

Transferability of Skills, Income Growth and Labor Market Outcomes of Recent Immigrants in the United States

Karla Diaz Hadzisadikovic*

* This paper is part of the author's Ph.D. Dissertation in the Program in Economics and Education at Columbia University. The author is grateful to Profs. Francisco Rivera-Batiz, Luis Huerta, Thomas Bailey and Ethan Cohen for their comments and suggestions on previous drafts. Thanks is also given to the participants of a workshop at Teachers College, Columbia University.

Transferability of Skills, Income Growth and Labor Market Outcomes of Recent Immigrants in the United States

Karla Diaz Hadzisadikovic

ABSTRACT

This paper analyzes how immigrants' individual and home country characteristics affect and determine their labor market participation, returns to education and wages in the United States (U.S.), using data from the 2003 New Immigrant Survey. Two sets of transferable skills are important in the determination of employment and wages for immigrants in the U.S. First are observed, visible characteristics of the migrant, and include education, experience, English-language skills, etc. The second set includes skills that are not easily observed, such as drive or motivation. The latter, by their nature, are not readily visible or observed, whether by employers or by the econometrician, and the previous literature, while emphasizing their potential importance, has not been able to identify precisely their role on immigrant labor market success. This paper adds to the literature on transferable skills of immigrants by using wages from abroad (a unique feature of the New Immigrant Survey) in addition to education, experience, English language proficiency, etc. as a measure of the transferable skills of immigrants. Wages abroad contribute to measuring transferable skills when compared to measures based solely on observed characteristics such as education, age, English proficiency, etc. because wages received abroad by migrants are likely to reflect unobserved, but transferable, skills such as drive or motivation.

This paper also examines the role played by immigrant visa categories, whether based on economic factors (such as employment preferences) or non-economic forces (such as refugee status) on the labor market outcomes of immigrants in the U.S. This is directly relevant to the issue of transferable skills because one could hypothesize that economic migrants have a stronger drive and motivation to succeed in the labor market than non-economic migrants. This would imply that, holding constant education, experience, English proficiency, etc., the impact of wages abroad on wages in the U.S. would be stronger for economic migrants.

The paper finds that for both men and women wages earned abroad only have an effect on economic-visa migrants' U.S. wages, when holding other variables constant (including education, English proficiency, etc.). This suggests that the unobserved skills of non-economic-visa migrants --as reflected by their wages at home--are either too low or non-transferable to the American labor market. On the other hand, economic migrants appear to have strong attitudinal/motivational characteristics that make them more successful in U.S. labor markets, holding other things constant. Additionally, the effect of wages earned abroad on wages earned in the U.S. is higher for women than for men. In fact, the absolute magnitude of the effect for women is almost twice the size of the effect for men. Additional results on the impact of various migrant characteristics on their labor force participation rates in the U.S. are presented in the paper, results that also vary significantly on the basis of gender and by immigration visa category.

Transferability of Skills, Income Growth and Labor Market Outcomes of Recent Immigrants in the United States

I. Introduction

The proportion of skills immigrants can transfer to the United States (U.S.) or any other destination country affects their initial income. When immigrants come to the U.S. or any other country, they bring with them sets of skills acquired in a different social, cultural, and economic context. These skills derive from, and include aspects of education, language, and past experiences, in addition to their culture, customs and networks. Since these factors may vary according to the individual and their country of origin, it is rare that the skill sets immigrants bring to the U.S. are fully transferrable or can be equally compensated for in the U.S. labor market context, especially in the case of adult immigrants. As Jasso, Rosenzweig, and Smith (2002) have noted, the degree of transferability of skills and the extent to which they are rewarded in the U. S., is therefore an essential question in the context of analyzing the economic status of immigrants. The purpose of this study is to measure the skills that recently-arrived adult immigrants bring into the U.S., their transferability, and their labor market impact.

The issue of how immigrants adapt to their host country labor market and society is one that has been debated for centuries. Social scientists and economists, in particular, have indeed studied the issue of how immigrants adjust or assimilate to their host country society for a long time [see Borjas (1987), Borjas and Bratberg (1996), Duleep and Regets (1996), Chiswick (1999), Chiswick and Miller (2009, 2012), and Haley and Taengnoi (2011)]. Perennially, the extent to which immigrants assimilate has been one of the key political issues in the U.S. and other countries. Fears that immigrants will become an underclass and a burden for native-born workers permeate the views of some, while others argue that most immigrants fully assimilate to their host countries over time, experience substantial progress, and make substantial contributions to their host countries.

The New Immigrant Survey offers a unique opportunity for exploring the skill transferability of immigrants, because it is the only publicly-available and representative dataset that provides documented immigrants' wage information before and after immigration to the U.S. The New Immigrant Survey

questionnaire asks immigrants a battery of questions regarding their situation before entering the U.S., back in their country of origin. This allows for a more careful study of the extent of immigrants' skill transferability and the degree to which assimilation has occurred. This paper examines immigrant transferability in the U.S. using the New Immigrant Survey.. An analysis of immigrant labor force participation and wages in the U.S. is carried out examining specifically the role that wages abroad have on U.S. labor market outcomes.

The paper pays particular attention at an issue rarely discussed in the previous literature: how visa/immigration categories affect immigrant labor market outcomes. There are different channels through which someone can (legally or illegally) immigrate to the U.S., which includes family ties, employment or skill preferences, protection for refugees, etc. Some immigrants, therefore, are likely to be seeking economic improvement, that is, better employment opportunities or higher wages, sometimes referred to as economic migrants or economic-visa related migrants. However, immigrants often seek a better life by moving to a safer country, by reuniting with family, by supporting the spouse with household work, while he or she goes to a better-paying job in the U.S., or by improving their quality of education. These are often called non-economic migrants or non-economic visa-related migrants. These two groups of immigrants have different characteristics. Indeed, those U.S. immigrants who arrive with family-related visa categories are less likely to be employed than those with other types of visas such as those with employment preference status, refugee and legalization status visas (See Figure 1). This paper examines the extent to which visa categories matter in determining the economic progress of immigrants. Whether immigrants with economic and non-economic visas perform differently in the labor market is tested. There is also an analysis of whether the level of transferable skills is different for these two groups.

The remainder of this paper is organized as follows: Section 2 presents a brief literature review on skill transferability of immigrants; Section 3 presents the summary statistics of the New Immigrant Survey. The next 3 sections discuss the results from the labor participation analysis, wage determinants for immigrants and their skill transferability. Section 7 provides a conclusion concerning the study questions and the key findings.

II. Background and Data Set

Transferable skills are those skills that immigrants have acquired through education and experience in the country of origin, and are typically compensated for in the labor market of their country of origin, but due to differences between the U.S. and the country of origin, these skills are not fully compensated for or utilized by the immigrant in the American labor market. In the immigration literature there have been different approaches used to measure the skill transferability of immigrants in the U.S.

Duleep and Regets (1996) used initial wages and income growth to show that the decline in initial wages of immigrants, relative to natives, is not due to the lower quality of immigrants, but rather to their lower level of transferable skills. They found the newer cohorts experience faster income growth than older cohorts, and they argued that since positive income growth could not be attributed to lower immigrant skills, that the cause of lower initial wages must be lower transferable skills.

Chiswick and Miller (2009) measured the level of skill transferability of immigrants by identifying whether immigrants were over or undereducated in their positions relative to the mean level of education required for the current held job. They found that the more experiences abroad they possessed the more likely they were to be mismatched in the skill requirements of the job. Chiswick and Miller attributed this result to the employer's imperfect information on the value of skills acquired in foreign countries. Over-education and under-education were found to be affected by the country of origin and the immigrants' English-language skills. Haley and Taengnoi (2011) used the effect of pre-immigration education and experience on wages (including interactions with the country of origin) to measure skill transferability, and focused only on high-skilled workers. They found each year of education abroad increased the earnings of immigrants from Japan and English-speaking developed countries by 10%. They also found that post-immigration education had a larger effect on immigrants from developing countries than from English-speaking developed countries.

This paper uses the New Immigrant Survey to explore the skill transferability of immigrants. The survey is unique because in addition to wages in the U.S., it provides documented immigrants' wage information in their source country, before immigration. This allows one to measure skills transferability

separately from the selectivity traits measured by the observed characteristics of the migrants, such as their education and language skills. In fact, wages abroad may reflect unobservable characteristics that are not reflected in education, experience, etc.

The New Immigrant Survey consists of a nationally representative sample of 8,573 respondents who were selected from administrative records that the U.S. government collects on new immigrants through the U.S. Citizenship and Naturalization Service (USCIS).¹ The data on the first and only available cohort to this date was collected between May and November 2003. The data set consists of two samples, adults and children.² The Survey is the only publicly-available, representative dataset that provides documented immigrants' wage information before and after immigration to the U.S. Additionally, the Survey questionnaire asks immigrants a battery of questions regarding their situation before entering the U.S., back in their country of origin. This allows a more careful study of immigrant skill transferability and assimilation in the U.S.

A. Summary Statistics

Table 1 shows the weighted summary statistics of the full adult sample by employment status in the U.S. Fifty-four percent of the sample did not report earning any wages in the U.S. Those who were employed earned an average of \$725 per week and worked 46 weeks per year. Forty percent of those employed in the U.S. were employed abroad, while only 35% of those not currently working were employed abroad.

The 18.5% of the sample who attended school in the U.S. had an average of 4.5 years of schooling abroad. The data reveal a negative relationship between years of schooling in the U.S. and years of schooling abroad, suggesting that education in the U.S. is a substitute for education abroad. Immigrants employed in the U.S. had an average of 11.7 years of education abroad and .08 years of education obtained in the U.S. Even though the sample consisted of individuals who had recently become

¹ 12,500 immigrants were initially selected for the sample, but only 8,573 completed the interviews (a 68.6% response rate).

² See Jasso, Massey, Rosenzweig, and Smith (In press) for a detailed description of the New Immigrant Survey.

legal permanent residents, most of them had spent at least some time in the U.S. Those who were employed had an average of 3 more years in the U.S. than those who were unemployed.

Because English would be considered one of the most easily transferable skills to the U.S., it was one of the most important skills considered in the analysis below. The English variable was decomposed into four categories: a native English speaker was defined as one who came from a country where English was an official language and the individual listed English as one of the languages he or she spoke; a non-native English speaker was defined as one who reported speaking English in the NIS survey, but English was not an official language in his or her country of origin; an individual who did not speak English was defined as one who did not list English as one of the languages he or she spoke;³ the fourth category was for individuals who did not speak English, but who had worked or lived in an English-speaking country to control for the possibility of having had previous experience in an English-speaking country, or that at least there was minimal knowledge of the English language, but not enough to be listed in the survey. Only 2.5% of the sample fell into this last category. About 46.5% of those who were employed were English-speakers compared to only 31.6% among the unemployed. Native and non-native English speakers were more likely to be employed than those who did not speak the language.

Employed immigrants, as well as unemployed immigrants were more likely to have obtained legal permanent status through marriage to a U.S. citizen or to a legal permanent resident. About 49% of those employed had some relationship in the U.S. (such as a spouse, parent, child or another relative) compared to 69% among the unemployed. About 74% of immigrants with employment preferences or those who were refugees were employed, while 78% of those who were legal immigrants were employed. While the sample were mostly made up of principal immigrants, under some visa categories, such as employment preference visa status, the principal immigrant can bring his or her spouse to the U.S., it was

³ The NIS survey allows respondents to list up to five languages. Given that English is considered a universal language and the survey most likely took place in the United States, it was assumed that if English was not among the top five languages reported by the respondent, that the respondent was not well versed in English.

not necessarily expected that all immigrants with employment preference visas would be employed.⁴

About 9.5% of those employed and 13.6% of those unemployed were spouses of principals. A green card adjustment occurs when the temporary or visiting U.S. immigrant decides to apply for permanent residence status while in the U.S., therefore these individuals may have more experience or assimilation time in the U.S. than those who apply while outside the U.S., possibly making them more likely to be employed in the U.S. - 73% of those employed had a green card adjustment compared to only 39% among the unemployed.

