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The Effect of Parental Nativity Status on Earnings

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Abstract: There has been a significant amount of debate in recent years about the economic performance of immigrants. Understanding the economic contribution of the second-generation is important in order to provide a more comprehensive picture of the total impact of immigrants in the United States. There is strong evidence to suggest that second-generation immigrants have experienced upward income mobility, and human capital theory hypothesizes that the economic performance of the second-generation will match that of their native-born counterparts. It also predicts that having one immigrant parent and one native-born parent as opposed to having two immigrant parents will lead to an earnings advantage. The purpose of this research is to determine if second-generation immigrants have reached income parity with native-born individuals as a whole and on a country specific basis, and how the parental nativity status of the second-generation affects those earnings. Data from the 2010-2015 IPUMS Current Population Survey allows the nativity and birthplace status of the respondents' parents to be related to their income. An analysis of those data indicates that second-generation immigrants as a whole have reached income parity with native-born individuals. Furthermore, second-generation immigrants with an immigrant mother and native father experience a slight edge in their earnings over those who are native-born and their cohorts. This pattern follows when analyzing the second-generation of Mexican immigrants, but not East Asian immigrants.

I. Introduction

There has been a significant amount of debate in recent years regarding the economic performance and integration of immigrants to the United States. It is generally acknowledged that an important factor to consider in the political and economic discourse on immigration is the performance and integration of the children of immigrants into U.S society. A 2013 study by the Pew Research Center (2013) found that in the U.S there are around 20 million second-generation immigrants who are adults, and 16 million under the age of 18. It also found that given current trends in birth rates, immigrants and their U.S born children will likely account for 93% of the growth of the working age population between 2013 and 2050. Knowing more about the economic performance of this growing population is important in order to provide a more extensive picture of the economic effect of immigrants in the U.S.

While many studies have examined the economic performance of second-generation immigrants, there is little to no research on the differences amongst second-generation immigrants with two foreign parents as opposed to just one. This paper contributes to the literature by examining the earnings of second-generation immigrants not as a whole, but divided amongst three categories: those with two immigrant parents, those with an immigrant mother and native-born father, and those with an immigrant father and native-born mother.

Furthermore, many studies focused on the comparison in earnings between second-generation immigrants and those who are native-born lump the former group together regardless of their parents' country of origin. While second-generation immigrants may appear to earn more than native-born individuals as a whole, this may

not be true for second-generation immigrants from countries like Mexico where immigrants tend to have lower levels of educational attainment relative to the overall Mexican population. This is known as negative selection (Borjas, 1987). On the other hand, the children of immigrants from Asian countries may have some advantage, because immigrants from many Asian countries tend to have higher levels of education relative to the average educational attainment in their countries of origin. This is known as positive selection (Borjas, 1987).

Therefore, this current paper will examine the earnings of second-generation immigrants based on the nativity of the parents (i.e., both parents immigrants; immigrant mother and native-born father; and native-born mother and immigrant father) in three different samples: all second-generation immigrants, those with parent(s) from Mexico, and those with parent(s) from East Asian countries. This country and region were selected because the Migration Policy Institute (2014) finds that from 1960 to 2014 the top country where immigrants migrate from is Mexico with 27.6% of the total immigrant population. In 2014 immigrants from Asia made up 30.1% of the total immigrant population

The results of this paper could provide substantial insight into the mechanisms by which second-generation immigrants improve their economic status as compared to the parents. Policy makers could then know which groups are at an economic disadvantage compared to those who are native-born and need additional help.

II. Literature Review

There has been a significant amount of research exploring the economic impact of immigrants. There is a general consensus in the literature that an income gap exists

between immigrants and their native-born counterparts (Borjas, 2015, Chiswick, 1978). There are several reasons that have been observed for this gap including a lack of transferability of skills such as language, lack of knowledge of U.S customs, less job-specific training, and lack of knowledge of opportunities for jobs (Chiswick, 1978). Many studies note that over time the wages of immigrants through assimilation and acquiring U.S. capital will converge with the wages of their native-born counterparts (Chiswick, 1978). However, it has also been observed that using cross-sectional data can create a false perception of immigrants catching up to and even overtaking those who are native-born in earnings (Borjas, 2015). Studies that have instead tracked the earnings of immigrants across censuses have found that the earnings of immigrants have not caught up with the earnings of their native-born counterparts, which is especially true for recent immigrants (Borjas, 1985).

