employer only for those employed.

Table 12: Summary Statistics for Costa Rica and the Dominican Republic

Variables	<i>Costa Rica</i>					<i>Dominican Republic</i>				
	Mean	Min.	Max.	Std. Dev.	Obs.	Mean	Min.	Max.	Std. Dev.	Obs.
<i>Dependent Variables</i>										
Employment	0.63	0	1	0.48	189	0.72	0	1	0.45	150
Log. Wage	2.18	0.22	6.73	0.73	119	2.00	0.00	3.30	0.62	108
Occupational Status	1.62	1	3	0.69	119	1.80	1	3	0.67	108
<i>Independent Variables</i>										
<i>Family Migratory Experience</i>										
Mother	0.15	0	1	0.36	187	0.39	0	1	0.49	142
Father	0.11	0	1	0.31	187	0.23	0	1	0.42	146
Siblings	0.49	0	1	0.50	188	0.68	0	1	0.47	145
Children	0.12	0	1	0.33	189	0.21	0	1	0.41	150
Extended Family	0.76	0	1	0.43	189	0.95	0	1	0.21	150
<i>Relations in the United States</i>										
Contact to Relatives	0.52	0	1	0.50	187	0.69	0	1	0.47	147
Coethnics	2.30	1	5	0.97	119	2.28	1	5	0.89	106
Anglo-Americans	1.87	1	5	1.12	118	2.45	1	5	1.71	108
Latinos	2.11	1	5	1.06	119	2.39	1	5	1.08	108
<i>Individual Migratory Experience</i>										
Number of US Trips	1.83	1	13	1.71	189	1.34	1	11	1.12	150
US Experience	63.66	0	384	73.24	189	149.39	2	61	105.88	150
Age at Migration	33.70	18	61	10.72	189	34.50	19	64	11.36	150
<i>Language</i>										
Ability	3.01	1	5	1.28	188	3.02	1	5	1.27	44
Use at Home	1.55	1	4	0.87	185	1.31	1	4	0.61	144
Use at Work	2.26	1	4	1.00	119	2.06	1	4	0.93	108
<i>Employment Characteristics</i>										
Years of Education	8.17	1	16	3.52	187	10.10	0	20	4.57	147
Race of Employer						2.49	1	5	1.75	98
Job Obtainment	2.37	1	4	0.95	119	2.39	1	4	0.91	108
<i>Control Variables</i>										
Sex	0.84	0	1	0.37	189	0.70	0	1	0.46	150
Marital Status	1.35	1	4	0.80	188	1.63	1	4	0.99	150
Year of Migration	1991.81	1940	2003	9.86	189	1986	1950	2000.00	9.17	150

Information for English Use at work, relations to Anglo-Americans, Latinos and Coethnics, how the job was obtained and race of employer only for those employed.

