

Lund University
Department of Economic History
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Employment outcomes of Mexican return migrants in 1997

Maria Cherednichenko

maria_cherednichenko@yahoo.com

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Supervisor:

Jonas Helgertz

Abstract:

Temporary migration to advanced countries from developing ones and its effects on host countries are important issues in contemporary demographic studies. Economic performance of return migrants from the U.S. in Mexico has been studied from the viewpoint of financial gains from working abroad. This paper looks into an impact of human capital accumulated through working in the U.S. on economic outcomes of Mexican returnees in terms of their income and type of employment in Mexico. The results have shown that working experience in the U.S. has a small negative association with an income of Mexican returnees, and this is consistent for migrants from all Mexican states. Further, age group 19-65 is more severely affected by the work experience abroad than Mexican returnees aged 30-65. Also, returnees from stagnate regions are better off than their counterparts in advanced states. Then, migrants aged 30-65 and currently living in developed regions do not always have higher earnings than their counterparts in less developed states, however for an 19-65 age group living in a advanced region has higher earnings. Further, return migrants are more likely to be self-employed, become employers with employees or work in a non-paid business or family farm than to be employees. However, they are also more likely to be laborers or farm workers than employees in Mexico.

Keywords: Mexico; return migrants, income; employment type.

Table of contents

1. Introduction	4
1.1 Research problem	4
1.2 Aim and scope	7
1.3 Outline of the thesis	7
2. Background.....	7
2.1 Previous research.....	7
2.2 Theoretical background	10
2.3 Hypothesis	14
3. Data.....	16
3.1. Source material.....	16
3.2. Sample.....	17
4. Methods.....	18
4.1. Statistical model	19
4.2. Definition of variables.....	20
5. Empirical analysis	23
5.1. Statistical results	23
5.2. Discussion.....	26
6. Conclusion.....	35
References:	39
Appendix	41

1. Introduction

1.1 Research problem

Nowadays, migration from less developed to advanced countries is a big issue in demographic, development and human rights studies, and it affects social policies in both host and sending countries¹. The demographic scholars are interested in salient characteristics of this phenomenon, namely reasons for migration, socio-economic consequences of population movement, assimilation of immigrants and also, in effects of out-migration on economic development of sending countries and return migration². In particular, migration from less developed countries to advanced ones has been of high interest due to cultural and economic effects that large number of immigrants produces on receiving countries. Governments of these states are interested primarily in limited temporary labor migration as this allows filling labor-market needs for a certain period of time³, however a large number of these immigrants eventually stays permanently. This leads to problems of social integration and economic assimilation of migrants and there have been proposed a number of theories and made a considerable amount of research on these topics⁴.

Even though migration is widely studied nowadays, there are not enough studies on return migration and in particular, there is little work on human capital accumulation among return migrants, their impact on economic growth of a home country and their economic activities upon arrival back home. It is not clear through what mechanisms migration experience and skills acquired abroad affect economic performance of returnees at home. The impact of such an experience is likely to be ambiguous. On one hand, while being outside a country, migrants certainly lose some part of their social network, connections and specific for their home country skills. This may affect negatively their future perspectives to integrate economically when they are back⁵. On the other hand, migrants may gain insight into effective management, start-ups techniques and up-to-date technologies while living in a more developed country. Therefore, more research is needed on micro level effects of migration experience on economic outcomes of returnees in developing countries. This paper is looking into a relationship between working experience in a developed country and economic performance of return migrants upon their arrival back home.

¹ Massey et al. 1993.

² Portes 2009.

³ Newland 2009.

⁴ See, e.g., Constant et al. 2009, Portes et al.2008.

⁵ Saarela and Finnäs 2009.

The effect of out-migration on sending countries that are usually developing countries has also been investigated and both positive and negative outcomes have been analyzed. On one hand developing countries become able to enjoy lower unemployment rate, increased remittances, and have an opportunity to adopt manufacturing technologies from advanced nations⁶. On the other hand scholars stress the problem of “brain drain” and report reliance of local governments on remittances and thus their reluctance to promote economic growth in developing countries. By and large, macro aspects of out-migration have ambiguous effects on sending countries, though there is not much research in this area. Mainly, the phenomenon of emigration has been studied through its relation with economic impact on home countries that is produced by remittances⁷. Additionally, from sociological view point there has been research on a transmission of social norms from a host country to a sending country through social networks and kin⁸. Return migration, in turn, has not yet enjoyed much attention, though some of its aspects, namely reasons to return, have been examined. The rationale for a lack of attention to this side of a migration process may be that most of immigrants from developing countries are assumed to stay in more developed countries once they arrived there⁹. Moreover, in many countries the recorded data usually concern the number of arriving and leaving citizens, and records on individuals’ movements back and forth between a home country and other countries are lacking.

On a micro level of studies the phenomenon of return migrants is of particular interest since migration experience let people from less developed countries learn new skills, absorb new ideas, not to mention increase their earnings¹⁰. While working in a company in a developed country migrants are able to learn the most up-to-date techniques and methods of running a business, developing and launching new products. That is, while staying in developed countries, immigrants invest in their human capital through having a work experience there and then they may be able to apply new skills and gained knowledge upon arrival back home. A similar intuition is behind human capital accumulation of those, who come to study in advanced countries, and their investments in human capital are even more straightforward. International students in economically advanced countries have a unique opportunity to learn the most modern theories, methods and techniques that are applied to working practices in the most successful companies and organizations worldwide. After coming back return migrants may be able to apply the knowledge they gained while being abroad in their home countries, and given

⁶ Newland 2009.

⁷ See De Haas 2005.

⁸ See Levitt 1998.

⁹ Gmelch 1980.

¹⁰ Skeldon 2010.

favorable economic conditions at home this may promote economic and social development there. Thus returning migrants may play a role of “innovating and transnationally operating entrepreneurs, investors in their home countries and participate actively in social and political life”¹¹. Therefore, temporary migration to more developed countries may contribute to economic growth and promote technological and social innovations in sending developing countries.

Obviously, potential gains from migration differ between various activities that immigrants are involved in, ranging from studies to working in informal sector of economy. That is, the largest benefits for the human capital of a migrant are probably those derived from direct investments in human capital, namely studying, though work experience in a high-tech company is also beneficial. In addition, even a job position in a relatively less advanced sector in a developed country may still be beneficial for an immigrant as learned business ethics and management styles maybe useful for successful economic performance at home. Also, companies that are considered as less modern in developed countries may still apply production techniques that are advanced for developing countries. Then, depending on a position in a company migrants may gain more specific human capital that may not be easily applied in other circumstances. For example, being employed as a production manager may lead to different degree of transferability of human capital investments in comparison to that of a lawyer¹². Further, not every experience is possible to transfer to migrants’ home country due to a gap in economic development between countries. Thus advanced management techniques and skills gained during migrations may not be easily applied at home if the development gap between a host and home countries is substantial¹³. Also, a lack of infrastructure and macroeconomic stability, combined with the presence of red tape, corruption are usually assumed to be serious obstacles in a way of economic development in less developed countries and they may prevent positive spillovers from migration experience on an economic activity of return migrants¹⁴. Nevertheless, on a micro level there still may be found positive effects of migration experience on economic performance in home country. The rationale for this may be that returnees accumulate transferable skills like risk-neutrality, self-motivation, and initiative and thus may become more able to deal with economic distortions in their home countries.

¹¹ De Haas 2005; Saxenian 2006.

¹² Portes 2009, 16.

¹³ Portes 2009, 15.

¹⁴ Portes 2009, 17.

1.2 Aim and scope

The aim of this thesis is to look into spillovers from migration experience on economic outcomes of return migrants in their home country. The primary focus of the paper is a relationship between employment perspectives and earnings of return migrants and their work experience in a developed country. They are expected to have better economic outcomes in comparison to their counterparts that did not work outside the country. That is, this paper seeks to evaluate the association between migration experience and economic performance, which includes employment status and income level in home country of a return emigrant. The mechanism, which accounts for favorable economic outcome of returnees at home, is a human capital accumulation of immigrants in a host country.

A developing country considered in this work is Mexico and a developed country, where migrants are assumed to gain human capital through working, is the U.S.A. These countries are geographical neighbors, but their levels of economic development differ considerably. Therefore, USA is the country of destination where temporary immigrants from Mexico are expected to learn valuable and transferable skills, which they later use for their economic performance at home.

The scope of this paper is constrained by a human capital accumulation of an immigrant. Monetary gains of a temporary migrant, who receives salary in a hard currency and increase his or her consumption, while being in the U.S. are not considered here. That is, economic performance of returnees at home, namely in Mexico, is the main interest of this work. In addition, this study looks into one year period, thus it is not possible to see the dynamics of returnees' employment and income at home.

1.3 Outline of the thesis

The remainder of the thesis is organized as follows. The next section includes previous studies' analysis and theoretical foundations that together lead to hypotheses that will be checked. Then, the third and fourth sections are dedicated to data and methods description and empirical results are presented in the fifth part. The last section concludes.

2. Background

2.1 Previous research

Firstly, the economic perspectives of return migrants at home have been studied in a number of countries. In Saarela and Finnäs (2009) Finnish return migrants from Sweden are examined over a time period 1970-1990. The results show that return migrants have poorer opportunities to be

employed upon arrival home and this is positively correlated with time spent abroad. The plausible reason may be that they have difficulties in readapting into Finnish society as they have lost necessary social network while being abroad. Furthermore, a social and economic effect of temporary migration on returnees' economic activity in Bolivia has been examined in Jones (2011). The scholar shows that households with return migrants have higher consumption level and are more likely to have family business with bigger sales and have more cultivable land than those with active emigrants abroad or without emigrants. This indicates that there is a positive association between migration experience and successful household's economic performance. Additionally, in Lianos and Pseiridis (2009) the focus is on employment outcomes of returnees in Bosnia-Herzegovina, Bulgaria, Georgia, Kyrgyz Republic, Romania, and Tajikistan. The results indicate that an amount of sent remittances, acquisition of qualification abroad and time spent abroad positively affect a propensity of becoming an employee rather than becoming self-employed. Further, a thorough study of Swedish return migrants, in particular engineers, is conducted in Grönberg (2003) where the scholar examines effects of accumulated human capital in the USA on Swedish economic development from the end of nineteenth to the middle of the twentieth century. The author finds significant positive effects of migration experience on Swedish industrial economy. Finally, Chinese, Indian and Taiwanese returnees from the USA and their impact on a local development are considered in Saxenian (2006). The scholar depicts cross-cultural and cross-regional social networks that are created by international students in the USA. Also, the author analyzes human capital accumulations, practical experience in modern American companies that returnees use in their home countries. Conclusions of this study stress the importance of returnees' human capital for the economic development of their countries of origin.