Studies have also found differences in wage convergence amongst immigrants from different countries. In George Borjas' (1987) study of the self-selection of immigrants, he finds that the rate of return to human capital in a worker's country is an important determinant in the decision to migrate. In some countries the return to human capital investments, like education, is low. For workers with higher skills from these countries there is an incentive to migrate to a country, like the U.S, that will provide a larger pay-off for their skills than their country of origin. These workers who make the move are positively selected because they come from the higher end of the skill distribution in their country. In a country like Mexico where the dispersion in income distribution is high, workers with high skills tend to receive very high earnings in Mexico while those with lower skills receive markedly lower returns. Since these lower skilled

workers could receive higher payoffs for their skills in the U.S, the majority of Mexican immigrants would be described as negatively selected. It is important to note that the word negative is not meant to indicate an immigrant's intrinsic value, but simply that they originate from a country with high income inequality where their skills are not rewarded as much as they could be in a different country.

Another determinant in the decision to migrate is the physical cost of migration itself. It is more expensive for immigrants from Asia to migrate to the United States than Mexico, which shares a border. Since the cost to migrate from Asia is higher, the pay-off for their skills must be great enough to overcome the cost of migration, which further increases average skill level of these immigrants.

However, it is generally believed that second-generation immigrants (persons born in the U.S with at least one parent born abroad) *have* experienced upward income mobility, improving upon the earnings of their parents (Chiswick, 1977). My research focuses on the earnings performance of the second-generation relative to their native-born counterparts.

There are several theories that attempt to explain the advantage in earnings that second-generation immigrants may have over those who are native-born. In a study of ethnic identity and second-generation immigrants, Schuller (2015) has found that an integrated family environment rather than an assimilated one is most conducive for educational success. Therefore, second-generation immigrants might receive higher levels of education in an environment where their parents are not completely assimilated to the host country. Furthermore, Sanders and Nee (1996) have found that an immigrant

family can be a source of social human capital that provides the benefits of networking and personal ties.

Since a significant portion of second-generation immigrants only have one parent that was born abroad and one native-born parent, this portion of the second-generation population may have the advantage of having human capital influences from both the U.S and from abroad. Comparing the economic success of this population to that of second-generation immigrants who have two parents that were born abroad and therefore less of a culturally balanced environment, might give insight into what family structure and therefore what kind of environment is most conducive to the economic success of second-generation immigrants. By comparing the effect of having two immigrant parents, versus having an immigrant parent and a native-born parent, this research will evaluate the effect of parental nativity status of second-generation immigrants on their earnings.

III. Theory & Hypothesis

The main theory used in this study is human capital theory. According to the theory, any investments that increase the productivity of an individual should increase income (Rosen, 2008). For example, education is a very influential investment that increases the productivity and income of individuals. Differences in education received outside the U.S. and in foreign labor markets leads to difficulties for immigrants in trying to transfer their skills to the U.S. labor market. This in turn leads to an initial disadvantage for immigrants who are not able to match the productivity levels of native-born individuals, and therefore immigrants generally receive lower incomes. With time immigrants have been shown to increase their average wages (Chiswick, 1978). Human capital theory suggests that this is due to assimilation. Assimilation is a process by which

immigrants learn about the cultural and economic characteristic of their host country. Over time they may become more similar to natives after acquiring human capital more conducive to success in the host country's labor market (Schaeffer, 2006). Because second-generation immigrants are defined as persons born in the U.S., it is reasonable to assume that their foreign born parents would have had some time to assimilate to the U.S labor market. Beenstock, Chiswick and Paltiel (2010) studied longitudinal data to test how assimilation affects immigrants. They found that immigrants who have lived in their host country for a longer time experience a steeper increase in earnings. Furthermore, based on a study on the educational attainment of second-generation immigrants, immigrant parents who have assimilated to their host country have a positive impact on the economic performance of their children (Gang & Zimmermann, 2000).

In addition to benefitting from the assimilation of their parents, second-generation immigrants have another advantage that their parents did not. By being born in the U.S, they have the opportunity to acquire U.S. specific capital from the start, much like their native-born counterparts. However, unlike the latter, second-generation immigrants may also gain an advantage by obtaining human capital unique to their parent's foreign birthplace. The theory of social capital from Sanders and Nee (1996) suggests that an immigrant family provides beneficial human capital endowments in the form of networking and personal ties. The idea of the "American Dream" proposed by Djajic (2003) proposes that second-generation immigrants are more grateful for their opportunities than native-born individuals, and would therefore take action to supplement their education and work harder to reap the benefits of their opportunities. These theories may explain why Hample (2011) found in her study of the transferability of human

capital among immigrants, that second-generation immigrants gain greater returns on education in terms of income compared to native-born individuals. Based on this finding, assimilation theory, and human and social capital theory, the first hypothesis is that second-generation immigrants will have at least reached income parity with native-born individuals.