Table 13: Summary Statistics for El Salvador and Guatemala

Variables	<i>El Salvador</i>					<i>Guatemala</i>				
	Mean	Min.	Max.	Std. Dev.	Obs.	Mean	Min.	Max.	Std. Dev.	Obs.
<i>Dependent Variables</i>										
Employment	0.45	0	1	0.50	65	0.58	0	1	0.50	73
Log. Wage	1.94	0.92	2.71	0.49	29	1.87	0.69	5.70	0.80	42
Occupational Status	1.90	1	3	0.56	29	1.62	1	3	0.58	42
<i>Independent Variables</i>										
<i>Family Migratory Experience</i>										
Mother	0.05	0	1	0.22	60	0.04	0	1	0.20	73
Father	0.08	0	1	0.27	64	0.06	0	1	0.23	72
Siblings	0.35	0	1	0.48	62	0.49	0	1	0.50	73
Children	0.05	0	1	0.21	65	0.05	0	1	0.23	73
Extended Family	0.77	0	1	0.42	65	0.86	0	1	0.35	73
<i>Relations in the United States</i>										
Contact to Relatives	0.75	0	1	0.44	59	0.62	0	1	0.49	71
Coethnics	2.41	1	5	1.05	27	1.98	1	5	0.80	40
Anglo-Americans	2.43	1	5	1.83	28	2.18	1	5	1.30	40
Latinos					0	2.00	1	5	0.96	40
<i>Individual Migratory Experience</i>										
Number of US Trips	1.66	1	12	1.61	65	35.23	18	58	9.34	73
US Experience	93.11	6	372	82.33	65	57.39	1	234	57.04	71
Age at Migration	32.95	18	60	10.27	65	35.23	18	58	9.34	73
<i>Language</i>										
Ability	2.93	1	5	1.61	54	2.75	1	5	1.52	73
Use at Home	1.40	1	3	0.57	53	1.23	1	4	0.61	73
Use at Work	2.04	1	4	0.98	27	2.15	1	4	1.26	41
<i>Employment Characteristics</i>										
Years of Education	6.24	0	19	4.61	63	7.71	0	17	4.36	73
Race of Employer	1.86	1	5	1.32	22	2.42	1	5	1.75	33
Job Obtainment	2.07	1	3	0.77	28	2.43	1	4	0.99	42
<i>Control Variables</i>										
Sex	0.83	0	1	0.38	65	0.93	0	1	0.25	73
Marital Status	1.38	1	4	0.82	65	1.15	1	3	0.49	73
Year of Migration	1992.75	1970	2007	10.39	65	1994.36	1970	2004	8.08	73

Information for English Use at work, relations to Anglo-Americans, Latinos and Coethnics, how the job was obtained and race of employer only for those employed.

Table 14: Summary Statistics for Nicaragua and Puerto Rico

Variables	<i>Nicaragua</i>					<i>Puerto Rico</i>				
	Mean	Min.	Max.	Std. Dev.	Obs.	Mean	Min.	Max.	Std. Dev.	Obs.
<i>Dependent Variables</i>										
Employment	0.65	0	1	0.48	139	0.80	0	1	0.40	218
Log. Wage	2.25	0.81	5.99	0.82	91	1.56	-0.99	3.60	0.83	175
Occupational Status	2.02	1	3	0.82	91	1.67	1	3	0.75	175
<i>Independent Variables</i>										
<i>Family Migratory Experience</i>										
Mother	0.09	0	1	0.29	139	0.19	0	1	0.39	218
Father	0.06	0	1	0.23	139	0.14	0	1	0.35	210
Siblings	0.62	0	1	0.49	139	0.61	0	1	0.49	218
Children	0.23	0	1	0.42	139	0.16	0	1	0.36	218
Extended Family	0.72	0	1	0.45	139	0.83	0	1	0.38	218
<i>Relations in the United States</i>										
Contact to Relatives	0.60	0	1	0.49	136	0.41	0	1	0.49	218
Coethnics	2.24	1	5	0.89	91	2.94	1	5	1.35	174
Anglo-Americans	2.43	1	5	1.61	90	2.94	1	5	1.35	174
Latinos	1.95	1	5	1.00	91	2.57	1	5	0.91	175
<i>Individual Migratory Experience</i>										
Number of US Trips	1.27	1	5	0.64	139	154.64	0	736	153.07	218
US Experience	112.02	1	540	99.31	139	1.32	1	5	0.72	218
Age at Migration	35.73	18	62	10.85	139	27.96	18	62	9.63	218
<i>Language</i>										
Ability	2.78	1	5	1.52	138	3.08	1	5	1.19	218
Use at Home	1.47	1	4	0.84	136	1.61	1	4	0.84	218
Use at Work	2.12	1	4	1.06	89	2.53	1	4	1.03	172
<i>Employment Characteristics</i>										
Years of Education	10.41	0	16	4.47	139	9.66	0	18	4.49	218
Race of Employer	2.96	1	5	1.52	83	2.10	1	5	1.65	165
Job Obtainment	2.12	1	4	0.96	89	2.20	1	4	1.03	173
<i>Control Variables</i>										
Sex	0.75	0	1	0.44	139	0.59	0	1	0.49	218
Marital Status	1.50	1	4	0.88	139	1.96	1	4	1.02	218
Year of Migration	1989.24	1933	2002	10.54	139	1969.92	1934	1999	15.39	218

Information for English Use at work, relations to Anglo-Americans, Latinos and Coethnics, how the job was obtained and race of employer only for those employed.