Mexican migration to the USA has kept attention of scholars for a long time and there is a plenty of research on this topic. The studies look into causes of migration, choice of destination regions, socio-economic characteristics of immigrants, their assimilation in the U.S., remittances and their impact on economic performance of households in Mexico, and return migration. Here only studies that are relevant for this thesis are analyzed. First of all, a thorough analysis of Mexican migration has been carried out in Massey (1987) where the author looks into causes of migration, its different types and characteristics. The scholar concludes that a propensity to migrate increases during a greater household dependency, in a presence of previous migration experience in a family and a lack of access to productive resources. The probability of coming back, in turn, increases with an age of an immigrant and ownership of property in Mexico, however it diminishes with a length of stay in the U.S.A. Then, an impact of U.S. legislation on the flows of Mexican immigrants is examined in Durand et al. (1999). One of the results

indicates that a strict migration policy against illegal immigrants has led to a decrease in return among undocumented Mexican workers. Additionally, Fussell (2004) looks into different sources of Mexican migration, namely immigrants from urban and rural areas, and their social characteristics. The results reveal that a major part of Mexican immigrants comes from central rural regions and possesses little human capital, however there appears a growing number of career oriented immigrants from interior urban areas.

By looking into determinants of return migration to Mexico, Lindstrom (1996) examines an association between economic characteristics of immigrants' origin and their propensity to return. The results indicate that there is a positive relationship between a length of stay in the U.S.A and economic opportunities to invest in communities of origin. Also, the scholar contends that workers from economically stagnant areas of Mexico migrate to the U.S.A so as to cover the costs of housing and maintain family; while those from more advanced regions aim at accumulating financial resources for future investments and capitalization of their businesses. Then, health and wealth of return Mexican migrants are studied in Wong and Gonzalez-Gonzalez (2010). The authors have shown that young female and old male returnees have more wealth than non-immigrants and domestic migrants. However there are found substantial health differentials for two sexes and female return migrants appear to be sicker. Also, the results indicate that return migrants have more children living in the USA than their counterparts with no international migration experience, thus the former are more likely to receive financial help from abroad. Additionally, Ruiz-Tagle and Wong (2009) examine attributes of returnees in comparison to those Mexican migrants that stay permanently in the U.S. The study shows that a length of stay and being single are negatively related to the probability of return, while more years of education increase propensity to come back, though at a decreasing rate. These results are similar to those found in a study by Reagan and Olsen (2000) on young immigrants of different origins in the U.S.A, which shows that having a college degree is positively correlated with a propensity to return. Assuming that return to higher education is lower in the U.S. than in its less developed neighbors, this explains why immigrants return. Also, the authors point at a negative association between a propensity to return and a length of stay, arrival in the U.S at a young age and having a high potential wage in the U.S. Finally, factors that lead to productive investments of remittances and immigrants' savings are considered in Durand et al. (1996). A high level of human capital, presence of potential labor resource at home and residential property are primary factors that determine spending on production in a home country rather than on consumption or housing.

Finally, some authors have focused on a selection mechanism of labor emigrants and those of them who eventually return. A thorough study in this area is performed by Borjas and

Bratsberg (1996) on immigrants in the U.S.A. They have discovered that a selection of immigrants as well as returnees among them is related to an economic background of a region that immigrants come from. That is, immigrants from regions with low rates of return to skills are positively selected, while returnees among them are selected negatively. The opposite works for immigrants from regions with high rates of return to skills, they are negatively selected, and those of them who eventually go back, are selected positively. The reliability of this hypothesis is tested in a study on Finnish return immigrants in Rooth and Saarela (2007). Taking into account that Finland is a developed country, the rate of return to human capital appears to be high there. The results of this study have confirmed the theory and shown that Finnish labor migrants to Sweden are negatively selected, whilst return migrants among them are positively selected.

2.2 Theoretical background

There has been a considerable amount of research on migration issues, in particular on factors that induce people from less developed countries to move to economically advanced ones. The main theories that are proposed to explain migration flows include neoclassical theory, new economic theory, dual labor market theory and world systems theory¹⁵. The first one is based on employment and wage differentials and migration costs as the main conditions for migration. In contrast to this, in the second theory migration is considered as a decision that a household takes so as to minimize risks to family income. Finally, the last two theories focus on modern industrial economies and globalization processes respectively as primary causes of migration.

Return migration has various definitions in a literature, some scholars include a conception of seasonal migration back and forth (circular migration), others do not differentiate between coming back for a short time period or for holidays (reemigration)¹⁶ and permanently. However a proper definition of return migration includes condition of considerable time spent abroad, being at home and an intention to remain in a home country. For example, Klinthäll argues that return migration is “a change of residence from the destination of the original emigration back to the region of origin¹⁷”. A similar definition of migration is given by Ghosh where he defines return migration as “the process whereby people return to their country or place of origin after a significant period in another country or region¹⁸”. However the latter definition does not include an intention to stay permanently in a home country. Further, based on a length of time spent at home the following typology of returnees is proposed. First of all, there are

¹⁵ Massey et al. 1993.

¹⁶ Gmelch 1980, 136.

¹⁷ Klinthäll 2003, 50.

¹⁸ Ghosh 2000, 8.

short-term return migrants that stay at home for holidays or a family event. Secondly, there are seasonal returns that due to a nature of their work come back for several months and then emigrate again. Then, there are temporary returns that remain in a home country for a significant period, but retain an intention to emigrate again. Finally, there are permanent returnees that resettle in a home country and have no intention to move outside it anymore¹⁹. This paper focuses on the last type of return migrants, though it is difficult to establish whether returnees are staying permanently at home basing on a cross-sectional data.

Another classification of return migrants is based on the initial intention of immigrants and its eventual outcome. This typology was suggested by Bovenkerk, and then elaborated by Gmelch and King. Firstly, there are immigrants that have an intention to return and they eventually go back home, then some temporary immigrants move abroad for a specific time period, to study for example, but then they stay there permanently. Thirdly, there are migrants that are planning to stay for good, but have to go back to their home countries. Finally, there are those, who from the beginning plan to settle permanently abroad, and they manage to do so²⁰. Further, in another classification return migration is divided into planned and involuntary. These two types of return migration may have different impacts of individual's economic performance in a home country. Whilst the former is expected and prepared to, in the case of the latter an individual may find it more difficult to readapt to socio-economic environment in his or her home country. Additionally, a classification of return migration that is based on a reason to return is proposed by Cerase. The scholar analyzes two distinct reasons for return migration that may directly impact an economic performance of returnees at home. On one hand an immigrant may consciously decide to return home to maximize his or her utility, if there are more favorable economic conditions for investments or employment at home²¹. These individuals are initially oriented towards temporary migration and seek to transfer ideas and new values to their home countries²². Alternatively, return migration may be a forced decision caused by a failure to succeed in a host country. In both cases immigrants compare their possible economic outcomes in host and home countries and choose to migrate back if their skills are more advantageous in a labor market at home or they have better investment opportunities there. However in the former situation an immigrant is successfully assimilated in a host country, while in the latter he or she is not. Additionally, migration of retirement and conservatism constitute two other groups of return migration based on a reason to return²³. The former does not have any effect on an

¹⁹ Ghosh 2000.

²⁰ Ghosh 2000.

²¹ Saenz and Davila 1992.

²² Klinthäll 2003, 53.

²³ Klinthäll 2003.

economic performance at home, whilst the latter probably implies poor assimilation and unwillingness to learn values of a host society. Consequently, in the latter case migration experience is unlikely to lead to learning of new skills and gaining knowledge. In this study it is not possible to establish if return migration is planned or involuntary, and also, there is no data on the intentions of migrants.

Further, typologies of return migration may be based on a level of development of a country of origin and a host country. Return migration is divided into three groups according to Ghosh (2000). Firstly, there are return migrants that are traveling from less-developed countries to advanced ones. These population flows take place, for example, when Europeans return home from their colonies in Africa, Asia or Central America. Secondly, return migration may occur from developed countries to developing home countries of labor immigrants. This process describes the movement back home of Caribbean migrants from Great Britain and North Africa²⁴. Finally, there are population flows between countries of equal economic status, in particular amongst advanced nations.

There are several economic models that account for return migration. First of all, one of the frameworks that explain a decision to return is Dustmann's model where the scholar points at price levels differentials between host and home countries. In essence an immigrant will benefit from return due to low prices at home and a high earned income abroad. In addition to this view Piore stresses that emotional links to a country of origin increases the propensity of an immigrant to work temporary abroad, but consume more upon arrival home²⁵. When one takes a decision to return, a weight of social links with a country of origin is substantial there. Bovenkerk and King argue that while economic reasons impact to a large extent a decision to emigrate, social and cultural ties are those that are mainly responsible for a decision to return²⁶. Regarding Mexican labor immigrants, Stark and Taylor point at a relative deprivation that immigrants experience abroad. The scholars argue that this low level of consumption in a host country is referred to a social position of an immigrant in his or her home community. Therefore, improvement in a social status upon arrival home increases a propensity to return²⁷.

Reintegration of returned immigrants is analyzed by Cerase and Del Campo and Garmendia. One hypothesis that they put forth is that a returnee with industrialized values, probably coming from a more economically advanced country, will experience great difficulty when readapting to a less-developed country and he or she is likely to induce a social change there. The alternative hypothesis states that a return immigrant that has more traditional values

²⁴ Ghosh 2000.

²⁵ Klinthäll 2003.

²⁶ Klinthäll 2003, 69.

²⁷ Klinthäll 2003, 65.

will not have psychological problems, like stress or depression, during a readaptation process and he or she will not probably introduce innovation or make a social change²⁸. Therefore, personal characteristics of return migrants and their propensity to learn values of a host country have an impact on their readaptation process in a home country. Additionally, social adaptation of return immigrants implies having a new status in a community that is higher than the one they had before migration. Firstly, returnees are expected by their home community to have a better social position as they possess unique knowledge and skills after living abroad. That is, local community treats returnees with a respect and admiration as they are believed to know exclusive facts about other countries, which no one in a community knows. Secondly, returnees themselves exhibit arrogant and superior attitude to their counterparts, who have no migration experience, thereby reinforcing their new model of behavior. Returnees may wear clothes or accessories bought during migration period that distinguish them from local people, who have never been abroad²⁹. Then, returnees are usually unwilling to occupy the same position or be employed in the same sector as they used to before migration. However in their home countries it may be difficult to find a job where returnees' foreign skills may be used and they often run a restaurant, cafe or have another business as accumulated abroad financial resources allow them to become entrepreneurs. These changes in an occupational status and social recognition of migrants' experience lead to an upward socio-economic mobility of returnees at home. That is, returnees possess financial resources to start their own business instead of becoming employees and their local community also expects them to raise their socio-economic status after migration. However opportunities for this mobility vary across countries and cultures. There are cultures that do not allow an individual to get a higher status merely based on earned income. For instance, Asian countries have established dynasties that have high social status in their countries and they limit an upward social mobility of an individual³⁰.