The same hypothesis applies to the sample of East Asian first and second-generation immigrants, but not the Mexican sample. In their research on the economic assimilation of Mexican and Chinese immigrants, Wu and Seeborg (2012) found evidence of wage convergence for Chinese immigrants, but not among Mexican immigrants. Because Mexican immigrants still experience a significant wage gap with those born in the U.S, they may have less human capital to transfer to their children who in turn may still lag behind their native-born counterparts in earnings. Therefore, a variation on the first hypothesis is the expectation that second-generation immigrants with at least one or both parents originating from Mexico will not have reached income parity with their native-born counterparts.

My research examines whether having two immigrant parents is an advantage or disadvantage over having one immigrant and one native-born parent. It has been stressed in economic literature the importance of parents' inputs in their children's education (Becker, 1981). In addition, research done by Borjas (1992) has emphasized the importance of the skills of one's parents and human capital influences from one's ethnic group on the economic performance of the second-generation. However, Hample (2011) found that that the direct and indirect effects of parental education has a larger impact on the earnings of those who are native-born than second-generation immigrants. These

findings call into question the relevance of the education immigrant parents receive abroad and pass on to their children. According to Borjas' (1992) findings, it might then be other skills besides education such as a second language, a strong work ethic, and a hunger to do better than their parents that contributes to second-generation immigrants earning more than their native-born counterparts. Human and social capital theory suggest that there are advantages to assimilation and to the networking and personal ties that come from being a part of an immigrant family, while an analysis of the effect of parental education on earnings shows a greater impact for natives than for second-generation immigrants on earnings. The group that could benefit the most from these two findings is the second-generation immigrants who have one foot in both worlds. If this in fact does present a comparative advantage for this group, then on the basis of these human and social capital considerations, I hypothesize that second-generation immigrants with one foreign parent and one native-born parent will outperform native-born individuals and other second-generation immigrants in earnings.

In sum, human and social capital theories discussed above suggest the following three research hypotheses:

1. Second-generation immigrants as a whole will earn equal to or more than their native-born counterparts.

2. Second-generation immigrants whose parent(s) originate from Mexico will earn less than their native-born counterparts.

3. Second-generation immigrants with one foreign parent and one native-born parent will earn more than their native-born counterparts and second-generation immigrants with two immigrant parents.

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The following section describes the database and empirical models that will be used to test these hypotheses.

IV. Data and Empirical Model

The data used in this study comes from the 2010-2015 IPUMS current population survey (CPS) from the Minnesota Current Population Center (Flood, King, Ruggles & Warren, 2013). The CPS is a monthly U.S. household survey designed primarily to measure employment statistics. This survey is a good fit for the purpose of this research because it provides a large sample size with useful demographic information on the first and second-generation immigrant populations. Such information includes a detailed survey of educational attainment, the respondent's birthplace, and the birthplace of the respondent's parents. Knowing this last piece of information allows the data on first and second-generation immigrants from Mexico and East Asian countries to be looked at in separate samples. The sample extracted for this research consists of adult (aged 25 to 67) native-born individuals, and immigrants. Immigrants from Mexico, China, Hong Kong, Taiwan, Japan, South Korea, Indonesia, and Vietnam make up the Mexican and East Asian samples.[1]

A restriction in using this database is the lack of information on the education levels of the parents of the second-generation of immigrants, which is a factor that Dustmann, Frattini, and Lanzara (2012) have found to be important in the educational attainment of their children. Another important restriction that resulted from using this data is the lack of information (income, hours worked, etc.) on the parents of the respondents. Therefore, the first-generation immigrants analyzed in this study come from the same cross-section

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[1] Indonesia is located in Southeast Asia, but since the majority of countries selected are in East Asia, the sample will be referred to as such for this paper.

as the second-generation immigrants, and are by no means meant to represent the parents of the second-generation.

Given that there is a distinct proven income gap between first-generation immigrants and their native-born counterparts (Borjas 2015), this study will focus on two questions: first, is the second-generation of immigrants closing that gap by achieving earnings equal to their native-born counterparts: second, does the nativity status of the second-generation's parents affect whether their incomes reach parity with their native-born counterparts or achieve greater earnings. For the purpose of this study, the data will focus on the working age population who are employed full time. This study includes respondents who reported working at least 48 weeks during the survey year and reported their usual hours worked to be at least 36 hours a week.