Table 15: Occupational Groups

Occupational Status	Occupations
Unskilled	<p>Unskilled workers in food, beverage and tobacco production, textile and leather production, wood and paper production or printing, metallurgical or automotive production or repair, ceramic, tile, glass or other mineral production, construction, electrical equipment, electronics and telecommunications installation and repair, chemical, petroleum, oil, and plastics production, other including those in unspecified industry (includes unspecified helpers or trainees)</p> <p>Agricultural workers, husbandry workers, forestry workers, workers in both agriculture and husbandry, fishery or marine workers</p> <p>Domestic services workers, caregivers, drivers, gardeners, doorman and other service workers in private households, homemaker</p> <p>Doormen, concierges, elevator operators, bellboys, cleaning workers, gardeners, movers, dishwashers, other personal service workers</p> <p>Ambulatory salespeople: toys, lottery tickets, household goods, paper, other inedible items, other ambulatory workers, self-employed day laborers</p>
Skilled	<p>Workers in food, beverage and tobacco production, including cooks in establishments, mine, quarry and well, textile and leather production, wood and paper production or printing, metal production and treatment, vehicle, machinery and equipment repair, ceramic, tile, glass or other mineral production, construction, installation, maintenance and finishing, electrical equipment, electronics and telecommunications installation and repair, hemical, petroleum, oil, and plastics production</p> <p>Equipment Operators in textile and leather production, metallurgical or automotive production or repair, construction, wood and paper production or printing, other operators of heavy machinery and equipment</p> <p>Retail workers, sales people, distributors or demonstrators, including delivery workers, record-keepers for stores and warehouses</p> <p>Foremen, overseers and other control persons of agricultural, husbandry or fishery activities</p> <p>Industrial vehicle operators/drivers, truck drivers, land-transport drivers, other conductors, drivers, pilots, operator of animal driven cart</p> <p>Secretaries, typists, data entry, recorders, receptionists, generic office workers and public servants when no further specification was provided, other administrative service workers who perform routine or simple tasks, travel agent, interviewers, party planners, tour guides, event organizers, caregivers in institutions, Innkeepers, bartenders, waiters, flight attendants, barbers, hair stylists, laundrerers, pressers, and other clothes-cleaning service workers, telephone and telegraph operators, workers in car rental, and other movable rental establishments, morticians, funeral home workers, cashiers, collectors, ticket sellers, postal and messenger workers</p>
Highly Skilled	<p>Professor in universities and other institutions of higher learning, in grammar school or the equivalent and in preschool, other educational workers</p> <p>Physicians, dentists, optometrists, nutritionists, professional nurses, medical technicians</p> <p>Painters, sculptors, illustrators, designers, choreographers, writers, critics, journalists, editors, other artists</p> <p>Supervisors in food, beverage and tobacco production, health, social services, education and justice services, accounting, finance, human resources, library services, public administration, restaurant, store, and hotel services, construction, installation, maintenance and finishing, chemical, petroleum, oil, and plastics production, culture and recreation services, other department supervisors</p> <p>Technicians, social scientists, lawyers, and psychologists, economists, business administrators, CPAs, sales agents or representatives, brokers, insurance and real estate agents, auctioneers, security personnel, police officers, watchmen, firefighters, armed forces personnel, air-transport pilots, architects; civil, chemical, industrial engineers, specialized directors, managers and administrators, directors of political, union and civil organizations, small and medium-sized factory or service establishments owners, entrepreneurs, managers, and directors, merchants in retail establishments, retail business owners and owners of small businesses</p>