In separating the sample further according to gender, more differences among these groups were evident (see Table 2). Only 42% of women were employed compared to almost 70% of men. Those women who were employed earned less than men by more than \$94 per week, even though men only worked one more week per year than women, on average. Women who were employed in the U.S. used to earn \$27 more abroad than women who were unemployed in the U.S., but were employed abroad. The main difference between wages earned abroad and wages earned in the U.S. comes from unemployed men. Employed men used to earn less than men who were unemployed in the U.S.⁵

Employed men had the most years of education abroad, followed by employed women. Unemployed men had the most years of education in the U.S., while employed women had the least amount of years of education in the U.S. Less than half of men and women with no education or 1 to 5 years of education were employed. In contrast, almost 74% of men with 20 years of education or more were employed.

Most of the individuals in the sample did not speak English, but this group was also less likely to be employed, regardless of gender. Those who did speak English, but were not native speakers were the respondents most likely to be employed (53.6% of women and 77.8% of men). Individuals who did not speak English, but who had worked in an English-speaking country, were the group least likely to be employed, regardless of gender.

⁴ In addition, once a person obtains legal permanent resident status, the individual does not need to remain employed with the sponsor to remain in the country legally.

⁵ These figures exclude outliers of earnings larger than \$4,800 per week.

III. Labor Market Participation

A. Full Sample Results

This section presents the results of the determinants of immigrant labor force participation in the U.S. A later section reports the determinants of wages.

Assume that the reservation wage of an individual depends on individual and their country of origin characteristics. If the reservation wage is below the offered wage, the individual decides not to work, and wages are not observed:

$$(1) \quad Y = Y_2^* \text{ if } Y_1^* > 0 \text{ and}$$

$$Y = \text{missing if } Y_1^* \leq 0 ,$$

where Y_1^* is the reservation wage of the individual and Y_2^* is the actual wages for those who work. One does not observe the reservation price, but only whether the individual works or not.

Table 3 reports the probit estimates and marginal effects of equations of the form

$$(2) \quad F(x) = \Pr(y = 1 | x) = \int_{-\infty}^{x'\beta} \phi(t) dt = \Phi(x'\beta) = \int_{-\infty}^x \frac{1}{\sqrt{2\pi}} \exp\left(-\frac{1}{2}(x)^2\right) dx$$

where $\Phi(x'\beta)$ is the cumulative density function for the standard normal and β is the parameter of interest. An individual was considered unemployed if he or she did not report receiving wages in the U.S. during the interview. This group may have included those individuals not seeking employment because they were homemakers, disabled persons, or students. A dummy variable was included for student status, and retired individuals were excluded from the analysis. The sample was limited to individuals whose American job took place in the U.S.⁶ and who were between 18 and 65 years of age. The full sample consisted of 7,890 observations.

⁶ The survey asks the respondent where each job took place, even when asking specifically about jobs in the U.S. In 3% of the cases, the answer was not the United States.

Column 1 in Table 3 displays the probit results and the marginal effects that control for country of origin (aggregated by region), race, education, experience, gender, years in the U.S., years of unemployment⁷, whether the individual had a job abroad, and immigration-related variables.

The immigration-related variables were used to identify whether the individual's initial motivation for migration was for purposes of family reunification/safety or better economic returns. A non-economic-visa migrant was assumed to be one who migrated through a family preference or refugee visa, while an economic-visa migrant was one who migrated through employment preference or diversity visa or arrived in the U.S. illegally.⁸ Spouses of principals may be tied-movers and green card adjustments are required for those who apply for permanent residence once they are already living (legally and temporarily) in the U.S.. It is possible that non-economic-visa migrants are less likely to be employed if the main motive to migrate is not directly economic gain, and the same could be assumed for tied movers.

Table 3 shows that individuals who had greater than 12 years of education were more likely to be employed than those without any education, holding other things constant. Females were 23% less likely to be employed, *ceteris paribus*. Experience had a positive effect on employment, as well as years in the U.S. Immigrants from Western Europe, excluding the United Kingdom were more likely to be employed in the U.S. than developed English-speaking countries. Immigrants from all other regions did not show any significant differences in terms of affecting their probability of employment.

As predicted, non-economic-visa migrants as well as spouses of principals were less likely to be employed, while those who adjusted their immigration status after they arrived in the U.S. were more likely to be employed.⁹

⁷ If the individual did not work abroad, then this variable measured the time since leaving school. This variable could be highly correlated to experience, but only for those individuals unemployed abroad who were currently unemployed in the United States. However, both variables, experience and years of unemployment, were always statistically significant in these regressions.

⁸ Although true motivation cannot be fully assumed, the visa category implies some motivation, at least initially. Immigrants with employment preference or diversity visas and those who were illegally in the U.S. were mainly economically motivated to immigrate. Immigrants that had family-related visas, for purposes such as marriage, were not necessarily economic migrants, or at least not primarily.

⁹ The name of the dummy variable in the tables is "Non-economic migrant"

The analysis included some country of origin characteristics as explanatory variables. These variables were not expected to have an effect on employment in the U.S. directly, but the log of GDP per capita, average schooling and unemployment rates may capture information that country fixed effects may not, since they may vary by year of immigration. These variables were included in the probit results reports in the second column. Interestingly, as the GDP per capita of the country of origin increases, the likelihood of being employed in the U.S. decreases, and the higher the unemployment rate abroad, the more likely the immigrant was to be employed in the U.S. Although paradoxical, these results may be explained by the fact that those who come to the U.S. from countries with higher unemployment rates or lower GDP per capita may be more likely to be in greater economic need when they leave their home countries. Therefore, they may be more likely to seek quick employment opportunities in the U.S. (their reservation wages lower, holding other things constant)

Finally, in column (3) the English-speaking dummies were added to the specification, in addition to marital status and student status. Speaking English, holding country of origin constant, had no effect on the probability of employment.

B. Results by Gender

Men. Table 4 presents the probit results and marginal effects for the male sample only. Among men, education did not make a difference in the probability of employment for all categories compared to those without education. Experience and years in the U.S. had positive effects on the probability of employment, while years of unemployment and being unemployed abroad had negative effects on employment. Region of origin has no effect on employment.

Among men, non-economic-visa migrants and husbands of principals were less likely to be employed, while men who had their immigration status adjusted were more likely to be employed. Country-level characteristics, added in column (2), did not have an effect on the probability of employment. English skills were found to have no effect on the employment of men (column (3)). Holding English skills, student status, country-level characteristics and marital status constant, men who

had children under the age of six were less likely to work, while the total number of children had no effect on employment.

Women. Table 5 presents the results for women. In contrast to men, women's education had a strong, positive effect on their employment in the U.S.. Women with 1 to 6 years of education were 14% more likely to be employed than those without education, and the probability increased by years of education up to 24% for those with 20 years of education or more. After controlling for other characteristics, such as the selection variables, English ability, student status and country-level indicators, education of less than 12 years became statistically insignificant, but having 13 years of education or more still had a positive effect on employment.

Similarly to the male sample, experience and years in the U.S. had a positive effect on employment. In contrast to men, race had no effect on women's employment status in the U.S., and this did not change after the inclusion of country-level characteristics. Women who had emigrated from Western Europe were more likely to be employed than women who come from English-speaking developed countries.

The selection variables confirm that, as it was the case among men, women with family preferences or refugee visas (non-economic-visa migrants) and tied movers (wives of principals) were less likely to be employed in the U.S., as it seems that employment was not the main motivation for migration for this group of women. The probability of employment decreases with the numbers of children under the age of six for women, a variable that remained negative and statistically significant in all specifications.

In contrast to the male sample, country-level characteristics were all statistically significant for women. The likelihood of employment decreased as the level of GDP per capita and the unemployment rate increased. As noted earlier, these variables may reflect socioeconomic conditions in source countries before the migrant left home. The greater economic need of migrants coming from high-unemployment, low per-capita income countries may make them more likely to find quick employment opportunities in the United States, independently of their education or other characteristics.

Similar to men, English skills had no effect on the probability of employment, but marital status did (column 3). Divorced women, separated women, those women not married but living together and single women were more likely to be employed than married women. The effect of numbers of children under the age of six did not change when marital status was added to the specification.

The results for immigrant men and women showed that their labor market participation was different in terms of some aspects of their education, experience, unemployment situation abroad, immigration situation and country of origin. For men, experience appeared more important, while education appeared more important for determining women's employment. Numbers of children under the age of six affected both men and women negatively, but total number of children only affected men (positively), but only if other characteristics, such as marital status, were ignored. And while single men were less likely to be employed, single women were more likely to be employed, holding other things constant.

IV. Wage Determinants and Returns to Education

A classic, Mincerian wage is estimated to determine the role of various explanatory variables on immigrant earnings. Note that one of the main purposes of this paper, made possible by the use of the New Immigrant Survey, is to examine the role played by immigrant wages abroad on their wages in the U.S. Therefore, the following equation is estimated::

$$(2) \quad LnW_{ic}^u = \alpha LnW_{ic}^a + \beta X_{ic} + \gamma C_c + \varepsilon_{ic}$$

where LnW_{ic}^u and LnW_{ic}^a are log of wages in the United States and abroad for individual i from country c , respectively. X_{ic} is a set of individual characteristics such as gender and education for individual i in country c , C_c is a set of country level characteristics such as log of GDP and average level of education for country c , and ε_{ic} is the individuals error term.

This equation could suffer from sample selection bias since U.S. wages are observed only if the immigrant has decided to work or if he or she was able to find a job. In order to address this issue, the paper uses the Heckman selection method.

A. Maximum Likelihood Heckman Selection Model

Wages of immigrants in the United States can be modeled by two latent dependent variables models:

$$(3) \quad Y_1^* = \alpha Z + \varepsilon_1$$

$$(4) \quad Y_2^* = \beta X + \varepsilon_2$$

Equation (4) is the selection equation and equation (3) is the outcome equation. \mathbf{X} and \mathbf{Z} are sets of individual characteristics, not necessarily exclusive of each other, but with at least one explanatory variable in equation (4) that does not affect equation (3). Because one only observes Y_2^* if $Y_1^* > 0$, which indicates market labor participation, the observed equation becomes

$$(5) \quad Y = Y_2^* \text{ if } Y_1^* > 0 \text{ and } Y = \text{missing if } Y_1^* \leq 0 ,$$

and the probability of participating in the labor market is $pr(z_i = 1) = \Phi(w_i' \alpha)$. Therefore the expected value of y (individuals wages), conditional on participation ($z = 1$) and on individual characteristics (x_i) is

$$(6) \quad \begin{aligned} E(y_i | z = 1, x_i) &= x_i' \beta + E(\varepsilon_{1i} | z_i = 1) \\ &= x_i' \beta + E(\varepsilon_{1i} | \varepsilon_{2i} > w_i' \alpha) \\ &= x_i' \beta + \rho \sigma \frac{\phi(w_i' \alpha)}{\Phi(w_i' \alpha)} \text{ since } E(\varepsilon_{1i} | \varepsilon_{2i} > w_i' \alpha) = \rho \sigma \frac{\phi(w_i' \alpha)}{\Phi(w_i' \alpha)} . \end{aligned}$$

$\frac{\phi(w_i' \alpha)}{\Phi(w_i' \alpha)}$ is the Inverse Mills ratio and it is always positive, therefore the sign of the bias depends

on the covariance $\rho \sigma$, where ρ is the correlation between ε_1 and ε_2 , and σ is the variance of ε_1 , which

was arbitrarily set to 1. If $\rho\sigma = 0$, this would indicate that equations (3) and (4) are independent of each other and that there is no selection bias.

. To implement the Heckman method in a robust way, one needs to find explanatory variables that affect the selection equation without directly affecting the wage equation. Based on previous literature, the number of children in the person's household, the number of children under the age of six and marital status were the variables included in the selection equation but not the wage equation.

For the wage analysis, the sample was limited to individuals who reported positive wages in the U.S., whose job was in the U.S. and who were 18 to 65 years of age at the time of the survey. Wages in the U.S., the dependent variable, were weekly wages reported to the interviewer earned in their most recent job in the US. Weekly wages were calculated based on the amount earned, the frequency of the paychecks and the number of weeks that was worked per year.

In addition to the standard controls for all wage equations (education, experience, experience squared, gender and race) and for wage equations for immigrants (years in the U.S., years in the U.S. squared, country of origin), the following were added: whether the individual was a native or non-native English speaker or did not speak English; country-level characteristics; immigrant type and other visa-related variables; and whether their highest degree was obtained in the U.S.