To assess the earnings of second-generation immigrants, the dependent variable in this study is the annual salary and wages of the respondents. The independent variables will represent the differences in nativity and parental nativity of the respondents. The variable native-born indicates those who were born in the U.S to parents who were also born in the U.S. The immigrant variable indicates individuals who were born in a foreign country and now reside in the U.S. Second-generation immigrants are broken down into three groups based on the nativity of their parents. The three groups are labeled Immigrant Mother/Immigrant Father, Immigrant Mother/Native Father, and Immigrant Father/Native Mother.

Table 1 presents descriptive statistics of the mean incomes of each group, from each sample. Formal hypothesis testing will be done with regression analysis.

Table 1: Average Income and Population for Native-Born, and First and Second-generation Immigrants: Total Sample, Mexican Sample, and East Asian Sample

	Avg. Income	N
Total Sample		
Natives	57,334.22	277788
First-generation Immigrants	48,989.06	70756
Second-generation		
Immigrant Mother/ Immigrant Father	57,341.03	13570
Immigrant Mother/ Native Father	64,072.12	6220
Immigrant Father/ Native Mother	60,603.79	6160
Mexican Sample		
First-generation Immigrants	31,284.08	19739
Second-generation		
Immigrant Mother/ Immigrant Father	43,140.25	4170
Immigrant Mother/Native Father	47,212.09	910
Immigrant Father/Native Mother	43,339.56	1407
East Asian Sample		
First-generation Immigrants	59,564.83	8279
Second-generation		
Immigrant Mother/ Immigrant Father	65,210.17	4954
Immigrant Mother/Native Father	63,998.16	4321
Immigrant Father/Native Mother	63,999.20	3623

The descriptive statistics indicate that second-generation immigrants have similar earnings to those who are native-born. Taking the average of the wages of the three second-generation immigrant groups in the total sample, we get $60,670. This is about $3,336 more than the average earnings of native-born individuals (hereafter referred to as natives) and about $11,681 more than the average earnings of first-generation immigrants. In the East Asian sample, first-generation immigrants have a higher average wage than natives by about $2,000, and the average wages of the three second-generation immigrant groups is about $7,070 more than natives.

For the Mexican sample, the average wages of second-generation immigrants are between the average wages of natives and Mexican immigrants. The average wage amongst the three second-generation immigrant groups is about $12,770 less than the average wage of natives and about $13,280 more than the first-generation. The descriptive statistics indicate that second-generation immigrants as a whole, and second-generation immigrants from the East Asian sample earn more annually than native-born individuals, while the second-generation in the Mexican sample earns less.

Further analysis using two regression models will test the actual effect and the significance of nativity and parental nativity status on earnings. The first model (Model 1) will include the variables listed in the table above as well as age and gender, which are basic human capital control variables. The second model (Model 2) will include all of the variables of the first model in addition to several dummy variables that will control for education and leave high school dropouts as the reference group. Controlling for educational attainment introduces a factor that greatly influences earnings. Since parental human capital endowments can influence their children's investments in human capital, I

expect that controlling for educational attainment will influence the estimated effect of nativity of parents on the earnings of second-generation immigrants. All of the variables used in the model and their descriptions are summarized in more detail in Appendix Table 2.

Models 1 and 2 shown below are run separately three times; once for the total sample, once for the Mexican sample, and once for the East Asian sample. The sample for each model includes all first and second-generation immigrants and native-born individuals from the pooled CPS data.[2] There is no dummy variable for the native-born population in the regression model because they are the reference group (i.e., omitted category). All coefficients of the nativity variables will then be interpreted relative to natives. Additionally, the natural log of wages is used as the dependent variable in the regression as is commonly done in estimating earnings functions. The following models will test both the first and second hypotheses.

Model 1:

Ln(Wages)= α_1+ β_1(Immigrant)+ β_2(Immigrant Father/Immigrant Mother) + β_3(Immigrant Mother/Native Father) + β_4(Immigrant Father/Native Mother) + β_5(Age)+ β_6(Age Squared) + β_7(Female)

Model 2:

Ln(Wages)= α_1+ β_1(Immigrant)+ β_2(Immigrant Father/Immigrant Mother) + β_3(Immigrant Mother/Native Father) + β_4(Immigrant Father/Native Mother) + β_5(Age)+ β_6(Age Squared) + β_7(Female) + β_8(HS Diploma) + β_9(Some College)+ β_{10}(College) +β_{11}(Masters) +β_{12}(Professional) +β_{13}(Doctorate)

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[2] The Mexican sample and the East Asian sample include natives but exclude all immigrants and parents of second-generation immigrants who are not from Mexico or East Asian countries respectively.