The theory of human capital assumes that educational gains and acquired abroad skills may benefit a home society if there is a need for them. However work abroad is tightly connected with development cycles of a receiving country, but not of a home one, and thus the skills learned abroad may not necessarily match a demand for them in a home country. Then, taking into account a low occupational status of immigrants, they are likely to be assigned to mechanical work tasks that do not lead to any valuable human capital accumulations³¹. Further, human capital may be divided into two parts depending on its transferability. Firstly, there are skills and knowledge that can be used in different circumstances; they do not depreciate with

²⁸ Ghosh 2000.

²⁹ Ghosh 2000.

³⁰ Ghosh 2000.

³¹ Ghosh 2000.

time, and they are not usually affected by an occupational change or a locality change. Secondly, there is a location-specific human capital, which is accumulated and used only in a certain area, that is, it can not be transferred to a new job, country and it may depreciate with time. Also, investments in location-specific human capital increase when an individual stays for long time in a certain place³². Consequently, moving abroad for a substantial time period leads to depreciation of location-specific human capital that is gained at home, while investments in specific skills for a host country begin to grow. Therefore, a longer period of migration results in a greater loss of location-specific human capital of a home country. Then, only transferable knowledge and skills may be used in a home country of a returnee. In addition, migration conditions and economic opportunities at home are important characteristics that affect potential benefits from return migration experience. Returning to urban areas migrants may not find a job that exactly matches their skills and aspirations especially if the difference in industrial development between host and home countries is substantial. However a returnee that comes back to a rural area may contribute considerably to agricultural development of a home country, if he or she has worked in a similar sector abroad³³. Also, a human capital model assumes that individuals migrate so as to maximize their lifetime utility. Then, working abroad migrants may choose a job with the highest wages rather than with greater career opportunities, because they initially decide to travel abroad so as to increase their earnings. Therefore, investments in a human capital stock may not be the main reason for an immigrant to get a job, especially if low socio-economic status of immigrants from developing countries and financial constraints that they experience in a developed country are acknowledged. Thus, working abroad temporary immigrants may occupy those job positions that do not necessarily involve human capital accumulation that is useful in their countries or can be easily transferred.

2.3 Hypothesis

The hypothesis that is tested in this work is that transferable skills learnt by Mexican immigrants in the U.S. improve their economic performance in Mexico, when they return. That is, there is expected to be positive relationship between migration experience and employment status and income level. Though it is not possible to differentiate between social and economic reasons to migrate and return due to data constraints, human capital accumulation through learning new ideas, values and personal development that may be gained through working abroad are a mechanism for a better economic performance of returnees in comparison to their counterparts without international migration experience.

³² Krupka 2004.

³³ Grosh 2000, 25.

To test this hypothesis it is important to consider differences in economic development in the regions where the migrants come from, as they are likely to account for their economic success back home and reasons for migration and return. Firstly, those who previously lived in less economically advanced parts of Mexico are more likely to migrate to the U.S. due to a severe financial hardship. According to the results in the previous studies, those who migrate from such regions are forced to do so by a shortage of financial resources and a need for a family maintenance. Then, when they come back, their economic perspectives will probably be less rosy than those of their countrymen that lived in a more developed region of Mexico before migration. The latter group is expected to possess relatively higher living standards before going abroad and thus they are not constrained to jobs that provide only financial gains. These immigrants are aiming at additional liquid assets for their business development and may choose a job that let them learn management techniques. Thus, immigrants that lived in more developed Mexican regions are likely to have better economic outcomes when they return. Therefore, it is necessary to control for macro economic characteristics of a residence before migration as they are likely to affect economic performance of returnees upon arrival home through circumstances of migration.

Additionally, according to the previous studies poor economic opportunities in stagnant regions lead to positive selection among emigrants, while advanced regions may send less able Mexicans to the U.S. Then, migrants that return also differ in their abilities, that is, returnees from advanced regions are positively selected in comparison to their counterparts, who decided to stay in the U.S. for good. Therefore, returnees from advanced regions are initially less able than their counterparts, who did not migrate, and for this reason that may show worse economic outcomes at home in comparison with Mexicans with no working experience in the U.S. The opposite will hold for returnees from stagnant regions and they are likely to have a better economic performance than their counterparts that did not migrate. Therefore, impact of sending community on potential economic outcomes of returnees is expected to be positive for immigrants that lived in less developed regions, whilst it is negative for immigrants from developed states.

Also, favorable economic environment and sufficient investment opportunities in a current place of residence may lead to a better performance in a labor market of Mexicans living in an advanced region. An economically advanced current place of residence may contribute to better business development and employment and thus Mexicans living there are expected to be better off than those living in less developed states. Therefore, a current place of residence is likely to affect economic performance of returnees and should be controlled for.

Consequently, the following hypotheses are going to be checked. Firstly, returnees from less developed regions are expected to have lower earnings than their counterparts that migrated from economically advanced states. The former group is assumed to migrate due to financial hardship and therefore, they are likely to have a job in the U.S., which primarily provides them with high earnings. In contrast to this, the latter group is more likely to choose a job, where they can learn transferable skills for their business in Mexico. Also, Mexicans that stayed less in the U.S. are expected to have lower earnings than those who stayed abroad for a longer time. This positive effect of a time spent in the U.S. is expected from an assumption that the longer an immigrant stayed in the U.S., the more he or she was exposed to American culture and therefore, more values was able to learn. Additionally, longer period of stay may indicate higher savings upon arrival home. Also, when compared with Mexicans that have no migration experience, earnings of migrants from stagnate regions are expected to be higher, whilst earnings of migrants from advanced regions are likely to be lower than those of Mexicans without migration experience. The first outcome is expected from a positive selection of emigrants and negative selection of their returnees, that is, “worst of the best” from stagnate regions return and they are expected to earn more than their counterparts that did not dare to migrate. The opposite mechanism works in developed regions, where “best of the worst” come back and are expected to have lower income than their counterparts, who did not migrate. Then, Mexicans currently living in economically advanced states are expected to have higher earnings than their counterparts in less developed regions due to more employment and business opportunities in the former group.

Finally, according to the theory that assumes upward socio-economic mobility of return migrants and their higher social status in a community, returnees are expected to be self-employed or run a business more often than their counterparts. That is, Mexicans that have spend some time abroad and thereby acquired new skills and probably lost social networks are more likely to be self-employed, employers with employees or work in a family business upon arrival home.

3. Data

3.1. Source material.

The data used in this thesis are taken from ENADID 1997 (Encuesta Nacional de Dinámica Demográfica), which is a Mexican household survey on demographic dynamics. This is a micro level survey that includes information on each individual in a randomly selected sample of households. The information provided in the survey is collected through interviews, which were

conducted with one member of a household that was at home at a time of the survey. This dataset provides information on individual characteristics, like sex, age, education, employment, income, fertility, contraception methods, health condition, migration experience, area of residence and also allows for calculation of economic characteristics of the whole household. The information available in this survey on working experience of Mexicans in the U.S. will be used as an indicator of their human capital accumulation abroad. The choice in favor of immigrants with work experience abroad rather than students receiving education in economically advanced nations is explained by a lack of available data on the latter group. The survey includes 325,557 individuals, with representative sample in each of the 32 states of Mexico.

3.2. Sample.

The part of the survey that is used in this thesis is called Archive of General Data (*Archivo de datos generales*) and includes 325,557 individuals, 76,550 of which have migration experience in the U.S. and 12,163 have worked there. Therefore, according to the data only about 16% of Mexicans that have been to the U.S. have worked there. This implies that the majority of Mexicans went to the U.S. for other reasons than work. They might accompany their relatives that went to the U.S. for work or could visit their friends living in the U.S. However, taking into account that many Mexicans may illegally migrate to the U.S., have no job permission, but still work, the number of Mexicans with working experience in this survey may be considerably underrepresented. That is, a large number of Mexicans that have worked illegally in the U.S. may deny having worked there due to sanctions that they may be exposed to.

The dataset is composed of basic socio-economic characteristics of individuals, and contains information on dates of emigration and return. That is, it is possible to control for period stayed abroad, while information on an occupation in the U.S. or a state, where immigrants stayed in the U.S., is not available. Also, data provide information on a current type of employment and income in Mexico, including different sources of income, thus it is possible to evaluate economic performance of returnees at home by looking at their income from work. Also, the dataset includes variables on age, educational level, a place of birth, a place of current residence, time spent in a current residence and in the U.S., socio-economic and marital status, and a number of trips to the U.S.

The sample used in this thesis is restricted to those individuals that have non-missing values for the variable that indicates work experience in the U.S. Then, there are 232,929 individuals in this sample, 220,766 of those have not worked in the U.S. After that, only those individuals who are 19 years old and more are included, because it is likely that young Mexicans

have low income due to a lack of working experience and they may decide to migrate temporary to the U.S. when they become older. Also, another threshold of 30 years is used in a sensitivity analysis, as many Mexicans may have not finished their studies or found a permanent job before that age. Also, the retirement age in Mexico is 65 years and thus all individuals who are 66 years and older are excluded. In addition, the sample is restricted to those who are born in Mexico. Further, 81% of those who have worked in the U.S. also work in Mexico, whilst only 64% of Mexicans that have not worked in the U.S. are employed in Mexico. A large number of Mexicans that do not have working experience in the U.S. stays at home and take care of their relatives (27%). These individuals, who are not employed, are excluded from the sample. In addition, individuals that do not reside in a place where the survey is taken are excluded. Also, individuals that have missing values for the variables used for a model estimation, like a level of education, marital status, relation to a head of a household are excluded. Therefore, the sample of Mexicans that are of interest in this paper consists of 6,754 individuals that have worked in the U.S. and 88,013 individuals that have not. Both these groups include only individuals that are 19-65 years old, born in Mexico and currently employed and living in a known Mexican state. Among returnees 6,120 are men and 634 are women, whilst the sex distribution is more equal among those Mexicans that have not worked in the U.S. that is, there are 54,464 men and 33,549 women. The majority of Mexicans that have worked in the U.S. have made from one to three trips (55%, 18% and 11% respectively). That is, it is unlikely that the sample includes seasonal migrants or those who commute regularly between Mexico and the U.S. Also, only about 12% of Mexicans that worked in the U.S. had a working permit, whilst 88% worked there illegally. Therefore, as the number of Mexicans openly reporting absence of a work permit together with actual work experience is high, this may indicate that most Mexicans, who did work in the U.S., reported this. Thus, a real proportion of Mexicans with work experience in the U.S. may not vary much from the one presented in the sample. The mean age of individuals is 35, whilst mean income per month is 1808 units of local currency (peso). Mexicans that have been to the U.S., but have not worked there are considered separately from the groups without migration experience and with working experience in the U.S. However there are less than 400 individuals that have lived in the U.S., but did not work there.