B. Full Sample Results

Table 6 present the Heckman FIML estimation results for the full sample. At the bottom of the table, the statistics sigma, rho and lambda are reported as well. As previously discussed, rho (ρ) is the statistic of interest to measure the extent of selectivity bias in the Heckman model.

The estimated marginal effects from the Heckman equation are reported in Table 6, column (a). Although those immigrants with 12 years of education or less did not earn any more than those with no education, those with more than 12 years of education earned 30% more than those with no education. The premium for 20 years of education was 61%. Females earned almost 40% less than men. As expected, the impact of experience was positive, but although experience-squared was negative, it was virtually zero. Years in the U. S., a measure of assimilation, also increased wages but at a decreasing rate.

Holding other things constant, immigrants from all regions earned less than immigrants from developed English-speaking countries, and the largest difference was observed between Latin America and the Caribbean and English-speaking developed countries.

In column (2a), the English variable was added, which shows that those who did not speak English earned less than native English speakers, even after controlling for country of origin, but those who were not native English speakers or who had worked in an English-speaking country, but did not speak English, did not earn differently from native English speakers. Earning a degree in the U.S., another sign of assimilation, had no effect on wages. The difference observed earlier between immigrants from English-speaking developed countries and Western Europe, Asia and Africa appeared to be due to the differences in English skills. Once controlled for English skills, the difference disappeared, and only those immigrants from Eastern Europe and Latin America and the Caribbean earned less than immigrants from English-speaking developed countries.

In column (3a), visa-related variables were added. These indirectly measure the motivation (economic or non-economic) to migrate to the U.S. Non-economic-visa migrants earned about 24% less than economic-visa migrants and among immigrants who worked, spouses of principals earned about 10% less than principals. Those immigrants that applied for immigration after entering the country earned 17% more than those who applied for their immigrant visas while still living outside the U.S.

Including these variables eliminated the effect of years in the U.S., a measure of assimilation, on wages. This suggests that visa differences among migrants, and/or visa changes over time, such as Green Card adjustment, may lie behind the positive assimilation wage effects previously determined in the literature. In that literature, the higher wages obtained by migrants have been ascribed to direct labor market forces, such as learning and search effects. This paper suggests that immigration policy, through its impact on visa adjustments, may also explain the greater opportunities migrants may obtain as their length in the U.S. rises, thus accounting for some of their economic progress. Also, note that immigrants from Asia and Oceania are no longer differentiated from those coming from English-speaking developed

countries. This may be because most immigrants from Asia are considered economic-visa migrants and without controlling for immigrant type the region dummy may have been acting as a proxy for this.

The statistic *rho* was not significant, which implied that OLS estimations which suggests that, overall, the error terms of the selection and the wage equations were not correlated.

C. Results by Gender

The results for men and women are presented in Tables 7 and 8, respectively. Holding everything else constant, men and women with at least 13 years of education earned significantly more than their counterparts without education. Women with at least 20 years of education (about 4% of the sample) earned 50% more than women without education, compared to men with the same education (about 5.3% of the sample) who earned 55% more than men without education.

Women's experience (accrued from abroad and in the U.S.) was not compensated for in the American labor market. Men's experience also becomes indistinguishable from zero when immigrant type and other visa-related variables were included in the specification. Years in the U.S., a measure of assimilation, had a positive and significant effect on women and men wages, but the effect was larger for men. However men's assimilation grew at a decreasing rate, while women's assimilation seemed to have a linear relationship with wages.

Having a degree from the U.S. (added in column (2a)) had no effect on women's or men's wages. Men who were not native English speakers or who did not speak English earned 22% and 34% less than men who were native speakers, respectively. This was not the case for women, who were not penalized for not speaking English or not being native English speakers.

Before controlling for English skills, men from Eastern Europe, Asia and Oceania and Africa earned 36%, 32% and 38% less than immigrants from English-speaking developed countries, respectively, but after including English skills, the regional differences are no longer observed.

In columns (3a) immigrant type and other visa-related characteristics were added to the specification. Non-economic-visa migrant men and women earned 27% and 19% less than economic-visa migrants. Being a spouse of a principal had no effect on wages, but those with Green Card adjustments

earned 13% more than those who applied for their migrant visas while abroad. Since the estimated premium paid to migrant men with more than 13 years of education increased in column 4, it seems evident that, at least for the male sample, the non-economic-visa migrant dummy was capturing higher unobserved skills in addition to motivation (for migration). Immigrant men from Latin America and the Caribbean earned the least, compared to immigrants from English speaking developed countries. Men from Eastern Europe and Asia and Oceania also earned less than immigrants from English-speaking developed countries, but the difference in wages was not as large. The difference between immigrant women from Latin America and the Caribbean and English-speaking developed countries was not as large as that observed among men, and the difference was only marginally significant.

Sigma, lambda and rho are reported at the bottom of the tables. The Wald-test rejected the value $\rho=0$ for the female sample, but not for the male sample. The estimated bias for women was estimated to be between -0.152 and -0.162. Women who chose to work earned approximately 15% less than if a random sample from the general immigrant population decided to work.

V. Skill Transferability

This section focuses on a discussion of the results relating to skill transferability. In order to better understand the results of the analysis presented in Table 6 on this issue, which is at the crux of this paper, a more detailed theoretical framework is presented next. The paper then returns to a discussion of the results in Tables 6, 7 and 8.

A. Theoretical Framework

The returns to immigration generally depend on wages abroad, wages in the U.S., direct costs of immigration, and indirect costs of immigration. If the return is higher than the internal discount rate of the individual, immigration occurs. Indirect costs include, but are not limited to, lost wages due to unemployment or underemployment, and investment in new skills; direct costs are the costs of adjustment

with schooling, on-the-job training,¹⁰ language, information, etc. In the long run, the lack of transferable skills affect wages in the U.S. negatively if the immigrant fails to assimilate or does not invest in American-specific skills.

Return to immigration can be defined as

$$(9) \quad r = \frac{W_u - W_a}{c_d + c_i}$$

where r is return to immigration, W_u and W_a are wages in the United States and abroad, respectively, c_d are direct costs associated with migration, which not only include transportation but also investment in training, schooling, language and information, among other costs, and c_i are indirect costs or forgone wages.

Assumption #1

There are two types of immigrants: one with a high level of transferable skills and one with a low level of transferable skills. Immigrants with a high level of skill transferability have lower indirect costs since they are more efficient at migrating and are able to find better jobs in less time than those immigrants with low levels of skill transferability, who probably need to invest in language or other country-specific skills in order to obtain jobs that fit their overall skill set.

Assume that W_{uh} , the wages of immigrants with high levels of skill transferability in the U.S., are 100k percentage higher than W_{ul} , the wages for immigrants with low level of skill transferability, that is $W_{uh} = (1 + k)W_{ul}$. Further assume that indirect costs are a proportion of wages abroad (t) and that the proportion is lower for high skill transferability individuals, that is, $c_i = tW_a$, where $0 \leq t_h \leq t_l \leq 1$. Also assume that direct costs and wages abroad for low and high levels of transferable skills are the same, other things, such as gender, education, industry, etc., being equal. Thus, one can rewrite equation (9) for individuals with high and low levels of transferable skills:

¹⁰ Based on Chiswick (2000)

$$(10a) \quad r_{uh} = \frac{(1+k)W_{ul} - W_a}{c_d + t_h W_a}$$

$$(10b) \quad r_{ul} = \frac{W_{lu} - W_a}{c_d + t_l W_a}$$

Individuals with high transferable skills have higher returns to immigration than immigrants with low transferable skills, making them more likely to migrate.

Assumption #2

Now let us assume that immigrants with high transferable skills also have lower direct costs because they do not have to invest in additional schooling or language. Let λ be the relationship parameter between low and high direct costs: $c_{dh} = (1 + \lambda)c_{dl}$ where $\lambda < 0$.

$$(11) \quad r_h = \frac{(1+k)W_{ul} - W_a}{(1 + \lambda)c_{dl} + t_h W_a}$$

Returns to migration are higher for immigrants with highly transferable skills when direct costs are not proportional to wages, and therefore they are more likely to migrate than persons with low ranking transferable skills.

Assumption #3

So far, it has been assumed that the wages abroad are the same for low and high levels of transferability skills, other things held equal. Suppose now that these wages are not the same. Assume that wages for individuals with low transferable skills are $100k_a$ percent higher than for those with high transferable skills, which may be the case for individuals who have skills that are valued in the USA but

not in their country of origin, then $W_{ah} = \frac{W_{al}}{(1 + k_a)}$ and equation (9) becomes

$$(12) \quad r_h = \frac{(1+k)W_{ul} - \frac{W_{al}}{(1 + k_a)}}{(1 + \lambda)c_{dl} + t_h W_a}$$

The return to immigration is higher for individuals with high transferable skills when these skills are not compensated for as well abroad, as in the U.S., making individuals with high transferable skills more likely to migrate.

If instead, wages for individuals with high transferable skills are $100k_a$ percent higher than for those with low transferable skills, when all other characteristics are equal, then $W_{ah} = (1 + k_a)W_{al}$ and the rate of return equation becomes:

$$(13) \quad r_h = \frac{(1+k)W_{ul} - (1+k_a)W_{al}}{(1+\lambda)c_{dl} + t_h W_a}$$

The rate of return to immigration depends on the ratio of the premium paid over to individuals who have higher transferable skills. If the premium in the U.S., k_u , is higher than the premium paid abroad, k_a , then individuals with higher transferable skills will have a higher return to immigration. If, however, the premium paid abroad is higher, then individuals with lower transferable skills will have a higher incentive to migrate.

B. Methodology and Results

Growth of wages due to immigration is assumed to be determined by individual and country characteristics and affected by the proportion of penalized wages due to immigration. Duleep and Regets (2002) showed that the higher the level of transferable skills the lower the income growth experienced by immigrants. They argued that individuals whose transferable skills are high already start with a higher income and therefore their opportunity cost to invest in more country-specific skills is higher than for those individuals that arrive with lower levels of transferable skills. Therefore immigrants with low levels of transferable skills are more likely to invest in country-specific skills and experience faster wage growth than immigrants with highly transferable skills.

To study skill transferability of recent immigrants, consider the equation

$$(14) \quad \ln W_{usa} - \ln W_{abroad} = \alpha - \beta \ln W_{abroad} + \beta X + \delta C + \varepsilon,$$

where $\ln W_{usa}$ is the log of wages in the United States; $\ln W_{abroad}$ is the log of wages abroad;

$\ln W_{usa} - \ln W_{abroad}$ is income growth; $0 \leq \mathcal{G} \leq 1$ is the initial devaluation of wages due to migration.

Weekly wages abroad are wages reported to the interviewer earned in the last 2 jobs in their country of origin and were converted to PPP prices to render them comparable. Individuals who reported having a job, but were paid in kind were considered to have had earned zero wages, and therefore considered unemployed. It was only a very small percentage of the sample that fell into this category. Wages reported from abroad may have been earned many years before immigrating or many years before the interview was conducted, as a result controls were introduced for the year when the immigrant left his or her last job abroad and how many years had passed between the last year abroad and the current job in the U.S. The use of PPP prices address not only the different cost of living across countries, but prices across years within the same country.

$$(15) \quad \ln W_{usa} - (\ln W_{abroad} - \mathcal{G} \ln W_{abroad}) = \alpha + \beta X + \delta C + \varepsilon$$

is initial income growth and this equation is equivalent to (14).¹¹ X is a vector of individual characteristics and C is a vector of country characteristics. The terms in equations (14) and (15) can be rearranged to obtain:

$$(16) \quad \ln W_{usa} = \alpha + \tau \ln W_{abroad} + \beta X + \varepsilon,$$

where $\tau = 1 - \mathcal{G}$ is the proportion of transferable skills. $\mathcal{G} = 0$ implied that there are no initial devaluations of wages abroad and therefore the skills were 100% transferable ($\tau = 1$).