Table 16: Overview on Imputed Values

Variable	Observations per Imputation			
	Complete	Incomplete	Imputed	Total
Family Migratory Experience				
Mother	819	15	15	834
Father	818	16	16	834
Siblings	825	9	9	834
Relations in the US				
Contacted Relatives	818	16	16	834
<i>Coethnics</i>				
workplace only	788	46	46	834
friendship	788	46	46	834
very close	788	46	46	834
<i>Anglo-Americans</i>				
workplace only	779	55	55	834
friendship	779	55	55	834
very close	779	55	55	834
<i>Latinos</i>				
workplace only	733	101	101	834
friendship	733	101	101	834
very close	733	101	101	834
Individual Migratory Experience				
US Experience	832	2	2	834
Years of Education	827	7	7	834
Language				
<i>Ability</i>				
no speak, some understand	815	19	19	834
no speak, much understand	815	19	19	834
speak and understand some	815	19	19	834
speak and understand much	815	19	19	834
<i>Use at Home</i>				
sometimes	809	25	25	834
often	809	25	25	834
always	809	25	25	834
<i>Use at Work</i>				
sometimes	764	70	70	834
often	764	70	70	834
always	764	70	70	834
Employment Characteristics				
<i>Race of Employer</i>				
other minority	677	157	157	834
same country	677	157	157	834
other Latino	677	157	157	834
other	677	157	157	834
<i>Job Obtainment</i>				
Relatives	775	59	59	834
Friends	775	59	59	834
Other	775	59	59	834
Controls				
Marital Status				
Widow	833	1	1	834
Divorced	833	1	1	834
Never Married	833	1	1	834

Appendix B: Regressions

Table 17: Employment Probability - Occupational Status Specification 1

	Skilled		Highly Skilled	
	Coefficient	S. E.	Coefficient	S. E.
Family Migratory Experience				
Mother	-0.1738	0.384	0.1712	0.481
Father	0.1894	0.423	-0.2087	0.483
Siblings	-0.0594	0.238	-0.0733	0.332
Children	0.1084	0.283	-0.8128*	0.474
Extended Family	0.4995	0.304	0.2915	0.451
Relations in the United States				
Contact to Relatives	0.0574	0.221	-0.0742	0.334
Individual Migratory Experience				
Number of US Trips	0.3128***	0.102	0.3170**	0.124
US Experience	0.0016	0.001	0.0056***	0.002
Age at Migration	-0.0285**	0.012	-0.0170	0.018
Language				
<i>Ability</i>				
no speak, some understand	-0.4350	0.379	0.4327	0.830
no speak, much understand	-0.3697	0.419	1.3716	0.894
speak and understand some	-0.4167	0.394	1.4670*	0.820
speak and understand much	-0.2763	0.483	2.0786**	0.873
<i>Use at Home</i>				
sometimes	0.7745***	0.283	-0.0211	0.363
often	0.4877	0.458	-0.3324	0.541
always	0.7802	0.578	0.5188	0.729
Employment Characteristics				
Years of Education	0.0651**	0.027	0.2471***	0.051
<i>Countries</i>				
Dominican Republic	1.2045***	0.377	0.1900	0.483
Nicaragua	0.7589*	0.392	1.5953***	0.462
Costa Rica	0.3886	0.366	0.0881	0.516
Guatemala	1.0530**	0.481	-0.1498***	0.914
El Salvador	2.1726***	0.637	2.6493***	1.022
Constant	-1.4173*	0.734	-7.2922	1.352
<hr/>				
Demographic and Time Period Controls	Yes		Yes	
Observations	539		539	
Pseudo R^2	0.1832		0.1832	