4. Methods.

Methods that are used to analyze a relationship between working experience in the U.S. and economic outcomes of Mexican returnees is a linear regression calculated using ordinary least squares (OLS) and multinomial logit regression (MNL). The former model is estimated with logged income as a dependent variable and socio-demographic characteristics as control

variables. The latter model is used with a type of work as a dependent variable and includes the same independent variables as OLS model. The outcomes of the second model are an employee, a farm worker or a laborer, an employer with employees, a self-employed, a contract worker, a worker in a non-paid business or a family farm.

A linear regression model is used to analyze the association between individual characteristics and a continuous variable that represents an income from work. The variables that are expected to explain individual's income include demographic and social characteristics of a person and working time spent in the U.S.

Multinomial logit model assumes that an outcome variable is a categorical variable that can take more than two values and relies on the assumption of independence of irrelevant alternatives. In the sample that is used here the type of occupation has six values and it is plausible to consider that they are independent of each other. That is, a probability of becoming, for instance, a self-employed does not depend on a probability to be a contract worker, though both these outcomes are likely to be a result of individual socio-economic characteristics.

4.1. Statistical model

The model for the estimation of an association between migration experience and an income is as follows.

$Y = \alpha X + \beta R + \gamma T_{US} + \delta B + \eta NW + \varepsilon$, where Y is an income from work in a logged form, X is a set of control variables, which includes sex, age, education, a marital status, a relation to the head of a household and a socio-economic status of an individual, R is a dummy variable for a state in Mexico where an individual is currently living, T_{US} is a continuous variable that indicates time spent in the U.S. This variable takes value zero for those who have not worked in the U.S. and a certain value for those Mexicans that worked there. Then, B is a dummy variable that indicates a state where an individual was born; NW is a continuous variable for measuring time spent in the U.S. for those, who did not work there. It is zero for Mexicans with working experience in the U.S. and for those, who have not been to the U.S., and ε is error term. This model is used to check the hypotheses of a positive relationship between working time in the U.S. and an individuals' income and a relationship between a current place of residence and an income. Additionally, the hypothesis that migrants from less developed regions are better off than their counterparts without migration experience and the opposite hypothesis for migrants from advanced regions will be checked. Obviously, an income of Mexicans with migration experience from a certain region will differ by a magnitude of the variable coefficient "Time spent in the U.S." from earnings of Mexicans without working experience in the U.S. Therefore, the variables of interest for checking this hypothesis are "Time spent in the U.S." (γ) and a "Place of

birth” (δ). The latter will show income of Mexicans separately for each economic region, whilst taken together these variables will indicate income of returnees in each region. Also, the variable indicating time spent in the U.S. for Mexicans, who did not work there, is introduced so as to assess separately the relationships between individual’s income and staying in the U.S or working there. Then, the interaction term of time spent in the U.S. and a place of birth is introduced to check the hypotheses of a better economic performance of migrants from less developed regions in comparison to migrants from economically developed regions. This outcome is expected mainly from different reasons for migration that Mexicans in more developed and less developed states have. Finally, to control for time spent at home that can potentially affect economic outcomes a continuous variable showing period lived in a current residence (T_H) is introduced. However due to its perfect correlation with an age of some individuals, the latter variable is removed from the last specification of the model.

The second model shows the probability of each employment type relatively to a reference category. The model itself is as follows. $Y = \alpha X + \beta R + \gamma T_{US} + \delta B + \eta NW + \varepsilon$, Y is a relative risk ratio of each response, X is a set of control variables, which includes sex, age, education, a marital status, a socio-economic status of an individual and a relation to a head of a household, R is a dummy variable for a state in Mexico where an individual is currently living, T_{US} is a continuous variable that indicates time spent in the U.S. for those, who have worked there, B is a dummy variable that indicate a state where an individual was born, NW is a continuous variable for measuring time spent in the U.S. for those, who did not work there, and ε is an error term. In this model the coefficient of time spent working in the U.S. (γ) is of main interest because it is expected to have a large positive impact on the probability of becoming a self-employed.

4.2. Definition of variables

The variables used for the estimation of the models include socio-demographic characteristics of individuals: sex, age, education, a marital status, a socio-economic status of an individual in a current residence area, a relationship to a head of a household. Sex is a dummy variable with “male” as a reference category. Age is a continuous variable that is truncated to ages 19-65. Education is measured as a level of education, which varies from preschool, primary, secondary, high school to bachelor degree, professional degree and post-doctorate studies. The reference category here is having no education. Marital status is a categorical variable that takes eight values, but for this study the values are grouped into two categories: single (divorced, widowed) and married (living with a partner, married by church, by a government official, by both church and government official). The former category is chosen as a reference group. Socio-economic status is a variable which ranges from 1 to 6 and describes position of individuals in each area

based on a stratum they belong to. The value 1 indicates the highest status and it is a reference category in the analysis, value 6 is for the lowest status. The variable that indicates a relationship to a head of a household has six categorical values, but for this study they have been grouped into four categories. This shows whether an individual is a head of a household (a reference category), a partner of a head, a son or a daughter, or has other relationship to a head of a household.

Then, migration experience is represented by dates of a last trip and return from the U.S. This variable is based on a year and a month of the last trip and a year and a month of return for those who have worked in the U.S. For the other groups of Mexicans this variable takes value zero. If the year of return is missing, then the year of return is assumed to be 1997. Also, in case of missing value for a month of return, then November is used as a month of return, because ENADID survey was carried out in November, 1997. In the dataset about 9% of the returnees have their last trip return date missing. In case if year of last trip is missing, only months in the U.S. are calculated. Then, if there is information on both years and months in the U.S., then it is presented as a total number of months in the U.S. In addition, there are variables that show a number of years and months spent in a current residence; they are transformed into one variable, which indicates a number of months that an individual has spent in a current residence. Also, a variable that indicates time spent in the U.S. for Mexicans with no work experience there is presented in months, it equals zero for Mexicans with work experience in the U.S. and for Mexicans without migration experience. Additionally, a variable that shows work experience in the U.S. is present and it is binary, however it is perfectly correlated with time spent in the U.S.A and for this reason it is not used in the regressions.

Also, there are variables that describe a current residence (a state in Mexico) and a place of birth. That is, there are two variables; one indicates Mexican state where an individual currently lives, and another one shows where an individual was born. Each of these variables can take values of 32 Mexican states. So as to group the values of the first variable an economic categorization of the states is taken from Rodriguez-Oreggia (2005). It is based on a comparison of GDP and a rate of growth in a certain state with an average for the country and results in following groups of states: “winner” states, which have higher than the average GDP and growth rate, “catching-up” states that have lower than the average GDP, but higher than the average rate of growth, “loser” region that has lower than the average indicators for both GDP and economic growth rate and “falling-behind” region that has higher than the average GDP, but lower than the average growth rate. The table with this categorization can be found in the appendix. Therefore, for the variable indicating a current place of residence four groups of states are created based on their economic status in the 1990s. That is, the categorization of Mexican states in 1985-2000

groups the states so as to allow for economic development of a region where an individual currently lives. The reference category in the regression models is a “loser” region group. Then, it is also important to take into account economic development of regions before 1997, when individuals were most likely to make trips to the U.S. According to the dataset, the mean year of the last trip to the U.S. is 1987 and therefore, emigrants are likely to be affected by economic conditions in the region where they were living at that moment. Thus, if in 1997 (a year of survey) a mean age of individuals is 35 years, and a mean year of a last trip to the U.S.A. is 1987, then individuals were 25 years at that moment ($1997-1987=10$; $35-10=25$). If one assumes that an individual had not migrated within the country by the age of 25, then a variable that indicates birthplace can be used as a proxy for place of residence in 1987. The values of this variable are grouped into four categories of regions based on categorization of Mexican states in 1970-1985 by Rodriguez-Oreggia (2005). The description of the four groups is the same as for the variable indicating current place of residence. The time period of this categorization is a little earlier than 1987, but it is unlikely that during two years (1985-1987) average GDP and growth rates changed dramatically. This variable is called “Living in 1980 in a (certain) region” in the regression models. The reference category is a “loser” region group. Finally, basing on the classification of regions one notes that the majority of Mexicans (88%) have changed their place of residence after they were born. In particular, 73% of those who have worked in the U.S. and 83% of those who have not were living in a different group of states in 1997 to that they were born in. However it may plausibly be that most people stayed in the same state, but because a state changed its group name, these people appear to have migrated. Indeed, when states of birth and a residence in 1997 are compared, only 23% of both Mexicans with and without work experience in the U.S. have changed their state of residence since their birth.

Finally, variables that indicate economic activity of an individual are an income per month, and a type of employment. The former variable is continuous and it includes income that an individual has from work. Then, a type of employment is a categorical variable with six values: an employee, a laborer or a farm worker, an employer with employees, a self-employed, a contract worker, and a non-paid worker in business or a family farm. By looking at the data it appears plausible to use “employee” as a reference category in the analysis, because the majority of Mexicans belong to this category.

5. Empirical analysis

5.1. Statistical results

The first model is estimated using OLS, checked for heteroskedasticity using Breusch-Pagan test and estimated with robust standard errors. Variables are also checked for multicollinearity and residuals are checked for normality. During the estimation procedure different specification forms of the variables of interest have been tried, but most of them provide statistically insignificant results. In the second model an interaction term is added to the initial model and age threshold is increased up to 30 years. The specification of the third model is similar to that of the first one, but it includes an interaction term and time spent in the current residence, and variable indicating age is removed. The results in a form of % effects are shown below, the estimates for all the models can be found in the appendix.

Table 1. The effects of socio-economic and migration characteristics on an individual's total income per month.