The additional transferable skills, isolated from observable skills such as education and experience, reflect unobservable skills, such as industry-specific skills, and ability. Higher wages abroad are an indication of higher skills that an American employer may not be able to observe due to imperfect transferability of skills. This why it is important to consider wages earned abroad as an explanatory

¹¹ The difference $\ln W_{usa} - (\ln W_{abroad} - \mathcal{G} \ln W_{abroad})$ was expected to be positive, since income or quality of life improvement is the most important incentive for individuals to migrate, although there are non-pecuniary reasons for migration as well. In my sample, about 80% of the observations showed a positive difference between these two wages.

variable in the equation for U.S. wages when seeking to understand the transferability of skills for immigrants. The New Immigrant Survey allows this to be done and the following are the results.

1. Full Sample Results

Table 6, column (1b), shows that the proportion of transferable skills was positive and estimated to be about 0.031. That is, a 10% increase of income abroad increased income in the U.S. by 0.3%. Using equation 20, it can also be concluded that an increase of 10% in wages abroad decreased wage growth by 9.7%.

Income growth also depends on level of education, gender, and total job experience, among other characteristics. The estimates and marginal effects were very similar to wage results from column (1a). Holding transferable skills constant, level of wages in the U.S. was 31.2% higher for immigrants with 13 to 19 years of education, which was only slightly larger than the 30.2% estimated from the wage equation, not controlling for level of wages abroad. Immigrants with more than 20 years of education earned 61.3% more, holding transferable skills constant. Females with the same level of earning abroad earned 38.6% less than men in the U. S. Experience and years in the U.S. increased wages in the U.S. but at a decreasing rate, holding wages abroad constant. Black immigrants started at a lower level of wages, while Hispanics started at a higher rate than white immigrants. Immigrants from Eastern Europe and Latin America and the Caribbean earned less than immigrant's from English-speaking developed countries. The difference was at least ten percentage points smaller than before controlling for wages abroad.

In column (2), English proficiency and educational degree in the U.S. are added as dummies. The effect of having more than 12 and 20 years of education decreased to 26.1 and 54.7% in column 2b, respectively. Having an educational degree from the U.S. had no effect on wages in the U.S. Only those immigrants who did not speak English and did not work in an English-speaking country prior to immigration earned 21.5% less than English native speakers. The estimated transferable skill went down slightly from 0.032 to 0.030 and it was still statistically significant. Females earn 39.4% less than men with similar wages abroad.

Column (3) presents results controlled for visa type. As previously discussed, a non-economic-visa migrant was defined as one who immigrated with a family-related or refugee visa to the U.S., and an economic-visa migrant was one who used an employment preference, diversity or legalization visa instead. Most estimates remained unchanged, but not all. The effect of wages abroad decreased to 0.027, while years in the U. S. became insignificant. Not speaking English had a penalty of 14%, but the difference was only marginally significant. Degree in the U.S., which was previously not significant was now (only marginally) significant and the difference was estimated to be 9%. Immigrants from Eastern Europe and Latin America and the Caribbean were still the only groups that earned lower initial wages compared to English-speaking developed countries.

Non-economic-visa immigrants initially earn almost 24% less than economic-visa migrants; spouses of principals earn 10% less and those who adjusted their immigration status while in the United States earned 16% more, holding other things constant.

The term ρ , the correlation of the errors of the selection equation and the wage growth equation, was not statistically significant and the Wald test confirmed that $\rho = 0$.

2. Results by Gender

The same Heckman specifications were estimated separately for men and women. Men's proportion of transferable skills was .023, which implies that a 10% increase in wages abroad increases wages in the U.S. by 0.23% and that income growth is penalized by 9.77%, while women's proportion of transferable skills was 0.039.

In column (1b) of Table 7, one can see that men with 13 to 19 years of education earned 27.3% more than men who had no education, holding wages abroad constant, while those with more than 20 years of education earned 55.5% more. Immigrants who did not speak English earned 33% less than native English speakers, but those who did not speak English, but worked in a country, whose official language was English, did not suffer a difference in pay compared to native English speakers. This may be a signal that these types of individuals already have some level of assimilation in another English speaking country and therefore are more prepared when arriving and working in the U.S. than someone

who does not speak English or is not a native speaker. Although having a degree from the U.S. is positively related to initial wages, the effect was only marginally significant. Including additional skills to the equation (English skills) weakened the effect of wages abroad, which was now not different from zero. Therefore only observable skills, such as education, experience and English skills were compensated for in the labor force for new immigrant men that had no transferable skills. This implies as well that income growth for immigrant men should be faster than income growth for immigrant women, since the coefficient on wages abroad for women was not zero.

In column 3, migrant type characteristics were added to the specification. Non-economic-visa migrants had a slower rate of income growth since, holding constant income earned abroad, they had lower earnings in the U.S. The estimated marginal effect of green card adjustment was positive and statistically significant.

Immigrant men from almost every region, except Western Europe, earned significantly less than those immigrants from English-speaking developed countries. The largest gap can be seen in men from Latin America and the Caribbean, followed by men from Eastern Europe.

Table 8 shows the Heckman results for the wage and the income growth equations for females. In the income growth equation, when the log of wages abroad was added, this was positive and statistically significant for all specifications. For women, a 10% increase in wages abroad increased wages in the U.S. by 0.32 to 0.39%. For the female sample, the Heckman specification showed there was a significant selectivity issue when analyzing wages and transferable skills ($p \neq 0$).

In contrast to the male sample, adding wage information to the Heckman specification decreased the effect of education for women with more than 12 years of education. Experience remained insignificant, while years in the U.S. was still positive and statistically significant. Although having been an immigrant abroad (country of job does not match country of origin or country of birth) had no effect on men, it had a positive effect on women's wages and income growth. This, as well as the larger portion of wages abroad transferred to the U.S., may be an indication that women are more positively self-

selected (or less negatively self-selected) than men. For women, neither speaking English, nor having received their college degree, were influential in increasing their initial wages or initial wage growth.

Column (3) added the variables related to immigration status category. Although the results were similar to those for men, the difference between economic and non-economic-visa migrants among women was not as large as those for men (19.4% versus 26.3%). Controlling for immigration type, being the spouse/wife of the principal had no effect on initial wages or initial income growth. These specifications also controlled for region of origin. Compared to English-speaking developed countries, only women from Latin America and the Caribbean earned significantly less.

3. Economic and non-economic-visa migrants.

So far, the results presented have shown that wages in the U.S. differ by immigrant type. It was also shown that wages abroad have no effect on men's wages in the U.S. This section shows how transferable skills may differ by visa-type. The results are presented in Table 9. Without changing the rest of the Heckman specifications and the results yielded before, one can see that wages abroad have different effects for immigrants with the two types of visas. For the full sample, where previous results showed an effect of around 0.03, an increase of 10% in wages abroad increased wages in the U.S. for economic-visa migrants by 0.4%, while the effect of wages abroad for non-economic-visa migrants was half the size and only marginally significant.

For the male sample, the results reported before found no effect of wages abroad on wages in the U.S., but the results disaggregated by immigrant category show that although non-economic-visa migrants are not transferring any skills, as measured by wages abroad, the effect of wages abroad on economic-visa migrants is 0.033. The effect observed for women is even larger. Non-economic-visa migrant women did not have transferable skills (independent of their education and language skills), but holding education, language skills and other characteristics constant, an increase of 10% of wages abroad increased women's wages in the U.S. by 0.6% if they were economic-visa migrants.

VI. Summary and Conclusions

About three percent of the world's population does not live in the countries where they were born, and immigrants tend to move from developing countries to developed countries, mainly to the United States, Canada and Australia. Assimilation of immigrants is a central political issue for these receiving countries. Some fear that immigrants will become an underclass and a burden to the native-born workers, while others argue that immigrants are able to fully assimilate over time and make contributions to the host countries. Immigrants arrive with a set of skills acquired in a different social, cultural and economic context. The proportion of skills that immigrants are able to use to assimilate and to be productive in the U.S. labor market has been the focus of this paper.

There are two sets of transferable skills that one would assume are important in the determination of employment and wages for immigrants in the U.S.. First are observed, visible characteristics of the migrant, and include education, experience, English-language skills, etc. The second set includes skills that are not easily observed, such as drive or motivation. The latter, by their nature, are not readily visible or observed, whether by employers or by the econometrician., and the previous literature, while emphasizing their potential importance, has not been able to identify precisely their role on immigrant labor market success. This paper adds to the literature on transferable skills of immigrants by using wages from abroad (a unique feature of the New Immigrant Survey) in addition to education, experience, English language proficiency, etc. as a measure of the transferable skills of immigrants. Wages abroad contribute to measuring transferable skills when compared to measures based solely on observed characteristics such as education, age, English proficiency, etc. because wages received abroad by migrants are likely to reflect unobserved, but transferable, skills such as drive or motivation.

This paper also examines the role played by immigrant visa categories, whether based on economic factors (such as employment preferences) or non-economic forces (such as refugee status) on the labor market outcomes of immigrants in the U.S. This is directly relevant to the issue of transferable skills because one could hypothesize that economic migrants have a stronger drive and motivation to succeed in the labor market than non-economic migrants. This would imply that, holding constant

education, experience, English proficiency, etc., the impact of wages abroad on wages in the U.S. would be stronger for economic migrants.

The paper finds that for both men and women, wages earned abroad only have an effect on economic-visa migrants' U.S. wages, when holding other variables constant (including education, English proficiency, etc.). This suggests that the unobserved skills of non-economic-visa migrants—as reflected by their wages at home—are either too low or non-transferable to the American labor market. On the other hand, economic migrants appear to have strong attitudinal/motivational characteristics that make them more successful in U.S. labor markets, holding other things constant. In addition the effect of wages earned abroad on wages earned in the U.S. is higher for women than for men. In fact, the absolute magnitude of the effect for women was almost twice the size of the effect for men. Additional results on the impact of various migrant characteristics on their labor force participation rates in the U.S. are presented in the paper, results that also vary significantly on the basis of gender and by immigration visa category.

These results have relevance for current immigration policy debates. Comprehensive immigration policy reforms have emphasized the need to increase the role of economic-related visas, such as those based on employment preferences or skill requirements. Insofar as economic-visa related migrants do appear to have a significant premium in terms of their labor force participation and wages when compared to other migrants, an increased number of legal migrants in this category is likely to have a positive impact on the U.S. economy. Indeed, the findings in this paper suggest that economic-visa related migrants have stronger motivational forces that propel them to greater economic success in the U.S. labor market.

References

- Borjas, G. J. (1987). Self-selection and the earnings of immigrants. *American Economic Review*, 77, 531-53.
- Borjas, G. J. & Bratsberg, B. (1996). Who leaves? The outmigration of the foreign-born. *Review of Economics and Statistics*, 78(1), 165-176.
- Chiswick, B. R. (1999). Are immigrants favorably self-selected? *American Economic Review*, 89 (2), 181-185.
- Chiswick, B. R., & Miller, P. W. (2009). The international transferability of immigrants' human capital. *Economics of Education Review*, 28(2), 162-169.
- Chiswick, B. R., & Miller, P. W. (2012). Negative and positive assimilation, skill transferability, and linguistic distance. *Journal of Human Capital*, 6(1), 35-55.
- Duleep, H. O., & Regets, M. C. (1996). Earnings convergence: Does it matter where immigrants come from or why? *The Canadian Journal of Economics*, 29(1), S130-S134.
- Duleep, H. O., & Regets, M. C. (2002). *The elusive concept of immigrant quality: Evidence from 1970-1990*. (IZA Discussion Paper No. 631). Retrieved March 2008, from <http://ssrn.com/abstract=3129>
- Funkhouser, E. & Trejo, S. J. (1995). The labor market skills of recent male immigrants: evidence from the current population survey. *Industrial and Labor Relations Review*, 48, 792-811
- Haley, M. R., & Taengnoi, S. (2011). The skill transferability of high-skilled US immigrants. *Applied Economics Letters*, 18(7), 633-636
- Heckman, J. J. (1976). The common structure of statistical models in truncation, sample selection and limited dependent variables and a simple estimator for such models. *Annals of Economic Social Measurement*, 5(4), 475-492.
- Heckman, J. J. (1979). Sample selection bias as a specification error. *Econometrica*, 47(1), 53-161.
- Jasso, G., Rosenzweig, M. R., & Smith, J. P. (2002). "The earnings of U.S. immigrants: World skill prices, skill transferability and selectivity."
- Jasso, G., Massey, D. S., Rosenzweig, M. R., & Smith, J.P. (In press). The US New Immigrant Survey: Overview and Preliminary Results based on the New-Immigrant Cohorts of 1996 and 2003 (29-46). In B. Morgan & B. Nicholson (Eds.), *Immigration Research and Statistics Service Workshop on Longitudinal Surveys and Cross-Cultural Survey Design: Workshop Proceedings*. London, UK: Crown Publishing.
- Nawata, K. (1993). A note on the estimation models with sample selection biases. *Economic Letters*, 42, 15-24.