Reference Categories: English Ability - neither speaks, nor understands;
 Use at Home - never; Use at Work - never; Relations - no relations with the respective group; Race of Employer - Anglo-American; Job Obtainment - self; Country - Puerto Rico
 * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

Table 18: Employment Probability - Occupational Status Specification 2

	Skilled		Highly Skilled	
	Coefficient	S. E.	Coefficient	S. E.
Relations in the United States				
<i>Coethnics</i>				
workplace only	-0.5335	0.439	-1.3893*	0.781
friendship	-0.2232	0.422	0.9046	0.673
very close	0.2262	0.417	0.6612	0.613
<i>Anglo-Americans</i>				
workplace only	-0.3605	0.365	0.5009	0.848
friendship	-0.5483	0.403	0.9766	0.909
very close	0.5336	0.449	1.7524	0.951
<i>Latinos</i>				
workplace only	0.7415	0.508	2.9274**	1.198
friendship	0.0335	0.480	1.0964	1.218
very close	0.1350	0.525	2.2484*	1.234
Language				
<i>Ability</i>				
no speak, some understand	-0.4220	0.428	-0.5608	1.215
no speak, much understand	-0.6134	0.533	-0.3159	1.459
speak and understand some	-0.5243	0.502	0.3638	1.381
speak and understand much	-0.7311	0.596	0.1943	1.454
<i>Use at Home</i>				
sometimes	0.7119**	0.307	-0.1775	0.436
often	0.3292	0.459	-0.3201	0.610
always	0.5143	0.680	0.2703	0.783
<i>Use at Work</i>				
sometimes	0.5318	0.356	1.4674*	0.793
often	1.1025**	0.466	2.0522**	0.866
always	1.2587**	0.512	2.4862***	0.930
Employment Characteristics				
Years of Education	0.0499*	0.030	0.2866***	0.066
<i>Race of Employer</i>				
other minority	0.3884	0.617	1.8837***	0.733
same country	1.5372***	0.527	3.4685***	0.656
other Latino	0.1241	0.375	0.0063	0.595
other	0.0700	0.308	-0.5973	0.534
<i>Job Obtainment</i>				
Relatives	-0.0803	0.326	-1.8730***	0.531
Friends	-0.3212	0.303	-1.4436***	0.451
Other	0.0138	0.422	-0.9987	0.630
<i>Countries</i>				
Dominican Republic	1.5681***	0.395	1.4693**	0.579
Nicaragua	1.1629**	0.483	2.4005***	0.666
Costa Rica	0.8343*	0.444	0.8008	0.698
Guatemala	1.9016***	0.600	1.1681	0.970
El Salvador				
Constant	-1.3151	0.834	-8.8458***	1.851
Demographic and Time Period Controls	Yes		Yes	
Observations	482		482	
Pseudo R^2	0.2436		0.2436	

Reference Categories: English Ability - neither speaks, nor understands;

Use at Home - never; Use at Work - never; Relations - no relations with the respective group; Race of Employer - Anglo-American; Job Obtainment - self; Country - Puerto Rico

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

Table 19: Regression with Imputed Values - Employment Probability

	Coefficient	S. E.
Family Migratory Experience		
Mother	0.0368	0.308
Father	0.5327	0.366
Siblings	0.6759***	0.185
Children	0.5338**	0.271
Extended Family	0.3155	0.221
Relations in the United States		
Contact to Relatives	-0.0964	0.178
Individual Migratory Experience		
Number of US Trips	-0.0676	0.053
US Experience	0.0055***	0.001
Age at Migration	0.0065	0.009
Language		
<i>Ability</i>		
no speak, some understand	0.8507***	0.269
no speak, much understand	0.6362**	0.324
speak and understand some	0.6144**	0.279
speak and understand much	0.0045	0.339
<i>Use at Home</i>		
sometimes	0.2372	0.223
often	0.0931	0.426
always	1.1574*	0.614
Employment Characteristics		
Years of Education	0.0052	0.021
Countries		
Dominican Republic	-0.8804***	0.329
Nicaragua	-0.9835***	0.340
Costa Rica	-0.7172**	0.316
Guatemala	-0.9186**	0.394
El Salvador	-1.5130***	0.410
Constant	-1.3580**	0.552
Demographic and Time Period Controls	Yes	
Observations	834	