	% Effects (1)	% Effects (2)	% Effects (3)
Socio-economic status (close to highest)	-15.8***	-15.3***	-11.4***
Socio-economic status (upper-middle)	-23.2***	-22.0***	-16.9***
Socio-economic status (lower-middle)	-18.8***	-16.0***	-9.2***
Socio-economic status (close to lowest)	-8.0*	-17.0***	-3.8
Socio-economic status (lowest)	16.4***	13.0	22.1***
Sex (female)	-24.1***	-32.4***	-31.4***
Age	0.0	-1.4***	
Married	-6.2***	8.8***	-1.1
Partner of a head of a family	-69.5***	-65.6***	-62.2***
Son or Daughter of a head of a family	-61.2***	-53.8***	-56.8***
Other relationship	-41.1***	-35.5***	-32.0***
Preschool	68.0*	34.0	48.4
Primary	92.7***	89.1***	86.1***
Secondary	333.6***	330.6***	251.5***
High School	451.2***	494.8***	378.3***
Bachelor Degree	1494.3***	1382.0***	1081.1***
Professional Degree	968.7***	1085.8***	795.3***
Post-graduate	1945.0***	1951.2***	1586.1***
Living in "falling behind" state	41.8***	37.3***	27.9***
Living in "catching-up" state	-0.5	-3.8*	9.4***
Living in "winner" state	70.2***	54.5***	65.5***
Living in 1980 in "falling behind" region	12.4***	11.4***	12.0***
Living in 1980 in "catching-up" region	-21.3***	-18.7***	-10.1***
Living in 1980 in "winner" region	-22.7***	-15.9***	-15.3***
Period stayed in the U.S. (month)	-0.5***	-0.3**	-0.5***
Non-working time spent in the U.S (month)	0.2	0.2*	0.2*
Period stayed in the U.S.(month) squared	0.0***	0.0***	0.0***
Living in 1980 in "falling behind" state*Months stayed in		-0.1	-0.2

the U.S.			
Living in 1980 in "catching-up" state*Months stayed in the U.S.		-0.5**	-0.6**
Living in 1980 in "winner" state*Months stayed in the U.S.		-0.5	-0.6
Period lived in current residence (month)			0.0***
Constant	32308.3***	61979.4***	36367.3***
	R-squared=0.2054 N=94767	R-squared=0.2531 N=56992	R-squared=0.2145 N=42560
<p>Note: The dependent variable is a logarithm of an individual's income per month. P-values are based on (White/Huber) heteroskedasticity robust standard errors. ***, **, * indicate statistical significance on 1%, 5%, 10% level respectively. % effect in y of a one unit change in X is given by 100*(exp(estimate)-1)). Estimates can be found in the appendix.</p>			

Data source: ENADID (1997).

The variables in the model that refer to socio-economic and demographic characteristics are almost always statistically significant in all model specifications. However preschool education becomes insignificant in second and the third model specifications; marital status becomes insignificant in the last model, and age in the first. Also, the lowest socio-economic status becomes statistically insignificant in the second model, and the status close to the lowest is insignificant in the last model. Further, the signs and magnitudes of the significant coefficients remain almost the same in all the models, with an exception of marital status, where the sign changes from negative to positive in the second model in comparison with the first one. Then, the variables of main interest, in particular time spent on the U.S., an interaction of time spent in the U.S. and a place of residence in 1980 (place of birth), and current place of residence are mainly statistically significant with an exception of two outcomes of the interaction term in the second and third models. The number of observations is smaller in the second model due to additional age truncation, however R-squared is the largest among all the models. Then, when time spent in a current residence is introduced in the third model, the number of observations drops more than twofold in comparison to the first model, though R-square increases slightly and the variable indicating time spent in Mexico has a statistically significant coefficient. By and large, in the presented models the magnitudes of coefficients of socio-economic variables are relatively large, whilst the coefficients of the variables of interest are small and sometimes statistically insignificant. In the next section the socio-demographic coefficients of the second model will be discussed in more details, and comments on the first and last models will be made, when variables of main interest are discussed.

The second model with a type of work as a dependable variable is calculated using maximum likelihood estimation. The statistically significant results at 10% level are presented in

a form of relative risk ratios. The magnitudes of the relative risk ratios of the majority of the variables are close to one, which indicates that the relative risk does not differ much between a certain type of employment and a reference category, which is being an employee. Therefore, only those relative risk ratios of socio-demographic characteristics, which are larger or smaller by at least 0.5 points than one, are shown in the table 2. A table with all results can be found in the appendix.

Table 2. Multinomial logit estimates of a type of work.

	Relative Risk Ratio	P-values
Laborer/Farm worker		
Sex (female)	0.092	0.000
Preschool	0.302	0.005
Primary	0.309	0.000
Secondary	0.072	0.000
High School	0.020	0.000
Bachelor Degree	0.003	0.000
Professional Degree	0.005	0.000
Partner of a head of a family	1.621	0.000
Living in "winner" state	0.408	0.000
Period stayed in the U.S. (month)	1.004	0.031
Employer with employees		
Sex (female)	0.380	0.000
High School	2.370	0.002
Bachelor Degree	0.488	0.041
Professional Degree	2.773	0.000
Other relationship	0.456	0.000
Period stayed in the U.S. (month)	1.011	0.000
Non-working time spent in the U.S (month)	1.010	0.000
Self-employed		
Preschool	0.476	0.020
Secondary	0.286	0.000
High School	0.234	0.000
Bachelor Degree	0.040	0.000
Professional Degree	0.164	0.000
Post-graduate	0.095	0.000
Partner of a head of a family	1.972	0.000
Period stayed in the U.S. (month)	1.008	0.000
Contract worker		
Socio-economic status (lowest)	0.239	0.045
Preschool	0.168	0.083
Primary	0.357	0.000
Secondary	0.129	0.000
High School	0.079	0.000
Bachelor Degree	0.025	0.000
Professional Degree	0.031	0.000
Post-graduate	0.015	0.000
Partner of a head of a family	2.486	0.000
Living in 1980 in "winner" state	2.255	0.000

Non-paid worker in business or family farm		
Socio-economic status (lowest)	0.236	0.002
Preschool	0.383	0.100
Primary	0.465	0.000
Secondary	0.150	0.000
High School	0.137	0.000
Bachelor Degree	0.018	0.000
Professional Degree	0.079	0.000
Post-graduate	0.017	0.000
Partner of a head of a family	16.690	0.000
Son or Daughter of a head of a family	10.050	0.000
Other relationship	4.789	0.000
Living in "winner" state	0.467	0.000
Period stayed in the U.S. (month)	1.010	0.000
Log likelihood = -105175.79		
N = 98525		
Prob>chi2 = 0		
Pseudo R2 = 0.1388		
Note: The dependent variable is type of employment and the omitted category is being an employee.		

Data source: ENADID (1997).

A number of observations is little higher in this model than in the first one, because here the variable indicating earnings is not used and thus, observations where its values are missing are not dropped. The variable of main interest in this model, namely time spent in the U.S. has very small coefficients. Moreover, when statistically insignificant results are considered, they also do not show a sizable change in a probability of having a particular type of employment in comparison to being an employee (see Appendix for the complete table of the results). Also, an association between socio-economic and demographic characteristics and a risk of having a certain type of employment is in most cases statistically significant. These results are more discussed in the next section.

5.2. Discussion

The results of the model of an individuals' income earned per month show expected associations between socio-demographic characteristics and a percentage income change. The relationship between migration experience and personal income is not always in line with theory expectations. Here the socio-demographic coefficients of the second model are mainly examined, as this model has the highest R-squared. However when variables of main interested are discussed, the results of the first and third models are also introduced into discussion.

First of all, a lower socio-economic status in comparison to a reference category leads to a decrease in earnings, which ranges from 15% for Mexicans with the closest to the highest socio-economic status to 22% for Mexicans with upper-middle socio-economic status. This is

plausible from an economic point of view that Mexicans, who belong to any other class but the highest, earn less. However it is unexpected that the lowest status group has a higher income than a reference category, namely the highest status group. This result is insignificant in the second model, but becomes so in the first and the third ones. The reason may be that a definition of a socio-economic status is faulty in this survey. That is, individuals that have a high social, but not high economic status may still believe that they belong to the highest class, especially if in a survey individuals decided for themselves which class they belong to. In this case Mexicans that do not belong to the highest socio-economic class may have assumed that they do. Also, a bigger disadvantage of the upper-middle status group in comparison to those closer to the lowest group and low-middle status groups is unexpected. Income of Mexicans in the upper-middle status groups is decreased by 22% in comparison to the income of high status Mexicans, whilst income of Mexicans in the close to the lowest group is lower by only 17% and that with a lower-middle status is lower by 16%. Apparently, Mexicans in the middle class are worse off than their counterparts with both the highest and the lowest socio-economic status. This result is difficult to explain, because one would expect this group to be better off than those with a lower socio-economic status.

Secondly, females' earnings are about 32% lower than those of males and this may be expected as women may work less as in less-developed countries a strong male breadwinner model is prevalent and this may not encourage women to work and earn more. This estimate is twice as small as that of a partner of a head of a family, though both of them are negative. An income of a partner of a head of a family is about 66% less than that of a head of a family. Assuming that a head of a household is more likely to be a man in Mexico than a woman, then a partner, who is likely to be female, expectedly has a lower income. Also, a two-fold difference of the magnitudes of these coefficients indicates that being a partner of a head of a household suppresses earnings much more than being a female. Then, children of a head of a family have lower by 54% income, which in turn can be explained by the fact they are expected to maintain family to a lesser extent than a head of a household. Therefore, they may not be required to have a job that provides them with a high salary. Income of a group that has other type of relation to a head of a family is difficult to scrutinize as these people may be friends or house workers. In the first case there is likely to be no plausible explanation for a lower income of, for instance, a friend. However if this group mainly consists of house workers, then their lower by 36% earnings appear reasonable as their wages are paid by a head of a household. Then, married individuals have a higher by 9% income than singles, so living with a partner or being married in a church and/or by a governmental official is found to increase an income. However, being married has a negative association with an income (6%) when age group 19-65 is considered.

Probably, being married at a younger age decreases earnings due to additional family obligations, like raising children. In contrast to this, for an older age group, whose children are not so young, raising children does not disturb working life.

Thirdly, age has an unexpectedly negative relationship with an income though it is very weak, that is, becoming one year older shows a less than 2% earnings decrease. This variable is not statistically significant in the first model. This may indicate that the largest income in Mexico is received in the first part of a working life and thus, after the age of 30 each year leads to a lower income. Further, a large impact on income is found for education. For instance, post-graduate studies show increased income by 1950%, and this is followed by a bachelor degree and professional degree, which are associated with a higher by about 1380% and almost 1085% income respectively. Mexicans that graduated from a high school have their earnings increased by 495%, and those that attended a secondary school by 330%, whilst Mexicans with only primary school or preschool education increase their earning by 90% and 34% respectively, though the last coefficient is not statistically significant. Obviously, having at least some education leads to higher earnings, as these results show that all groups have increased earnings in comparison to a reference group, which has no education at all.