Table 1. Summary Statistics by Employment in the United States

| | <i>Full Sample</i> | | |
|--------------------------------------|--------------------|--------------------|----------------------------|
| | <i>Employed</i> | <i>Unemployed</i> | <i>Percentage Employed</i> |
| Observations | 4,611 | 3,936 | 54.0% |
| <i>Wages</i> | | | |
| Log of Weekly Wages | 6.01 (0.015) | | |
| Weekly Wages | 724.99 (55.202) | | |
| Weeks per Year Worked | 46 (0.258) | | |
| Log of Weekly Wages Abroad | 4.70 (0.054) | 4.33 (0.069) | |
| Weekly Wages Abroad | 323.77 (12.484) | 290.83 (15.218) | |
| Weeks per Year Abroad | 46.11 (0.317) | 46.13 (0.371) | |
| Employed Abroad | 40.2% | 35.6% | |
| <i>Education</i> | | | |
| Education Abroad | 11.68 (0.079) | 10.74 (0.096) | |
| Education in USA | 0.08 (0.007) | 0.09 (0.009) | |
| No Education | 1.2% | 5.3% | 20.2% |
| Less than 6 years | 9.8% | 16.0% | 41.8% |
| 6 - 12 years | 36.9% | 36.1% | 54.5% |
| 13 - 19 years | 46.1% | 38.6% | 58.3% |
| 20 or more | 4.7% | 2.8% | 66.2% |
| Female | 43.9% | 71.0% | |
| Age | 35.71 (0.172) | 42.72 (0.301) | |
| Experience | 22.40 (0.216) | 27.96 (0.339) | |
| Years In USA | 7.02 (0.116) | 4.12 (0.135) | |
| Years Since Last Job/Finished School | 4.52 (0.116) | 7.76 (0.223) | |
| Student | 10.9% | 9.9% | 10.4% |

Table 1. Summary Statistics by Employment in the United States (Continued)

| | <i>Full Sample</i> | | |
|--|--------------------|-------------------|--------------------------------|
| | <i>Employed</i> | <i>Unemployed</i> | <i>Percentage Employed</i> |
| <i>Marital Status</i> | | | |
| Married | 74.2% | 74.0% | 54.0% |
| Living Together | 3.2% | 1.6% | 70.4% |
| Divorced | 2.5% | 1.9% | 60.6% |
| Separated | 2.7% | 2.2% | 58.8% |
| Widowed | 0.8% | 6.5% | 12.8% |
| Single | 16.7% | 13.9% | 58.5% |
| Number of Children | 1.50 (0.028) | 2.28 (0.042) | |
| Number of Children under 6 | 0.32 (0.011) | 0.31 (0.012) | |
| <i>Speaks English</i> | | | |
| Speaks English - Native | 11.4% | 9.3% | 58.2% |
| Speaks English - Non Native | 35.1% | 22.3% | 64.0% |
| Does Not Speak English | 51.5% | 65.8% | 46.9% |
| Does Not Speak English - Worked in English-Speaking Country | 2.0% | 2.6% | 45.9% |
| <i>Country-level Variables</i> | | | |
| Ln(GDP per capita) | 8.37 (0.015) | 8.31 (0.017) | |
| Average years of schooling | 4.72 (0.048) | 4.66 (0.053) | |
| Unemployment Rate | 7.3% | 7.2% | |
| <i>Visa Categories</i> | | | |
| Spouse of US Citizen | 37.1% | 30.7% | 58.6% |
| Spouse of LPR | 1.7% | 3.3% | 37.5% |
| Parent of U.S. Citizen | 3.0% | 22.4% | 13.6% |
| Child of U.S. Citizen | 3.1% | 3.7% | 50.0% |
| Family Fourth Preference | 4.3% | 9.0% | 35.7% |
| Employment Preference | 13.2% | 5.4% | 74.1% |
| Diversity Immigrants | 7.7% | 8.6% | 51.3% |
| Refugee | 9.0% | 3.7% | 74.2% |
| Legalization | 11.6% | 3.7% | 78.5% |
| Green Card Adjustment | 72.7% | 39.4% | 57.4% |
| Spouse of Principal | 9.5% | 13.6% | 11.4% |

Note: Standard deviations are in parenthesis. The third column indicates what percentage of the sample in that category are employed. For example: 9% of employed individuals are refugees (column 1), 3.7% of unemployed individuals are refugees (column 2), and 74.2% of all refugees are employed (column 3).

Table 2. Selected Summary Statistics by Gender

| | <i>Females</i> | | <i>Males</i> | |
|--|--------------------|-------------------|--------------------|-------------------|
| | <i>Employed</i> | <i>Unemployed</i> | <i>Employed</i> | <i>Unemployed</i> |
| Observations | 2,026 | 2,793 | 2,585 | 1,143 |
| <i>Wages</i> | | | | |
| Weekly Wages | 533.59 (61.458) | | 875.35 (85.635) | |
| Weekly Wages Abroad | 267.42 (17.87) | 240.04 (15.62) | 361.74 (16.98) | 380.08 (30.98) |
| Employed Abroad | 36.9% | 31.7% | 42.8% | 45.0% |
| <i>Education</i> | | | | |
| Education Abroad | 11.63 (0.121) | 10.49 (0.117) | 11.72 (0.105) | 11.36 (0.168) |
| Education in USA | 0.07 (0.011) | 0.08 (0.011) | 0.08 (0.008) | 0.10 (0.015) |
| No Education | 1.1% | 6.3% | 1.2% | 3.0% |
| Less than 6 years | 10.8% | 17.0% | 9.1% | 13.6% |
| 6 - 12 years | 35.0% | 35.9% | 38.3% | 36.6% |
| 13 - 19 years | 47.5% | 37.6% | 45.0% | 41.0% |
| 20 or more | 3.9% | 2.2% | 5.3% | 4.2% |
| Experience | 21.85 (0.335) | 26.98 (0.403) | 22.85 (0.281) | 30.44 (0.608) |
| <i>Marital Status</i> | | | | |
| Married | 72.0% | 74.9% | 75.8% | 71.8% |
| Divorced | 3.3% | 2.0% | 1.8% | 1.6% |
| Separated | 4.1% | 2.4% | 1.6% | 1.7% |
| Widowed | 1.4% | 8.0% | 0.3% | 2.6% |
| Single | 16.1% | 11.1% | 17.2% | 20.8% |
| Number of Children | 1.49 (0.044) | 2.30 (0.048) | 1.50 (0.037) | 2.23 (0.081) |
| Number of Children under 6 | 0.25 (0.015) | 0.35 (0.015) | 0.38 (0.016) | 0.23 (0.021) |
| <i>Speaks English</i> | | | | |
| Speaks English - Native | 9.7% | 8.8% | 12.8% | 10.6% |
| Speaks English - Non Native | 37.4% | 22.5% | 33.2% | 21.8% |
| Does Not Speak English | 51.6% | 67.1% | 51.5% | 62.3% |
| Does Not Speak English - Worked in English-Speaking Country | 1.2% | 1.6% | 2.6% | 5.3% |
| <i>Visa Categories</i> | | | | |
| Spouse of US Citizen | 41.2% | 35.6% | 34.0% | 18.6% |
| Spouse of LPR | 2.7% | 4.3% | 0.9% | 1.0% |
| Parent of U.S. Citizen | 3.5% | 21.5% | 2.7% | 24.4% |
| Child of U.S. Citizen | 2.4% | 2.6% | 3.7% | 6.3% |
| Family Fourth Preference | 4.3% | 7.2% | 4.2% | 13.4% |
| Employment Preference | 11.5% | 6.2% | 14.6% | 3.5% |
| Diversity Immigrants | 6.1% | 6.4% | 9.0% | 13.8% |
| Refugee | 8.2% | 3.8% | 9.7% | 3.4% |
| Legalization | 11.2% | 3.9% | 11.9% | 3.2% |
| Green Card Adjustment | 74.2% | 44.5% | 71.5% | 27.1% |
| Spouse of Principal | 11.4% | 13.2% | 8.0% | 14.7% |

Note: Standard deviations are in parenthesis.

Table 3. Probability of Employment in the United States

| | (1) | | (2) | | (3) | |
|--------------------------------|----------------------|------------------------|----------------------|------------------------|----------------------|------------------------|
| | <i>Coefficient</i> | <i>Marginal Effect</i> | <i>Coefficient</i> | <i>Marginal Effect</i> | <i>Coefficient</i> | <i>Marginal Effect</i> |
| <i>Education</i> | | | | | | |
| Less than 6 years | 0.094 (0.166) | 0.028 (0.049) | 0.087 (0.170) | 0.026 (0.050) | 0.064 (0.168) | 0.019 (0.049) |
| 6 - 12 years | 0.226 (0.164) | 0.067 (0.049) | 0.192 (0.168) | 0.057 (0.050) | 0.159 (0.166) | 0.047 (0.049) |
| 13 - 19 years | 0.361 (0.167)** | 0.107 (0.050)** | 0.303 (0.170)* | 0.089 (0.050)* | 0.263 (0.169) | 0.077 (0.050) |
| 20 or more | 0.449 (0.191)** | 0.133 (0.057)** | 0.393 (0.194)** | 0.116 (0.057)** | 0.357 (0.194)* | 0.105 (0.057)* |
| Female | -0.763 (0.039)*** | -0.227 (0.010)*** | -0.783 (0.039)*** | -0.231 (0.010)*** | -0.784 (0.040)*** | -0.230 (0.010)*** |
| Experience | 0.032 (0.006)*** | 0.010 (0.002)*** | 0.034 (0.006)*** | 0.010 (0.002)*** | 0.029 (0.006)*** | 0.009 (0.002)*** |
| Experience - Squared | -0.001 (0.000)*** | -0.000 (0.000)*** | -0.001 (0.000)*** | -0.000 (0.000)*** | -0.001 (0.000)*** | -0.000 (0.000)*** |
| <i>Country-level Variables</i> | | | | | | |
| Ln(GDP per capita) | | | -0.138 (0.048)*** | -0.041 (0.014)*** | -0.134 (0.048)*** | -0.039 (0.014)*** |
| Average years of schooling | | | 0.031 (0.021) | 0.009 (0.006) | 0.031 (0.021) | 0.009 (0.006) |
| Unemployment Rate | | | 0.019 (0.005)*** | 0.006 (0.002)*** | 0.019 (0.005)*** | 0.006 (0.002)*** |
| <i>Immigration Variables</i> | | | | | | |
| Non-Economic Visa | -0.298 (0.041)*** | -0.089 (0.012)*** | -0.264 (0.042)*** | -0.078 (0.012)*** | -0.265 (0.042)*** | -0.078 (0.012)*** |
| Green Card Adjustment | 0.649 (0.052)*** | 0.193 (0.015)*** | 0.686 (0.053)*** | 0.203 (0.015)*** | 0.686 (0.054)*** | 0.201 (0.015)*** |
| Spouse of Principal | -0.183 (0.054)*** | -0.054 (0.016)*** | -0.154 (0.055)*** | -0.046 (0.016)*** | -0.147 (0.056)*** | -0.043 (0.016)*** |
| Number of Children | -0.000 (0.014) | -0.000 (0.004) | -0.001 (0.014) | -0.000 (0.004) | 0.001 (0.015) | 0.000 (0.004) |
| Number of Children under 6 | -0.285 (0.034)*** | -0.085 (0.010)*** | -0.284 (0.034)*** | -0.084 (0.010)*** | -0.301 (0.034)*** | -0.088 (0.010)*** |
| <i>Country Fixed-Effects</i> | | | | | | |
| Western Europe | 0.445 (0.187)** | 0.132 (0.056)** | 0.397 (0.205)* | 0.118 (0.061)* | 0.410 (0.214)* | 0.120 (0.063)* |
| Eastern Europe | 0.018 (0.122) | 0.005 (0.036) | -0.002 (0.141) | -0.001 (0.042) | 0.068 (0.153) | 0.020 (0.045) |
| Asia & Oceania | -0.142 (0.136) | -0.042 (0.040) | -0.193 (0.155) | -0.057 (0.046) | -0.171 (0.164) | -0.050 (0.048) |
| Latin America & the Caribbean | -0.030 (0.152) | -0.009 (0.045) | -0.074 (0.175) | -0.022 (0.052) | -0.045 (0.184) | -0.013 (0.054) |
| Africa | -0.097 (0.156) | -0.029 (0.046) | -0.134 (0.177) | -0.040 (0.052) | -0.117 (0.184) | -0.034 (0.054) |
| Constant | 0.233 (0.211) | | 1.164 (0.440)*** | | 1.216 (0.444)*** | |
| Observations | 7,890 | | 7,890 | | 7,890 | |
| Log-Likelihood | -4156.973 | | -4141.147 | | -4133.257 | |
| F-Statistic | 39.36 | | 33.34 | | 26.59 | |
| p-value | 0.000 | | 0.000 | | 0.000 | |
| Employed Abroad | 57.9% | | | | | |

Note: Standard errors are in parenthesis. Additional controls include country of previous job and education, years of unemployment, race, marital status, whether individual was immigrant abroad, student status, years in the US and English language skills (last column only). Left out dummy variables are "native English speaker", and "no education". * significant at 10%; ** significant at the 5% level; *** significant at the 1% level.