Reference Categories: English Ability - neither speaks, nor understands; Use at Home - never; Relations - no relations with the respective group; Country - Puerto Rico

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

Table 20: Regression with Imputed Values - Logarithmic Wage

	(1)		(2)		(3)	
	Coefficient	S. E.	Coefficient	S. E.	Coefficient	S. E.
Family Migratory Experience						
Mother	0.1161	0.109			0.0998	0.120
Father	-0.0900	0.105			-0.0448	0.115
Siblings	0.1303**	0.053			0.1114*	0.058
Children	0.0192	0.071			0.0179	0.076
Extended Family	0.2400***	0.067			0.2031***	0.072
Relations in the United States						
Contact to Relatives	-0.0394	0.053			-0.0250	0.057
<i>Coethnics</i>						
workplace only			0.0195	0.112	0.0969	0.107
friendship			0.0448	0.102	0.0501	0.093
very close			0.2002**	0.101	0.1517*	0.090
<i>Anglo-Americans</i>						
workplace only			0.0752	0.095	0.1240	0.086
friendship			0.2059*	0.109	0.2164**	0.102
very close			0.1724	0.121	0.2160*	0.112
<i>Latinos</i>						
workplace only			0.2617	0.118	0.1890	0.116
friendship			0.1254	0.110	0.0947	0.111
very close			0.1781	0.124	0.1520	0.120
Individual Migratory Experience						
Number of US Trips	-0.0214	0.023			-0.0214	0.024
US Experience	0.0027***	0.000			0.0027***	0.000
Age at Migration	-0.0032	0.003			-0.0021	0.003
Language						
<i>Ability</i>						
no speak, some understand	-0.1704	0.114	-0.2233*	0.135	-0.2576**	0.128
no speak, much understand	-0.0675	0.123	-0.0186	0.155	-0.1697	0.146
speak and understand some	-0.0632	0.121	-0.1373	0.146	-0.2410*	0.146
speak and understand much	0.1381	0.133	0.0290	0.169	-0.1608	0.175
<i>Use at Home</i>						
sometimes	0.0980	0.070	0.0639	0.084	0.0426	0.078
often	-0.0198	0.099	0.157	0.1183	-0.0777	0.110
always	-0.2704**	0.134	-0.2314	0.172	-0.3452	0.167
<i>Use at Work</i>						
sometimes			0.1463	0.097	0.0909	0.088
often			0.3923***	0.131	0.2707**	0.119
always			0.3750**	0.187	0.3051*	0.168
Employment Characteristics						
Years of Education	0.0248***	0.007	0.0172	0.008	0.0198**	0.008
<i>Race of Employer</i>						
other minority			0.0786	0.137	0.1107	0.119
same country			0.2890***	0.109	0.1856*	0.101
other Latino			0.0113	0.112	0.0741	0.106
other			-0.0966	0.091	-0.0434	0.087
<i>Job Obtainment</i>						
Relatives			-0.1149	0.081	-0.0128	0.075
Friends			-0.1014	0.082	-0.05116	0.077
Other			-0.0355	0.113	-0.0080	0.101
Countries						
Dominican Republic	0.0814	0.081	0.3771***	0.089	0.1604*	0.090
Nicaragua	0.4231***	0.105	0.5900***	0.1280	0.4875***	0.120
Costa Rica	0.4835***	0.105	0.4587***	0.115	0.5081***	0.112
Guatemala	0.2500**	0.143	0.2476*	0.1412	0.2726*	0.141
El Salvador	0.34515***	0.124				
Constant	-0.0288	0.225	0.6969***	0.120	-0.0288	0.225
Demographic and Time Period Controls						
Observations	Yes		Yes		Yes	
	564		528		528	
R^2	0.4310		0.3561		0.4728	
Adjusted R^2	0.4001		0.3060		0.4212	