Further, living in a more prosperous current state does not necessary indicate higher earnings. Only those, who are residing in “winner” states or “falling behind” states, have higher income by 55% and 37% respectively than the reference group. Mexicans living in “catching-up” states have lower by 4% earnings than their counterparts living in a region with both lower than average GDP and growth rates. These unusual results may be explained by the shifts in groups’ composition of advanced and stagnate regions during the period under study. That is, regions that compose now a group called “loser” currently suffer from lower than the average growth rates and GDP. However only three out of nine of them belonged to a “loser” group in 1970-1980, others were developing rapidly (five out of nine) and one had GDP higher than on average. That is, this group may consist of states that are not as stagnate as their group name suggests. Therefore, Mexicans living in this region are not as worse off as their counterparts from regions that are rapidly developing now. Ideally, it would be more informative to include states of a current residence in the regression model without grouping them as in this case it would possible to analyze relationship between macro economic condition of a place of residence and individual’s economic outcomes. However, including 32 dummy variables in the model would make it cumbersome and difficult to work with. Interestingly, the coefficient of a “catching-up” group is insignificant in the first model, but becomes positive in the third model. That is, when time spent in Mexico and interaction term of time spent in the U.S. and place of birth are introduced in the model for 19-65 age group, this proves the hypothesis that living in a

more developed state leads to better earnings. However the analysis with similar variables, but for the age group 30-65 shows a lower income in states with lower than average GDP, but higher growth rates. This indicates that older Mexicans can benefit from a rapid economic growth in a region, where they are currently living, to a lesser extent than their younger counterparts.

Then, the coefficient of working time spent in the U.S. is statistically significant, though it is very small and unexpectedly negative. This coefficient in the first model shows that one additional month spent in the U.S. decreases current income by less than 1% (0.5%). Therefore, this contradicts the hypothesis that a longer stay abroad leads to a higher income upon arrival back home. In the second and third models this coefficient indicates a percentage decrease of income for immigrants that used to live in a “loser” region before migration. That is, Mexicans from states with lower than average GDP and growth rates decreased their income by 0.3% with each month stayed in the U.S if they are 30-65 years old or by 0.5% if they are 19-65 years old. Therefore, a work experience in the U.S. has a more detrimental effect on earnings of younger migrants from stagnate regions than their older counterparts. Probably, young Mexicans are more likely to have a low-skilled physical job, whilst their older counterparts are not fit enough and they do not go to the U.S if they are not able to find a job that does not demand solely physical strength. Therefore, investments in human capital of young Mexicans, who work in the U.S., are lower than those of their older counterparts. Additionally, a squared term of working time spent in the U.S. does not change the income, though it is statistically significant. Then, when a measure of time spent at home is introduced in the last model, it is significant and shows positive association with an income, though its magnitude is far less than even 1%. Thus, the results suggest that the more time an individual stays in Mexico, the higher his or her income will be and the longer an immigrant stays abroad, the lower his or her income will be upon arrival home. The latter coefficient is larger than the former and may be explained by a loss of social network and location specific human capital, and too small gains in transferable skills, while being abroad. That is, returnees do not have the same social network as their counterparts that did not migrate; this may impede their jobs search and thus, leads to lower earnings. Secondly, migrants are likely to carry out low-skilled work in the U.S. that does not lead to any considerable human capital accumulations. Therefore, while being in the U.S. their human capital stock does not increase and may even decrease, and this leads to lower income. On the contrary, a longer period of time spent in Mexico is positively associated with income; and this may be explained by learning specific skills that are necessary for working in Mexico. Thirdly, Mexicans in the U.S. may learn skills that are not transferable to their jobs at home due to large differences in economic development between the U.S. and Mexico and thus, working time spent in the U.S. does not lead to their higher income at home.

Additionally, the relationship between the place of residence in 1980 and an income is significant in all the models. These coefficients show the income premium of Mexicans that lived in a particular place of residence in 1980. According to the results in the first model Mexicans from “falling behind” states are better off than their counterparts from other regions. That is, Mexicans from states with lower than average growth rates, but higher than average GDP in 1980 have an income 12.4% larger than their counterparts that lived in states with lower than average GDP and growth rates. Mexicans from other states have, surprisingly, lower income than their counterparts from a “loser” region. Residents of states with higher than average growth rates in 1980 have their income decreased by 21.3% if they lived in a state with lower than average GDP or by 22.7% if they lived in a state with higher than average GDP in comparison to a state with both lower than average GDP and growth rates. This indicates that living in a more economically developed state in 1980 does not lead to a higher income in 1997. It appears plausible that Mexicans could have migrated within region groups or their home state could have changed its group by the time of a survey. Therefore, a place of birth does not have a direct relationship with future income and there is a location premium only for Mexicans, who lived in a “falling behind” region in comparison to states with lower than average GDP and growth rates, whilst those living in any other state in 1980 have a lower income. The results of the second and third models show that these magnitudes decrease to 11.4%, -18.7% and -15.9% in the second model and increase to 12%, -10.1% and -15.3% respectively in the third model. A more substantial decrease in income of Mexicans, who lived in states with higher growth rates (“catching-up” and “winner” states), in the second model in comparison to the third may indicate that older Mexicans were less able to take advantage of a rapid economic growth in a region where they were living in the 1980s. Also, a greater income increase in “falling behind” states for younger groups may indicate that they suffered financially less from lower rates of economic development in the region where they lived in 1980. Plausibly, younger Mexicans could migrate outside stagnate regions more easily than their older counterparts. Further, as working abroad has a negative association with an income change in the first model it appears to reduce earning of returnees in an advanced region, but it does not boost those in a stagnate region. Therefore, these results contradict the hypothesis that migration experience in the U.S. would increase earnings of returnees in stagnate states and decrease them in advanced states in comparison to Mexicans without migration experience. One of the possible reasons for a negative association of migration with earnings for all Mexicans in the first model may be that this model is not specified correctly. Indeed, the model does not allow for changes in an effect of the variable “Time spent in the U.S.” depending on a place of residence before migration. Then, when the interaction term of a time spent in the U.S. and place of birth is added in the second and third models, these

coefficients together with the coefficient of a variable “Time spent in the U.S.” show an effect of migration experience for returnees depending on a region where they lived before migration. That is, it is possible to evaluate the relationship between working in the U.S. and income change for returnees in comparison to earnings of Mexicans without working experience in the U.S. for each region in Mexico. The results of the second model indicate that for the returnees, who lived in 1980 in a state with lower than average growth rates, but higher GDP, income is $(-0.3-0.1) = -0.4\%$ lower with each month worked in the U.S. than in a reference group. Then, income of returnees, who lived in a state with lower than average GDP, but higher growth rates in comparison to that of a reference group, decreases by $(-0.3-0.5) = -0.8\%$ with each month worked in the U.S. Finally, earnings of returnees in a state with higher than average GDP and growth rates decrease by $(-0.3-0.5) = -0.8\%$ with each additional month worked in the U.S. The coefficients are little larger in the third model, but the results of both models show that there are no gains in income for returnees, who used to live in a stagnant region before migration, in comparison to their counterparts, who did not work in the U.S., and this contradicts the hypothesis. Probably, an occupation of Mexican migrants in the U.S. did not lead to any substantial human capital investments or they were not able to use them in Mexico due to a large gap in a level of development between the countries.

Further, there is a small positive association between time spent in the U.S and earnings if an individual did not work in the U.S. This estimate may be positive due to reverse causality between this variable and the outcome variable. That is, Mexicans with higher income are more likely to spend more months in the U.S., if they go there, for instance, as tourists.

Finally, the interaction term of working time spent in the U.S. and a place of residence in 1980 is significant only for states with lower than average GDP, but higher than average growth rates. This relationship is negative, but it is weak as the coefficients are less than 1%. The coefficients of this variable are also negative for “falling behind” states and a “winner” region, though they are not statistically significant. That is, according to the second model income of Mexicans from states with lower than average GDP and growth rates decrease by 0.3% with each month stayed in the U.S. if they worked there. Their counterparts from states with lower than average growth rates, but higher GDP have $(-0.1-0.3) = -0.4\%$ change in their income with each month stayed in the U.S. Then, Mexicans from states with lower than average GDP, but higher growth rates have earnings changed by $(-0.5-0.3) = -0.8\%$. Also, income is changed by $(-0.5-0.3) = -0.8\%$ for Mexicans, who lived in states with higher than average GDP and growth rates before they went to work in the U.S. The results of the third model built for a 19-65 age group reveal even further decrease in incomes of returnees. Mexican returnees from a region with lower than average GDP and growth rates have their earnings decreased by 0.5% with each

month stayed in the U.S. Their counterparts from states with lower than average growth rates, but higher GDP suffer from $(-0.5-0.2) = -0.7\%$ change in earnings, whilst Mexicans from states with higher than average growth rates have an income changed by $(-0.5-0.6) = -1.1\%$ with each month stayed in the U.S. This indicates that younger returnees suffer financially more than their older counterparts. Probably, they may be unable to find a highly paid job due to a lack of work experience upon arrival home. Also, they may have had less skilled jobs while being in the U.S. and thus, they have learned fewer skills, which may be used in Mexico. This rejects the hypothesis that migrants from stagnate regions are worse off than migrants from developed regions. That is, relatively larger losses from working experience abroad for Mexicans from states with higher than average growth rates (developed regions) contradict the theory expectations. Therefore, not only working experience in the U.S. does not contribute to a higher income of returnees in Mexico, but also if migrants used to live in an economically developed region before migration, their earnings are lower in comparison to their counterparts, who migrated from less advanced. Probably, migrants from more developed states were unable to seize economic opportunities, which emerged in their home states, while they were abroad. Also, migrants from stagnant regions have lower income, plausibly, because their migration experience did not help them to raise their socio-economic status at home.

The second model shows a relative risk of having a certain type of employment in comparison to being an employee. This relative risk depends on working time spent in the U.S. and some socio-economic characteristics, like a socio-economic status of individuals, their sex, age, educational level, place of residence and birth, and a degree of responsibility for maintenance of a family, which is characterized by a relation to a head of a household. A magnitude of the effects of some specific social characteristics is quite strong, though for most of the variables it is almost negligible. First of all, females and Mexicans with at least some education are considerably less likely to be laborers or farm workers than employees. The former are 0.09 times likely to be laborers, whilst Mexicans with primary or preschool education are 0.3 times likely to be laborers, and those graduated from a secondary or a high school are 0.07 and 0.02 times likely to be farm workers respectively. This appears plausible as being a farm worker requires physical strength that women may lack and also, with at least some education an individual is able to find a better job than being a farm worker. Graduates with a bachelor or a professional degree also have enough opportunities in a labor market and they do not have to work as low-skilled farm workers. This explains that they are almost unlikely to be laborers or farm workers. Additionally, living in a state with higher than average GDP and growth rates decreases a probability of being a laborer, which may be explained by more opportunities to find another job there. In contrast, being a partner of a head of a family increases this relative risk

ratio, probably because spouses are likely to work together if one partner works in a farm. The time spent in the U.S. has a weak positive relationship with the risk of being a laborer. Plausibly, if migrants work as agricultural workers in the U.S., upon their arrival home they have to find a similar job there, though it contradicts the theory as returnees have a higher social status and refuse doing a low class job. However as it is impossible to control for a type of employment in Mexico before migration due to data constraints, this result may not necessarily imply that a social status of returnees has not increased. Plausibly, they could have been unemployed in Mexico before they went to the U.S., so being a laborer is definitely an improvement in their social status.