Table 4. Men's Probability of Employment in the United States

| | (1) | | (2) | | (3) | |
|--------------------------------|----------------------|------------------------|----------------------|------------------------|----------------------|------------------------|
| | <i>Coefficient</i> | <i>Marginal Effect</i> | <i>Coefficient</i> | <i>Marginal Effect</i> | <i>Coefficient</i> | <i>Marginal Effect</i> |
| <i>Education</i> | | | | | | |
| Less than 6 years | -0.212 (0.374) | -0.054 (0.095) | -0.197 (0.378) | -0.050 (0.096) | -0.140 (0.366) | -0.035 (0.091) |
| 6 - 12 years | -0.085 (0.368) | -0.022 (0.093) | -0.060 (0.371) | -0.015 (0.094) | 0.011 (0.361) | 0.003 (0.089) |
| 13 - 19 years | -0.035 (0.369) | -0.009 (0.094) | -0.012 (0.373) | -0.003 (0.094) | 0.026 (0.364) | 0.006 (0.090) |
| 20 or more | 0.012 (0.393) | 0.003 (0.100) | 0.024 (0.396) | 0.006 (0.100) | 0.042 (0.389) | 0.010 (0.096) |
| Experience | 0.038 (0.009)*** | 0.010 (0.002)*** | 0.040 (0.009)*** | 0.010 (0.002)*** | 0.030 (0.009)*** | 0.007 (0.002)*** |
| Experience - Squared | -0.001 (0.000)*** | -0.000 (0.000)*** | -0.001 (0.000)*** | -0.000 (0.000)*** | -0.001 (0.000)*** | -0.000 (0.000)*** |
| <i>Country-level Variables</i> | | | | | | |
| Ln(GDP per capita) | | | -0.044 (0.071) | -0.011 (0.018) | -0.051 (0.072) | -0.013 (0.018) |
| Average years of schooling | | | -0.026 (0.033) | -0.007 (0.008) | -0.008 (0.034) | -0.002 (0.008) |
| Unemployment Rate | | | 0.007 (0.012) | 0.002 (0.003) | 0.008 (0.013) | 0.002 (0.003) |
| <i>Immigration Variables</i> | | | | | | |
| Non-Economic Visa | -0.323 (0.065)*** | -0.082 (0.017)*** | -0.303 (0.066)*** | -0.077 (0.017)*** | -0.323 (0.066)*** | -0.080 (0.017)*** |
| Green Card Adjustment | 0.844 (0.087)*** | 0.214 (0.021)*** | 0.858 (0.088)*** | 0.217 (0.021)*** | 0.877 (0.092)*** | 0.217 (0.022)*** |
| Spouse of Principal | -0.198 (0.085)** | -0.050 (0.022)** | -0.179 (0.085)** | -0.045 (0.022)** | -0.240 (0.088)*** | -0.060 (0.022)*** |
| Number of Children | 0.045 (0.026)* | 0.011 (0.007)* | 0.047 (0.026)* | 0.012 (0.007)* | 0.035 (0.028) | 0.009 (0.007) |
| Number of Children under 6 | -0.088 (0.056) | -0.022 (0.014) | -0.090 (0.056) | -0.023 (0.014) | -0.127 (0.056)** | -0.031 (0.014)** |
| <i>Country Fixed-Effects</i> | | | | | | |
| Western Europe | 0.257 (0.248) | 0.065 (0.063) | 0.199 (0.275) | 0.050 (0.069) | 0.233 (0.285) | 0.058 (0.071) |
| Eastern Europe | 0.013 (0.178) | 0.003 (0.045) | -0.031 (0.208) | -0.008 (0.053) | 0.008 (0.219) | 0.002 (0.054) |
| Asia & Oceania | -0.253 (0.203) | -0.064 (0.051) | -0.338 (0.228) | -0.085 (0.058) | -0.304 (0.237) | -0.075 (0.059) |
| Latin America & the Caribbean | 0.017 (0.220) | 0.004 (0.056) | -0.094 (0.254) | -0.024 (0.064) | -0.012 (0.261) | -0.003 (0.065) |
| Africa | 0.017 (0.220) | 0.004 (0.056) | -0.018 (0.249) | -0.005 (0.063) | 0.013 (0.257) | 0.003 (0.064) |
| Constant | 0.411 (0.414) | | 0.964 (0.702) | | 1.006 (0.705) | |
| Observations | 3,824 | | 3,824 | | 3,822 | |
| Log-Likelihood | -1532.077 | | -1525.341 | | -1512.070 | |
| F-Statistic | 16.4 | | 13.66 | | 12.32 | |
| p-value | 0.000 | | 0.000 | | 0.000 | |
| Employed Abroad | 74% | | | | | |

Note: Standard errors are in parenthesis. Additional controls include country of previous job and education, years of unemployment, race, marital status, whether individual was immigrant abroad, student status, years in the US and English language skills (last column only). Left out dummy variables are "native English speaker", and "no education". * significant at 10%; ** significant at the 5% level; *** significant at the 1% level.

Table 5. Women's Probability of Employment in the United States

| | (1) | | (2) | | (3) | |
|--------------------------------|----------------------|------------------------|----------------------|------------------------|----------------------|------------------------|
| | <i>Coefficient</i> | <i>Marginal Effect</i> | <i>Coefficient</i> | <i>Marginal Effect</i> | <i>Coefficient</i> | <i>Marginal Effect</i> |
| <i>Education</i> | | | | | | |
| Less than 6 years | 0.275 (0.207) | 0.088 (0.066) | 0.254 (0.210) | 0.080 (0.066) | 0.203 (0.210) | 0.063 (0.066) |
| 6 - 12 years | 0.439 (0.210)** | 0.140 (0.067)** | 0.361 (0.213)* | 0.114 (0.067)* | 0.308 (0.214) | 0.096 (0.067) |
| 13 - 19 years | 0.616 (0.214)*** | 0.197 (0.068)*** | 0.496 (0.217)** | 0.157 (0.069)** | 0.446 (0.219)** | 0.140 (0.068)** |
| 20 or more | 0.739 (0.254)*** | 0.236 (0.081)*** | 0.640 (0.256)** | 0.203 (0.081)** | 0.613 (0.259)** | 0.192 (0.081)** |
| Experience | 0.024 (0.008)*** | 0.008 (0.002)*** | 0.025 (0.008)*** | 0.008 (0.002)*** | 0.025 (0.008)*** | 0.008 (0.003)*** |
| Experience - Squared | -0.001 (0.000)*** | -0.000 (0.000)*** | -0.001 (0.000)*** | -0.000 (0.000)*** | -0.001 (0.000)*** | -0.000 (0.000)*** |
| <i>Country-level Variables</i> | | | | | | |
| Ln(GDP per capita) | | | -0.200 (0.065)*** | -0.063 (0.020)*** | -0.190 (0.065)*** | -0.060 (0.020)*** |
| Average years of schooling | | | 0.072 (0.028)*** | 0.023 (0.009)*** | 0.063 (0.028)** | 0.020 (0.009)** |
| Unemployment Rate | | | 0.022 (0.006)*** | 0.007 (0.002)*** | 0.020 (0.006)*** | 0.006 (0.002)*** |
| <i>Immigration Variables</i> | | | | | | |
| Non-Economic Visa | -0.300 (0.054)*** | -0.096 (0.017)*** | -0.262 (0.056)*** | -0.083 (0.018)*** | -0.232 (0.057)*** | -0.072 (0.018)*** |
| Green Card Adjustment | 0.538 (0.066)*** | 0.172 (0.021)*** | 0.587 (0.068)*** | 0.186 (0.021)*** | 0.595 (0.069)*** | 0.186 (0.021)*** |
| Spouse of Principal | -0.144 (0.072)** | -0.046 (0.023)** | -0.101 (0.073) | -0.032 (0.023) | -0.052 (0.075) | -0.016 (0.023) |
| Number of Children | -0.029 (0.019) | -0.009 (0.006) | -0.030 (0.019) | -0.010 (0.006) | -0.020 (0.019) | -0.006 (0.006) |
| Number of Children under 6 | -0.449 (0.049)*** | -0.144 (0.015)*** | -0.450 (0.049)*** | -0.142 (0.015)*** | -0.457 (0.050)*** | -0.143 (0.015)*** |
| <i>Country Fixed-Effects</i> | | | | | | |
| Western Europe | 0.655 (0.268)** | 0.210 (0.086)** | 0.624 (0.291)** | 0.197 (0.092)** | 0.558 (0.305)* | 0.174 (0.095)* |
| Eastern Europe | 0.018 (0.172) | 0.006 (0.055) | 0.066 (0.195) | 0.021 (0.062) | 0.105 (0.214) | 0.033 (0.067) |
| Asia & Oceania | -0.036 (0.184) | -0.012 (0.059) | -0.050 (0.211) | -0.016 (0.067) | -0.095 (0.226) | -0.030 (0.071) |
| Latin America & the Caribbean | -0.052 (0.211) | -0.017 (0.067) | -0.039 (0.240) | -0.012 (0.076) | -0.095 (0.257) | -0.030 (0.080) |
| Africa | -0.130 (0.218) | -0.041 (0.070) | -0.154 (0.245) | -0.049 (0.078) | -0.187 (0.259) | -0.059 (0.081) |
| Constant | -0.573 (0.275)** | | 0.597 (0.593) | | 0.598 (0.599) | |
| Observations | 4,066 | | 4,066 | | 4,066 | |
| Log-Likelihood | -2552.561 | | -2546.099 | | -2526.876 | |
| F-Statistic | 18.97 | | 16.2 | | 13.06 | |
| p-value | 0.000 | | 0.000 | | 0.000 | |
| Employed Abroad | 45% | | | | | |

Note: Standard errors are in parenthesis. Additional controls include country of previous job and education, years of unemployment, race, marital status, whether individual was immigrant abroad, student status, years in the US and English language skills (last column only). Left out dummy variables are "native English speaker", and "no education". * significant at 10%; ** significant at the 5% level; *** significant at the 1% level.