Reference Categories: English Ability - neither speaks, nor understands; Use at Home - never;

Use at Work - never; Relations - no relations with the respective group;

Race of Employer - Anglo-American; Job Obtainment - self; Country - Puerto Rico

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

Table 21: Regression with Imputed Values - Occupational Status

	Skilled		Highly Skilled	
	Coefficient	S. E.	Coefficient	S. E.
Family Migratory Experience				
Mother	-0.0035	0.387	0.2248	0.618
Father	0.1068	0.413	-0.3118	0.577
Siblings	-0.1405	0.251	-0.2136	0.421
Children	0.0354	0.294	-0.7817	0.510
Extended Family	0.3657	0.325	0.0569	0.555
Relations in the United States				
Contact to Relatives	0.1598	0.230	0.1993	0.386
<i>Coethnics</i>				
workplace only	-0.1251	0.448	-0.4388	0.792
friendship	0.0477	0.437	1.1940*	0.714
very close	0.3849	0.429	1.0433	0.672
<i>Anglo-Americans</i>				
workplace only	-0.1085	0.340	0.1360	0.801
friendship	-0.3694	0.378	0.9557	0.818
very close	0.9083**	0.441	1.5785*	0.920
<i>Latinos</i>				
workplace only	0.5771	0.512	2.9238**	1.223
friendship	-0.1621	0.491	1.3048	1.232
very close	-0.1310	0.532	2.4233*	1.268
Individual Migratory Experience				
Number of US Trips	0.2567**	0.104	0.1315	0.138
US Experience	0.0015	0.001	0.0051***	0.002
Age at Migration	-0.0273**	0.012	0.0006	0.022
Language				
<i>Ability</i>				
no speak, some understand	-0.4527	0.399	-0.1562	1.134
no speak, much understand	-0.5274	0.507	0.0994	1.292
speak and understand some	-0.5886	0.496	0.4557	1.216
speak and understand much	-0.8863	0.594	0.3585	1.344
<i>Use at Home</i>				
sometimes	0.8328***	0.299	-0.2678	0.439
often	0.3917	0.462	-0.7099	0.611
always	0.6918	0.658	0.1497	0.844
<i>Use at Work</i>				
sometimes	0.2064	0.350	1.5923**	0.680
often	0.6826	0.456	1.9733***	0.758
always	0.8985*	0.471	2.5543***	0.821
Employment Characteristics				
Years of Education	0.0583**	0.029	0.3205***	0.063
<i>Race of Employer</i>				
other minority	0.4543	0.528	1.7781**	0.726
same country	1.3928***	0.461	2.8954***	0.592
other Latino	0.2966	0.375	-0.1762	0.594
other	0.0236	0.314	-0.6706	0.517
<i>Job Obtainment</i>				
Relatives	-0.2319	0.319	-1.4088***	0.491
Friends	-0.2711	0.294	-0.9957**	0.436
Other	-0.1143	0.406	-0.8756	0.674
<i>Countries</i>				
Dominican Republic	1.5531***	0.414	1.1192*	0.580
Nicaragua	1.0253**	0.476	2.2448***	0.649
Costa Rica	0.8104*	0.450	0.9112	0.676
Guatemala	1.6149***	0.576	0.4303	1.043
El Salvador	2.5549***	0.679	3.5971***	1.266
Constant	-1.549705	1.00247	-11.4528***	2.283
Demographic and Time Period Controls	Yes		Yes	
Observations	557		557	

Reference Categories: English Ability - neither speaks, nor understands; Use at Home - never; Use at Work - never; Relations - no relations with the respective group; Race of Employer - Anglo-American; Job Obtainment - self; Country - Puerto Rico
 * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$