Secondly, relative risk ratios of being an employer with employees are more than two times higher for high school graduates and 2.7 times higher for Mexicans with a professional degree. The latter result may be explained, for instance, by an acquisition of managerial skills during education. The former may indicate that these Mexicans were already involved in some form of family business while studying at school and after finishing high school they worked in that business. According to the results for working in a non-paid business or a family farm, family members are very likely to work in such a business. Partner of a head of a family are almost 17 times likely to be involved in a family business and the relative risk ratio for children is 10. Therefore, children may later continue working in this business and for this reason they may finish their education with only a high school diploma. Further, females are 0.4 times likely to be employers with employees, probably because highly risky economic environment in Mexico may hinder their business from development. Then, having a bachelor degree and having other relationship with a head of a family lead to almost 0.5 times less probability of being an employer with employees. The former group may have enough opportunities on a labor market and thus, they may prefer to be employees as this type of employment is the least risky among all others. The results for other employment outcomes confirm this idea, that is, Mexicans with a bachelor degree are 0.04 times likely to be self-employed, 0.025 times likely to be contract workers and 0.02 times likely to be in a non-paid family business in comparison to being employees. Then, Mexicans that have other relationship with a head of a family may be house workers, and for this reason they are so unlikely to be classified as employers with employees in this survey. The association between staying in the U.S. and being an employer with employees is weak; and it appears that working in the U.S. and living there without being employed have a similar impact on being an employer with employees. Probably, working in the U.S. leads to becoming an employer due to the loss of social network in Mexico and in this case returnees have to choose this type of employment. In contrast to this, Mexicans that have not worked in the U.S., but have been there may have this employment outcome due to reverse causality. That is,

while being employers they travel to the U.S., for instance, to make business connections and professional contacts or to purchase materials for their business.

Thirdly, Mexicans with at least some education and especially for those with a bachelor degree are unlikely to be a self-employed. Probably, this type of employment is very risky and Mexicans that have an opportunity to be an employee would seize it. Therefore, Mexicans with post-graduate education are 0.095 times likely to be self-employed, though this relative risk ratio for graduates with a professional diploma is only 0.164. This may be explained by the fact that the latter group is more likely to become employers with employees and for this reason they may be also relatively more likely to be self-employed. Then, Mexicans, who attended preschool, secondary or a high school, are 0.48, 0.29 and 0.23 times likely to be self-employed respectively. Their risk ratios are higher than those with university education, which may be explained by their less rosy opportunities on a labour market. Nevertheless, these Mexicans are still more likely to be employed than to work for themselves. Interestingly, partners of family heads are almost twice likely to be self-employed, than to be employees. This may result from them being more risk-neutral as they may not be as responsible for family maintenance as a head of a family. Also, the relative risk ratio of being self-employed increases a little with each additional month stayed in the U.S. This is expected from the theory and proves the hypothesis that returnees are likely to start their own business upon arrival home.

Further, being a contract worker is less attractive than being an employee as it implies temporary employment and relative risk ratios of this outcome are similar to those of self-employed outcome. That is, university graduates, who have good opportunities to get a permanent job, are about 0.02-0.03 times likely to be contract workers and those having professional degree have the highest relative probability. Then, Mexicans, who graduated from school, are from 0.4 to 0.1 times likely to be contract workers and those, who attended secondary and high school, have the lowest probability. Also, a partner of a head of a family is more likely to be a contract worker than an employee by a factor of 2.5. This may be explained by a lower labour market attachment of females in Mexico, assuming that partners of a head of a household are more likely to be females than males. Further, Mexicans with the lowest socio-economic status are 0.24 times less likely to be contact workers. This may result from their lack of additional financial resources and high dependence of a salary and thus, this group desperately seeks to have a long-term employment. Interestingly, Mexicans, who lived in states with higher than average GDP and growth rates in 1980, are more than twice more likely to be contract workers. Plausibly, they could have their own business in that time period as economic conditions were favorable and then they switched to being contract workers if it became difficult to run their business with the passing of time.

Finally, applying a similar logic to the results of relative risk ratios of working in a non-paid business or a family farm, the magnitudes of the relative risk ratios appear expected. The higher the level of education an individual has, the less he or she is likely to work in a non-paid business or a family farm. The relative risk ratio is 0.38 for Mexicans, who attended preschool and 0.47 for those, who went to primary school. These decrease to 0.15 and 0.14 relative risk ratios for individuals with secondary and high school education respectively. University graduates are the least likely to work in a non-paid business or a family farm, plausibly because they are able to find a good employment on a labour market. Their relative risk ratios vary from 0.02 for a bachelor degree and post-graduates studies to 0.08 for a professional degree. For a similar reason Mexicans living in developed states are 0.47 times likely to be employed in a non-paid business. As they are living in states with higher than average growth rates and GDP they may have enough opportunities to find a job, and they do not have to work in a non-paid business. Individuals with the lowest socio-economic status are 0.24 times likely to be employed in a non-paid business; probably a lack of financial resources makes them unlikely to have a non-paid job. Interestingly, individuals with other relationship with a head of a household are almost five times likely to be employed in a non-paid business or a family farm. Plausibly, this group may consist of relatives of a head of a household other than children and a spouse, then it is expected that they work in a family farm. The relative risk ratio of being employed in a non-paid business or a family farm increases with each additional month stayed in the U.S. This is expected from the theory as working in a non-paid business may be the first stage of starting a returnee's own business. Therefore, the results of the second model prove the hypothesis that Mexican migrants upon arrival back home from the U.S. are more likely to run their business than to be employed. This may be explained by a loss of social network while being abroad and also by a higher social status of a returnee. In addition, Mexican returnees are also more likely to become laborers or farm workers and this contradicts the theoretical expectations of a higher status of returnees. However without a control for their previous social status at home it is difficult to evaluate their new social position.

6. Conclusion

Return migration to developing countries has been mainly studied in a context of an increased purchasing power among returnees owing to savings in a hard currency, which they are able to make while working in developed countries. This inevitably affects returnees' economic behavior at home, though it is not the only channel through which living and working abroad may influence their economic outcomes upon arrival home. Other research focuses on human capital investments of immigrants in developed countries, which is gained through studies and

then may contribute to economic development of their home countries. This paper has sought to analyze the relationship between possible human capital accumulations of temporary Mexican migrants that work in the U.S. and their economic performance when they return home.

The results of the model with a logged income per month as a dependent variable indicate unexpected negative, though very weak, association between working experience in the U.S. and a percentage change in earnings from work of returnees. Then, when migrants from different regions are compared with their counterparts, who did not migrate, there is found a small negative difference in change of returnees' income. This also contradicts the hypotheses that returnees from less developed regions are better off than their counterparts without work experience in the U.S. However the result proves another hypothesis, which assumes that returnees from advanced regions are worse off than their counterparts, who did not work in the U.S. Probably, human capital investments of Mexican migrants in the U.S. are too small to increase their earnings upon home. Alternatively, learned abroad skills may be not transferable or appropriate for Mexican economy. Then, if occupations of Mexican migrants in the U.S. could be included in a model, this would shed light on their real opportunities to invest in a human capital stock through working abroad. Further, when migrants from different regions are compared, the results show unexpected lower income of those, who lived in states with higher GDP. This contradicts the hypothesis that returnees from advanced states are better off than their counterparts from stagnant regions. Probably, the association between migration and earnings is more negative for Mexicans from economically developed states because they were unable to seize opportunities, which emerged in their home states during economic growth. Finally, the relationship between a current place of residence and earnings proves the hypothesis that living in a more advanced state leads to higher income if the analysis is carried out for a 19-65 age group and includes all variables of interest. However, this hypothesis is rejected if the model is estimated for individuals of age 30-65. Therefore, living in an economically developed state is positively associated with an income of younger Mexicans, which can be explained by their ability to seize the most of economic opportunities when economy is developing rapidly. Finally, time spent in the U.S. of Mexicans, who did not work there, is positively associated with an income. This may be explained by the fact that more wealthy Mexicans can afford traveling to the U.S. and staying there for a long period without a need to work there. Then, there are some doubts that the used model was specified correctly so as to capture the effect of migration separately for each region. While it was possible to estimate an impact of an additional month spent working in the U.S., the model does not allow comparing earnings of returnees and non-migrants in various regions. Additionally, other socio-demographic characteristics are found to have an expected relationship with earnings. That is, male individuals with more education and

responsibilities for family maintenance have higher earnings, though marriage has a positive relationship with an income only in age group 30-65. Also, the association between a higher social status and earning is a little confusing, but this may be explained by a wrong definition of a socio-economic status used in a survey.

The results of a model with a certain type of employment as an outcome variable have shown that working experience in the U.S. has a weak positive association with a probability to have any employment type, but being an employee upon arrival to Mexico. The relative risk ratios for being a self-employed, an employer with employees or a worker in a non-paid business or a family farm are higher for return migrants and thus, this proves the hypothesis that returnees are likely to start their own business. Also, a higher relative risk ratio of being a laborer or a farm worker than being an employee is found for returnees, and it contradicts the expectations as return migrants are assumed to have a high social status at home. However due to data constraints it is impossible to find if returnees' status increases or decreases in comparison to that they had before migration. Other results of this model are expected from the economic theory and show a higher risk of becoming an employee for individuals with greater investments into human capital, who live in regions that provide more opportunities to get a decent job and for those who are not expected to be employed in a family business. In contrast, individuals that come from regions with high growing rates in the past, have little responsibility for family maintenance and possess essential managerial knowledge are more likely to be entrepreneurs than employees.