Table 6. Return to Education and Transferable skills – Heckman Specification

| | (1) | | | | (2) | | | | (3) | | | |
|--|------------|-----------------|------------|-----------------|------------|-----------------|------------|-----------------|------------|-----------------|------------|-----------------|
| | (a) | | (b) | | (a) | | (b) | | (a) | | (b) | |
| | Heckman | Marginal Effect | Heckman | Marginal Effect | Heckman | Marginal Effect | Heckman | Marginal Effect | Heckman | Marginal Effect | Heckman | Marginal Effect |
| Wages Abroad | | | 0.032 | 0.032 | | | 0.030 | 0.030 | | | 0.028 | 0.027 |
| | | | (0.010)*** | (0.010)*** | | | (0.010)*** | (0.010)*** | | | (0.010)*** | (0.010)*** |
| <i>Education</i> | | | | | | | | | | | | |
| Less than 6 years | -0.064 | -0.047 | -0.062 | -0.038 | -0.069 | -0.057 | -0.065 | -0.048 | -0.029 | -0.016 | -0.024 | -0.007 |
| | (0.089) | (0.086) | (0.089) | (0.086) | (0.087) | (0.085) | (0.087) | (0.085) | (0.087) | (0.085) | (0.086) | (0.085) |
| 6 - 12 years | 0.035 | 0.053 | 0.033 | 0.065 | 0.022 | 0.034 | 0.023 | 0.044 | 0.088 | 0.101 | 0.090 | 0.112 |
| | (0.090) | (0.087) | (0.089) | (0.086) | (0.089) | (0.087) | (0.088) | (0.087) | (0.088) | (0.087) | (0.088) | (0.087) |
| 13 - 19 years | 0.266 | 0.302 | 0.256 | 0.312 | 0.227 | 0.253 | 0.223 | 0.261 | 0.268 | 0.295 | 0.267 | 0.306 |
| | (0.092)*** | (0.089)*** | (0.092)*** | (0.089)*** | (0.091)** | (0.089)*** | (0.092)** | (0.090)*** | (0.090)*** | (0.089)*** | (0.090)*** | (0.089)*** |
| 20 or more | 0.576 | 0.611 | 0.556 | 0.613 | 0.522 | 0.546 | 0.509 | 0.547 | 0.537 | 0.562 | 0.529 | 0.567 |
| | (0.110)*** | (0.108)*** | (0.110)*** | (0.109)*** | (0.109)*** | (0.108)*** | (0.110)*** | (0.110)*** | (0.108)*** | (0.107)*** | (0.108)*** | (0.108)*** |
| Female | -0.418 | -0.391 | -0.410 | -0.386 | -0.418 | -0.399 | -0.411 | -0.394 | -0.415 | -0.395 | -0.409 | -0.391 |
| | (0.030)*** | (0.030)*** | (0.029)*** | (0.029)*** | (0.030)*** | (0.030)*** | (0.030)*** | (0.030)*** | (0.030)*** | (0.030)*** | (0.030)*** | (0.030)*** |
| Experience | 0.010 | 0.010 | 0.009 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.010 | 0.011 |
| | (0.004)** | (0.004)** | (0.005)** | (0.005)** | (0.005)** | (0.005)** | (0.005)** | (0.005)** | (0.005)** | (0.005)** | (0.005)** | (0.005)** |
| Experience - Squared | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 |
| | (0.000)*** | (0.000)*** | (0.000)*** | (0.000)*** | (0.000)*** | (0.000)*** | (0.000)*** | (0.000)*** | (0.000)*** | (0.000)*** | (0.000)*** | (0.000)*** |
| <i>English Skills</i> | | | | | | | | | | | | |
| Non native English speaker | | | | | -0.101 | -0.123 | -0.102 | -0.123 | -0.015 | -0.037 | -0.015 | -0.036 |
| | | | | | (0.081) | (0.082) | (0.082) | (0.082) | (0.084) | (0.085) | (0.085) | (0.085) |
| Does not speak English | | | | | -0.215 | -0.224 | -0.207 | -0.215 | -0.147 | -0.156 | -0.139 | -0.147 |
| | | | | | (0.076)*** | (0.076)*** | (0.075)*** | (0.076)*** | (0.079)* | (0.079)** | (0.079)* | (0.079)* |
| No English, but worked in English-speaking country | | | | | -0.008 | -0.021 | -0.005 | -0.013 | 0.026 | 0.014 | 0.027 | 0.021 |
| | | | | | (0.129) | (0.130) | (0.129) | (0.129) | (0.124) | (0.124) | (0.123) | (0.124) |
| <i>Immigration Variables</i> | | | | | | | | | | | | |
| Non-Economic Visa | | | | | | | | | -0.234 | -0.241 | -0.229 | -0.238 |
| | | | | | | | | | (0.028)*** | (0.028)*** | (0.028)*** | (0.028)*** |
| Green Card Adjustment | | | | | | | | | 0.165 | 0.168 | 0.162 | 0.164 |
| | | | | | | | | | (0.047)*** | (0.047)*** | (0.047)*** | (0.047)*** |
| Spouse of Principal | | | | | | | | | -0.096 | -0.100 | -0.095 | -0.101 |
| | | | | | | | | | (0.041)** | (0.041)** | (0.041)** | (0.041)** |
| <i>Country Fixed-Effects</i> | | | | | | | | | | | | |
| Western Europe | -0.203 | -0.238 | -0.221 | -0.239 | -0.106 | -0.117 | -0.122 | -0.122 | -0.080 | -0.097 | -0.099 | -0.102 |
| | (0.136) | (0.136)* | (0.136) | (0.136)* | (0.147) | (0.147) | (0.147) | (0.147) | (0.162) | (0.161) | (0.163) | (0.162) |
| Eastern Europe | -0.356 | -0.386 | -0.319 | -0.350 | -0.221 | -0.235 | -0.192 | -0.206 | -0.253 | -0.271 | -0.231 | -0.247 |
| | (0.091)*** | (0.091)*** | (0.090)*** | (0.091)*** | (0.105)** | (0.106)** | (0.105)* | (0.106)* | (0.122)** | (0.122)** | (0.122)* | (0.122)** |
| Asia & Oceania | -0.278 | -0.280 | -0.272 | -0.274 | -0.179 | -0.171 | -0.176 | -0.170 | -0.201 | -0.199 | -0.205 | -0.200 |
| | (0.098)*** | (0.100)*** | (0.098)*** | (0.100)*** | (0.111) | (0.112) | (0.111) | (0.112) | (0.131) | (0.132) | (0.132) | (0.132) |
| Latin America & the Caribbean | -0.721 | -0.730 | -0.702 | -0.716 | -0.616 | -0.614 | -0.603 | -0.605 | -0.642 | -0.643 | -0.639 | -0.638 |
| | (0.127)*** | (0.128)*** | (0.128)*** | (0.128)*** | (0.138)*** | (0.139)*** | (0.139)*** | (0.139)*** | (0.165)*** | (0.165)*** | (0.166)*** | (0.166)*** |
| Africa | -0.245 | -0.260 | -0.226 | -0.239 | -0.127 | -0.128 | -0.112 | -0.113 | -0.165 | -0.175 | -0.155 | -0.162 |
| | (0.121)** | (0.122)** | (0.122)* | (0.123)* | (0.128) | (0.129) | (0.128) | (0.129) | (0.145) | (0.145) | (0.146) | (0.146) |
| Observations | 7896.00 | | 7896.00 | | 7896.00 | | 7896.00 | | 7896.00 | | 7896.00 | |
| rho | 0.264 | | 0.277 | | 0.188 | | 0.188 | | 0.197 | | 0.195 | |
| Chi-Squared | 4.986 | | 4.848 | | 1.96 | | 1.17 | | 2.597 | | 1.664 | |
| (Prob Chi ² =0) | (0.026) | *** | (0.028) | *** | (0.161) | | (0.279) | | (0.107) | | (0.197) | |

Note: Standard errors are in parenthesis. Dependent variable is Wages in the USA. Additional controls include years in the US, race, immigration status abroad and number of weeks per year worked. Left out dummy variables are "English-speaking developed countries", "native English speaker" and "no education". Column (3) also controls for country-level variables (log of GDP and average schooling). Estimates and marginal effects of the selection variables are available from the author upon request. * significant at 10%; ** significant at the 5% level; *** significant at the 1% level.

Table 7. Men's Return to Education and Transferable skills – Heckman Specification

| | (1) | | | | (2) | | | | (3) | | | |
|---|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | (a) | | (b) | | (a) | | (b) | | (a) | | (b) | |
| | Heckman | Marginal Effect | Heckman | Marginal Effect | Heckman | Marginal Effect | Heckman | Marginal Effect | Heckman | Marginal Effect | Heckman | Marginal Effect |
| Wages Abroad | | | 0.023 (0.014)* | 0.023 (0.014)* | | | 0.022 (0.014) | 0.022 (0.014) | | | 0.020 (0.014) | 0.020 (0.014) |
| <i>Education</i> | | | | | | | | | | | | |
| Less than 6 years | -0.063 (0.116) | -0.068 (0.116) | -0.077 (0.118) | -0.067 (0.117) | -0.057 (0.116) | -0.066 (0.116) | -0.062 (0.117) | -0.065 (0.118) | 0.045 (0.121) | 0.037 (0.122) | 0.040 (0.124) | 0.039 (0.124) |
| 6 - 12 years | 0.005 (0.112) | -0.001 (0.112) | -0.012 (0.114) | 0.003 (0.113) | -0.015 (0.112) | -0.026 (0.113) | -0.018 (0.115) | -0.023 (0.115) | 0.124 (0.119) | 0.113 (0.119) | 0.120 (0.122) | 0.118 (0.122) |
| 13 - 19 years | 0.271 (0.120)** | 0.261 (0.121)** | 0.251 (0.124)** | 0.273 (0.124)** | 0.194 (0.119) | 0.177 (0.120) | 0.192 (0.123) | 0.185 (0.123) | 0.305 (0.125)** | 0.289 (0.125)** | 0.304 (0.129)** | 0.301 (0.129)** |
| 20 or more | 0.560 (0.142)*** | 0.552 (0.142)*** | 0.536 (0.145)*** | 0.555 (0.146)*** | 0.467 (0.141)*** | 0.454 (0.141)*** | 0.461 (0.143)*** | 0.455 (0.143)*** | 0.551 (0.144)*** | 0.538 (0.144)*** | 0.546 (0.147)*** | 0.544 (0.147)*** |
| Experience | 0.013 (0.007)** | 0.013 (0.007)* | 0.013 (0.007)** | 0.013 (0.007)** | 0.011 (0.007) | 0.011 (0.007) | 0.011 (0.007) | 0.011 (0.007) | 0.010 (0.007) | 0.010 (0.007) | 0.010 (0.007) | 0.010 (0.007) |
| Experience - Squared | -0.000 (0.000)*** | -0.000 (0.000)*** | -0.000 (0.000)*** | -0.000 (0.000)*** | -0.000 (0.000)** | -0.000 (0.000)** | -0.000 (0.000)** | -0.000 (0.000)** | -0.000 (0.000)** | -0.000 (0.000)** | -0.000 (0.000)** | -0.000 (0.000)** |
| <i>English Skills</i> | | | | | | | | | | | | |
| Non native English speaker | | | | | -0.221 (0.115)* | -0.215 (0.115)* | -0.211 (0.116)* | -0.209 (0.115)* | -0.074 (0.121) | -0.068 (0.121) | -0.065 (0.123) | -0.064 (0.123) |
| Does not speak English | | | | | -0.342 (0.107)*** | -0.338 (0.106)*** | -0.329 (0.106)*** | -0.327 (0.106)*** | -0.230 (0.113)** | -0.226 (0.113)** | -0.219 (0.113)* | -0.218 (0.113)* |
| No English, but worked in English-speaking country | | | | | -0.143 (0.170) | -0.139 (0.170) | -0.125 (0.170) | -0.124 (0.169) | -0.139 (0.161) | -0.136 (0.161) | -0.123 (0.161) | -0.123 (0.161) |
| <i>Immigration Variables</i> | | | | | | | | | | | | |
| Non-Economic Visa | | | | | | | | | -0.266 (0.038)*** | -0.264 (0.038)*** | -0.263 (0.038)*** | -0.263 (0.038)*** |
| Green Card Adjustment | | | | | | | | | -0.081 (0.058) | -0.082 (0.058) | -0.082 (0.058) | -0.083 (0.058) |
| Spouse of Principal | | | | | | | | | 0.134 (0.064)** | 0.132 (0.064)** | 0.127 (0.065)** | 0.127 (0.065)** |
| <i>Country Fixed-Effects</i> | | | | | | | | | | | | |
| Western Europe | -0.249 (0.183) | -0.246 (0.182) | -0.250 (0.182) | -0.250 (0.183) | -0.063 (0.205) | -0.061 (0.205) | -0.066 (0.203) | -0.068 (0.203) | -0.189 (0.229) | -0.189 (0.229) | -0.188 (0.227) | -0.189 (0.227) |
| Eastern Europe | -0.462 (0.119)*** | -0.461 (0.119)*** | -0.433 (0.118)*** | -0.434 (0.118)*** | -0.236 (0.146) | -0.236 (0.145) | -0.217 (0.144) | -0.217 (0.144) | -0.405 (0.171)** | -0.406 (0.171)** | -0.386 (0.170)** | -0.386 (0.170)** |
| Asia & Oceania | -0.319 (0.128)** | -0.319 (0.127)** | -0.309 (0.127)** | -0.306 (0.128)** | -0.148 (0.149) | -0.152 (0.149) | -0.143 (0.149) | -0.145 (0.149) | -0.340 (0.183)* | -0.345 (0.183)* | -0.333 (0.183)* | -0.334 (0.183)* |
| Latin America & the Caribbean | -0.884 (0.182)*** | -0.882 (0.182)*** | -0.870 (0.182)*** | -0.872 (0.182)*** | -0.712 (0.197)*** | -0.712 (0.196)*** | -0.706 (0.197)*** | -0.706 (0.196)*** | -0.920 (0.240)*** | -0.924 (0.240)*** | -0.915 (0.240)*** | -0.916 (0.240)*** |
| Africa | -0.387 (0.166)** | -0.384 (0.166)** | -0.369 (0.166)** | -0.371 (0.166)** | -0.171 (0.179) | -0.169 (0.178) | -0.162 (0.178) | -0.162 (0.178) | -0.359 (0.206)* | -0.357 (0.205)* | -0.345 (0.205)* | -0.345 (0.205)* |
| Observations | 3,824 | | 3,824 | | 3,824 | | 3,824 | | 3,824 | | 3,824 | |
| rho | -0.0294 | | 0.0565 | | -0.052 | | -0.0171 | | -0.0497 | | -0.00687 | |
| Chi-Squared | 0.0418 | | 0.103 | | 0.165 | | 0.0093 | | 0.159 | | 0.00136 | |
| (Prob Chi ² =0) | (0.838) | | (0.749) | | (0.684) | | (0.923) | | (0.690) | | (0.971) | |

Note: Standard errors are in parenthesis. Dependent variable is Wages in the USA. Additional controls include years in the US, race, immigration status abroad and number of weeks per year worked. Left out dummy variables are "English-speaking developed countries", "native English speaker" and "no education". Column (3) also controls for country-level variables (log of GDP and average schooling). Estimates and marginal effects of the selection variables are available from the author upon request. * significant at 10%; ** significant at the 5% level; *** significant at the 1% level.

Table 8. Women's Return to Education and Transferable skills – Heckman Specification

| | (1) | | | | (2) | | | | (3) | | | |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|----------------------|
| | (a) | | (b) | | (a) | | (b) | | (a) | | (b) | |
| | Heckman | Marginal Effect | Heckman | Marginal Effect | Heckman | Marginal Effect | Heckman | Marginal Effect | Heckman | Marginal Effect | Heckman | Marginal Effect |
| Wages Abroad | | | 0.043 (0.015)*** | 0.039 (0.015)*** | | | 0.042 (0.015)*** | 0.036 (0.015)** | | | 0.037 (0.015)** | 0.032 (0.014)** |
| <i>Education</i> | | | | | | | | | | | | |
| Less than 6 years | -0.007 (0.129) | -0.029 (0.140) | 0.007 (0.128) | -0.029 (0.140) | -0.019 (0.130) | -0.043 (0.139) | -0.003 (0.128) | -0.041 (0.139) | -0.027 (0.123) | -0.051 (0.132) | -0.010 (0.122) | -0.046 (0.132) |
| 6 - 12 years | 0.120 (0.136) | 0.109 (0.146) | 0.134 (0.134) | 0.100 (0.146) | 0.110 (0.138) | 0.099 (0.146) | 0.124 (0.136) | 0.088 (0.146) | 0.106 (0.132) | 0.093 (0.138) | 0.125 (0.129) | 0.090 (0.138) |
| 13 - 19 years | 0.346 (0.136)** | 0.313 (0.146)** | 0.349 (0.134)*** | 0.283 (0.147)* | 0.332 (0.138)** | 0.294 (0.148)** | 0.336 (0.137)** | 0.262 (0.148)* | 0.305 (0.132)** | 0.262 (0.140)* | 0.317 (0.130)** | 0.241 (0.140)* |
| 20 or more | 0.699 (0.171)*** | 0.606 (0.176)*** | 0.685 (0.171)*** | 0.556 (0.179)*** | 0.678 (0.173)*** | 0.580 (0.177)*** | 0.662 (0.172)*** | 0.521 (0.179)*** | 0.642 (0.168)*** | 0.539 (0.171)*** | 0.638 (0.168)*** | 0.498 (0.173)*** |
| Experience | 0.003 (0.006) | 0.003 (0.006) | 0.004 (0.006) | 0.002 (0.006) | 0.005 (0.007) | 0.006 (0.006) | 0.006 (0.007) | 0.005 (0.006) | 0.006 (0.006) | 0.006 (0.006) | 0.007 (0.007) | 0.006 (0.006) |
| Experience - Squared | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 | -0.000 |
| <i>English Skills</i> | | | | | | | | | | | | |
| Non native English speaker | | | | | -0.026 (0.110) | 0.031 (0.105) | -0.024 (0.109) | 0.037 (0.103) | -0.002 (0.114) | 0.043 (0.108) | -0.001 (0.113) | 0.051 (0.107) |
| Does not speak English | | | | | -0.074 (0.107) | -0.071 (0.101) | -0.052 (0.107) | -0.048 (0.099) | -0.049 (0.111) | -0.058 (0.105) | -0.030 (0.111) | -0.034 (0.103) |
| No English, but worked in English-speaking country | | | | | 0.207 (0.194) | 0.200 (0.186) | 0.232 (0.190) | 0.202 (0.181) | 0.257 (0.184) | 0.252 (0.175) | 0.278 (0.180) | 0.251 (0.171) |
| <i>Immigration Variables</i> | | | | | | | | | | | | |
| Non-Economic Visa | | | | | | | | | -0.205 (0.043)*** | -0.200 (0.041)*** | -0.199 (0.043)*** | -0.194 (0.041)*** |
| Green Card Adjustment | | | | | | | | | 0.128 (0.060)** | 0.139 (0.056)** | 0.126 (0.060)** | 0.135 (0.056)** |
| Spouse of Principal | | | | | | | | | -0.089 (0.060) | -0.078 (0.058) | -0.092 (0.060) | -0.078 (0.057) |
| <i>Country Fixed-Effects</i> | | | | | | | | | | | | |
| Western Europe | -0.264 (0.192) | -0.134 (0.186) | -0.254 (0.192) | -0.147 (0.183) | -0.212 (0.203) | -0.113 (0.196) | -0.211 (0.203) | -0.136 (0.192) | -0.063 (0.216) | 0.104 (0.206) | -0.066 (0.217) | 0.062 (0.206) |
| Eastern Europe | -0.331 (0.143)** | -0.248 (0.138)* | -0.269 (0.142)* | -0.174 (0.135) | -0.282 (0.153)* | -0.214 (0.147) | -0.239 (0.152) | -0.164 (0.144) | -0.194 (0.167) | -0.070 (0.160) | -0.162 (0.166) | -0.045 (0.159) |
| Asia & Oceania | -0.239 (0.154) | -0.217 (0.147) | -0.244 (0.152) | -0.213 (0.144) | -0.217 (0.163) | -0.218 (0.156) | -0.231 (0.161) | -0.224 (0.153) | -0.103 (0.179) | -0.037 (0.171) | -0.125 (0.178) | -0.063 (0.170) |
| Latin America & the Caribbean | -0.528 (0.174)*** | -0.487 (0.165)*** | -0.513 (0.173)*** | -0.451 (0.163)*** | -0.488 (0.188)*** | -0.471 (0.179)*** | -0.485 (0.186)*** | -0.449 (0.176)** | -0.337 (0.209) | -0.249 (0.197) | -0.349 (0.209)* | -0.261 (0.197) |
| Africa | -0.064 (0.179) | -0.035 (0.169) | -0.036 (0.180) | 0.002 (0.169) | -0.031 (0.180) | -0.027 (0.171) | -0.016 (0.180) | -0.006 (0.171) | 0.060 (0.191) | 0.124 (0.182) | 0.066 (0.192) | 0.128 (0.185) |
| Observations | 4,072 | | 4,072 | | 4,072 | | 4,072 | | 4,072 | | 4,072 | |
| rho | -0.609 | | -0.626 | | -0.617 | | -0.640 | | -0.645 | | -0.658 | |
| Chi-Squared (Prob Chi ² =0) | 24.350 (0.000) | *** | 30.500 (0.000) | *** | 25.600 (0.000) | *** | 33.500 (0.000) | *** | 31.700 (0.000) | *** | 35.200 (0.000) | *** |

Note: Standard errors are in parenthesis. Dependent variable is Wages in the USA. Additional controls include years in the US, race, immigration status abroad and number of weeks per year worked. Left out dummy variables are "English-speaking developed countries", "native English speaker" and "no education". Column (3) also controls for country-level variables (log of GDP and average schooling). Estimates and marginal effects of the selection variables are available from the author upon request. * significant at 10%; ** significant at the 5% level; *** significant at the 1% level.

Table 9. New Immigrant's Return to Education and Transferable Skills – Heckman Estimation by Immigrant type*Full Sample*

| | <i>1b</i> | | <i>2b</i> | | <i>3b</i> | |
|-------------------|---------------------|------------------------|---------------------|------------------------|---------------------|------------------------|
| | <i>Heckman</i> | <i>Marginal Effect</i> | <i>Heckman</i> | <i>Marginal Effect</i> | <i>Heckman</i> | <i>Marginal Effect</i> |
| Wages Abroad | | | | | | |
| Economic Visa | 0.050 (0.011)*** | 0.048 (0.011)*** | 0.045 (0.011)*** | 0.044 (0.011)*** | 0.047 (0.011)*** | 0.046 (0.011)*** |
| Non Economic Visa | 0.021 (0.011)* | 0.021 (0.011)* | 0.019 (0.011)* | 0.019 (0.011)* | 0.018 (0.011) | 0.018 (0.011) |

Males

| | <i>1b</i> | | <i>2b</i> | | <i>3b</i> | |
|-------------------|---------------------|------------------------|--------------------|------------------------|--------------------|------------------------|
| | <i>Heckman</i> | <i>Marginal Effect</i> | <i>Heckman</i> | <i>Marginal Effect</i> | <i>Heckman</i> | <i>Marginal Effect</i> |
| Wages Abroad | | | | | | |
| Economic Visa | 0.038 (0.014)*** | 0.036 (0.014)*** | 0.031 (0.014)** | 0.031 (0.014)** | 0.033 (0.014)** | 0.033 (0.014)** |
| Non Economic Visa | 0.013 (0.015) | 0.013 (0.015) | 0.014 (0.016) | 0.014 (0.016) | 0.013 (0.016) | 0.013 (0.016) |

Females

| | <i>1b</i> | | <i>2b</i> | | <i>3b</i> | |
|-------------------|---------------------|------------------------|---------------------|------------------------|---------------------|------------------------|
| | <i>Heckman</i> | <i>Marginal Effect</i> | <i>Heckman</i> | <i>Marginal Effect</i> | <i>Heckman</i> | <i>Marginal Effect</i> |
| Wages Abroad | | | | | | |
| Economic Visa | 0.067 (0.017)*** | 0.062 (0.017)*** | 0.065 (0.017)*** | 0.060 (0.017)*** | 0.067 (0.017)*** | 0.060 (0.017)*** |
| Non Economic Visa | 0.030 (0.016)* | 0.025 (0.016) | 0.028 (0.016)* | 0.022 (0.016) | 0.025 (0.016) | 0.019 (0.016) |

Figure 1. Employment Status in the United States by Visa Category