The data used in this thesis have some considerable limitations that put constraints on the information used for answering a research question posed in this work. Firstly, only an approximation of a place of a residence before migration is used and also, there is no information on movements of an individual within Mexico. That is, it is not possible to examine if the relationship between temporary migration and an income can be found in a home community of a returnee. This may plausibly be that upon arrival home Mexican migrants move to live in another state in order to use the skills learned in the U.S. The assumptions made in this paper are that a state of birth is the same as a state before migration and that state of residence in 1997 is the same as the state upon arrival for the U.S., however Mexicans might have migrated within the country. Additionally, it would be useful to include states of a current residence and of birth in the regression model without grouping them. This could help to control for an effect of macro economic condition of a place of residence on individual's economic outcome. Also, it would be useful to allow for occupation that an immigrant has in the U.S. as this would reveal his or her real opportunities to learn valuable skills. Alternatively, a state of residence in the U.S. could

shed light on potential economic activities that Mexicans may be involved in and consequently, their possible human capital gains. Further research could focus on these aspects.

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Appendix

Table 1. Categories of Mexican States.

State	Categories	
	1985–2000	1970–1985
Border		
Baja California	W	F
Coahuila	W	F
Chihuahua	W	F
Nuevo León	W	F
Sonora	W	F
Tamaulipas	W	F
Centre North		
Aguascalientes	C	L
Baja California Sur	W	F
Colima	W	W
Durango	L	C
Jalisco	W	F
Nayarit	L	L
San Luis Potosí	C	C
Sinaloa	L	F
Zacatecas	L	L
Centre		
Distrito Federal	W	F
Guanajuato	L	L
Hidalgo	L	C
Mexico	F	F
Michoacán	C	L
Morelos	C	F
Puebla	C	L
Querétaro	W	C
Tlaxcala	L	C
Veracruz	C	L
South		
Chiapas	L	C
Guerrero	C	L
Oaxaca	L	C
Quintana Roo	W	F
Yucatán	C	L
Oil		
Campeche	F	W
Tabasco	F	C
W=winner;	L=loser;	F=falling-behind; C=catching-up

Source: Rodriguez-Oreggia (2005).

Table 2. Least squares estimates of individual total income per month.

	Estimates (1)	Estimates (2)	Estimates (3)
Socio-economic status (close to highest)	-0.172***	-0.166***	-0.121***
Socio-economic status (upper-middle)	-0.264***	-0.249***	-0.185***
Socio-economic status (lower-middle)	-0.208***	-0.174***	-0.096***
Socio-economic status (close to lowest)	-0.083*	-0.186***	-0.039
Socio-economic status (lowest)	0.152***	0.122	0.200***
Sex (female)	-0.276***	-0.392***	-0.377***
Age	0	-0.014***	
Married	-0.064***	0.084***	-0.011
Partner of a head of a family	-1.188***	-1.068***	-0.973***
Son or Daughter of a head of a family	-0.946***	-0.772***	-0.840***
Other relationship	-0.530***	-0.438***	-0.386***
Preschool	0.519*	0.293	0.395
Primary	0.656***	0.637***	0.621***
Secondary	1.467***	1.460***	1.257***
High School	1.707***	1.783***	1.565***
Bachelor Degree	2.769***	2.696***	2.469***
Professional Degree	2.369***	2.473***	2.192***
Post-graduate	3.018***	3.021***	2.825***
Living in "falling behind" state	0.349***	0.317***	0.246***
Living in "catching-up" state	-0.005	-0.039*	0.090***
Living in "winner" state	0.532***	0.435***	0.504***
Living in 1980 in "falling behind" state	0.117***	0.108***	0.113***
Living in 1980 in "catching-up" state	-0.240***	-0.207***	-0.107***
Living in 1980 in "winner" state	-0.257***	-0.173***	-0.166***
Period stayed in the U.S. (month)	-0.005***	-0.003**	-0.005***
Non-working time spent in the U.S (month)	0.002	0.002*	0.002*
Period stayed in the U.S.(month) squared	0.000***	0.000***	0.000***
Living in 1980 in "falling behind" state*Months stayed in the U.S.		-0.001	-0.002
Living in 1980 in "catching-up" state*Months stayed in the U.S.		-0.005**	-0.006**
Living in 1980 in "winner" state*Months stayed in the U.S.		-0.005	-0.006
Period lived in current residence (month)			0.000***
Constant	5.781***	6.431***	5.899***
	R-squared=0.2054 N=94767	R-squared=0.2531 N=56992	R-squared=0.2145 N=42560

Note: The dependent variable is a logarithm of an individual's income per month.
P-values are based on (White/Huber) heteroskedasticity robust standard errors.
***, **, * indicate statistical significance on 1%, 5%, 10% level respectively.
Estimates (2) are performed for a model with an age interval 30-65.

Data source: ENADID (1997).

Table 3. Multinomial logit estimates of a type of work. .

	Relative Risk Ratio	P-values
Laborer/Farm worker		
Socio-economic status (close to highest)	1.069	0.039

Socio-economic status (upper-middle)	0.977	0.523
Socio-economic status (lower-middle)	0.918	0.083
Socio-economic status (close to lowest)	1.018	0.842
Socio-economic status (lowest)	1.034	0.861
Sex (female)	0.092	0.000
Age	0.992	0.000
Preschool	0.302	0.005
Primary	0.309	0.000
Secondary	0.072	0.000
High School	0.020	0.000
Bachelor Degree	0.003	0.000
Professional Degree	0.005	0.000
Post-graduate	0.000	1.000
Married	0.996	0.926
Partner of a head of a family	1.621	0.000
Son or Daughter of a head of a family	1.428	0.000
Other relationship	0.924	0.176
Living in "falling behind" state	0.637	0.000
Living in "catching-up" state	0.896	0.003
Living in "winner" state	0.408	0.000
Living in 1980 in "falling behind" state	1.103	0.014
Living in 1980 in "catching-up" state	1.280	0.000
Living in 1980 in "winner" state	1.425	0.000
Period stayed in the U.S. (month)	1.004	0.031
Non-working time spent in the U.S (month)	1.003	0.559
Employer with employees		
Socio-economic status (close to highest)	0.757	0.000
Socio-economic status (upper-middle)	0.707	0.000
Socio-economic status (lower-middle)	0.514	0.000
Socio-economic status (close to lowest)	0.893	0.454
Socio-economic status (lowest)	0.745	0.395
Sex (female)	0.380	0.000
Age	1.054	0.000
Preschool	1.717	0.501
Primary	1.558	0.110
Secondary	1.574	0.105
High School	2.370	0.002
Bachelor Degree	0.488	0.041
Professional Degree	2.773	0.000
Post-graduate	1.399	0.278
Married	0.760	0.000
Partner of a head of a family	1.344	0.001
Son or Daughter of a head of a family	0.529	0.000
Other relationship	0.456	0.000
Living in "falling behind" state	0.728	0.000
Living in "catching-up" state	1.222	0.001
Living in "winner" state	0.937	0.249
Living in 1980 in "falling behind" state	1.109	0.050
Living in 1980 in "catching-up" state	0.881	0.035
Living in 1980 in "winner" state	1.447	0.000
Period stayed in the U.S. (month)	1.011	0.000
Non-working time spent in the U.S (month)	1.010	0.000
Self-employed		
Socio-economic status (close to highest)	1.097	0.000

Socio-economic status (upper-middle)	1.133	0.000
Socio-economic status (lower-middle)	1.023	0.497
Socio-economic status (close to lowest)	0.928	0.237
Socio-economic status (lowest)	0.856	0.240
Sex (female)	0.743	0.000
Age	1.040	0.000
Preschool	0.476	0.020
Primary	0.555	0.000
Secondary	0.286	0.000
High School	0.234	0.000
Bachelor Degree	0.040	0.000
Professional Degree	0.164	0.000
Post-graduate	0.095	0.000
Married	0.852	0.000
Partner of a head of a family	1.972	0.000
Son or Daughter of a head of a family	0.971	0.328
Other relationship	0.750	0.000
Living in "falling behind" state	0.783	0.000
Living in "catching-up" state	0.922	0.001
Living in "winner" state	0.560	0.000
Living in 1980 in "falling behind" state	1.023	0.327
Living in 1980 in "catching-up" state	1.090	0.000
Living in 1980 in "winner" state	1.125	0.010
Period stayed in the U.S. (month)	1.008	0.000
Non-working time spent in the U.S (month)	1.002	0.328
Contract worker		
Socio-economic status (close to highest)	1.171	0.004
Socio-economic status (upper-middle)	1.214	0.002
Socio-economic status (lower-middle)	0.791	0.014
Socio-economic status (close to lowest)	1.218	0.188
Socio-economic status (lowest)	0.239	0.045
Sex (female)	0.613	0.000
Age	1.000	0.891
Preschool	0.168	0.083
Primary	0.357	0.000
Secondary	0.129	0.000
High School	0.079	0.000
Bachelor Degree	0.025	0.000
Professional Degree	0.031	0.000
Post-graduate	0.015	0.000
Married	1.159	0.041
Partner of a head of a family	2.486	0.000
Son or Daughter of a head of a family	0.943	0.468
Other relationship	0.925	0.417
Living in "falling behind" state	0.764	0.007
Living in "catching-up" state	1.475	0.000
Living in "winner" state	1.190	0.012
Living in 1980 in "falling behind" state	0.759	0.000
Living in 1980 in "catching-up" state	0.829	0.005
Living in 1980 in "winner" state	2.255	0.000
Period stayed in the U.S. (month)	1.002	0.555
Non-working time spent in the U.S (month)	0.980	0.330
Non-paid worker in business or family farm		
Socio-economic status (close to highest)	1.131	0.000

Socio-economic status (upper-middle)	1.345	0.000
Socio-economic status (lower-middle)	1.180	0.002
Socio-economic status (close to lowest)	0.975	0.820
Socio-economic status (lowest)	0.236	0.002
Sex (female)	0.945	0.128
Age	1.013	0.000
Preschool	0.383	0.100
Primary	0.465	0.000
Secondary	0.150	0.000
High School	0.137	0.000
Bachelor Degree	0.018	0.000
Professional Degree	0.079	0.000
Post-graduate	0.017	0.000
Married	1.003	0.948
Partner of a head of a family	16.690	0.000
Son or Daughter of a head of a family	10.050	0.000
Other relationship	4.789	0.000
Living in "falling behind" state	0.511	0.000
Living in "catching-up" state	0.892	0.003
Living in "winner" state	0.467	0.000
Living in 1980 in "falling behind" state	0.799	0.000
Living in 1980 in "catching-up" state	1.307	0.000
Living in 1980 in "winner" state	1.088	0.316
Period stayed in the U.S. (month)	1.010	0.000
Non-working time spent in the U.S (month)	1.004	0.398
Log likelihood	-105175.79	
N	98525	
Prob>chi2	0	
Pseudo R2	0.1388	
Note: The dependent variable is type of employment and the omitted category is being an employee.		

Data source: ENADID (1997).