The coefficients of the variables above will indicate the effect that the independent variables have on earnings relative to natives. If β_2, β_3, and β_4, are positive and significant, then the hypothesis that second-generation immigrants will earn equal to or more than natives will be supported. If β_3 and β_4 (one immigrant and one native-born parent) are both greater than β_2 (two immigrant parents), then the hypothesis that second-generation immigrants with one immigrant parent and one native-born parent earn more than all other second-generation immigrants in the sample will be supported.

V. Results

The purpose of this section is to examine the earnings of second-generation immigrants compared to natives, and compare the earnings of the three groups of second-generation immigrants based on parental nativity status with each other. The detailed results of the regressions in Model 1 and Model 2 are presented in Appendix Table 3, Appendix Table 4, and Appendix Table 5. The regressions yielded generally significant results. Because the dependent variable in the regression model is the natural log of wages, the coefficients in Tables 3, 4 and 5 are converted into percentages. They are computed by taking the exponent of each coefficient in the regression equation and subtracting 1 from it (e^β-1). These percentages are presented for first and second-generation immigrant variables in Tables 2 and 3.

The human capital control variables (female, age, and education) are not presented in Tables 2 and 3, but it can be seen in Appendix Tables 3, 4 and 5 that they yielded significant results and were consistent with expectations based on human capital theory. For example, these Appendix tables show that being a female leads to a disadvantage in earnings relative to males in all samples. The educational control

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Table 2: Estimated Percent Advantages/Disadvantages in Earnings for First and Second-generation Immigrants Relative to Natives: Model 1

Variables	Total Sample	Mexican Sample	East Asian Sample
First-generation Immigrants	-19.27%***	-43.11%***	-5.07%***
Second-generation			
Immigrant Mother/Immigrant Father	3.87%***	-14.87%***	29.18%***
Immigrant Mother/Native Father	11.85%***	-11.13%***	-7.04%***
Immigrant Father/Native Mother	6.72%***	-16.31%***	0.40%

Note: ***Indicates statistical significance at the .01 level, ** indicates statistical significance at the .05 level

Table 3 Estimated Percent Advantages/Disadvantages in Earnings for First and Second-generation Immigrants Relative to Natives: Model 2

Variables	Total Sample	Mexican Sample	East Asian Sample
First-generation Immigrants	-11.40%***	-20.71%***	-7.60%***
Second-generation			
Immigrant Mother/Immigrant Father	2.43%***	-1.78%	7.47%***
Immigrant Mother/Native Father	4.92%***	4.39%**	-0.60%
Immigrant Father/Native Mother	3.56%***	-3.82%**	-3.15%

Note: ***Indicates statistical significance at the .01 level, ** indicates statistical significance at the .05 level

variables also behave as expected, where obtaining a higher education increases earnings relative to those who drop out of high school.

First we briefly examine the results regarding first-generation immigrants from each sample. The estimated percent changes in earnings relative to natives are presented in the first row of Table 2 for Model 1, which is the model that does not control for

education. The results in Model 1 are consistent with previous research, showing first-generation immigrants experience a disadvantage in earnings relative to natives. Immigrants in the Mexican sample experience the largest disadvantage in earnings (-43.11%). When education controls are introduced in Model 2, the Mexican immigrant disadvantage is reduced to -20.11%. Comparing Model 1 results (Table 2) to the Model 2 results (Table 3) also shows that a sharp reduction in estimated earnings disadvantage for all immigrants in the sample relative to natives from -19.27% to -11.40%. The main reason the earnings gap decreases when we control for educational attainment is that the average educational attainment of the entire immigrant population is less than natives' average educational attainment. However, because the average educational attainment of East Asian immigrants is *higher* than the average educational attainment of natives, we do not see a decrease in the earnings gap when we control for education for first-generation East Asian immigrants (-5.07% in Model 1 to -7.60% in Model 2).

The differences in the magnitude of the disadvantage in immigrant earnings relative to natives across the three samples are consistent with the literature that finds an income gap between immigrants and natives (Borjas 2015, Chiswick 1978), but a greater one between Mexican immigrants and natives, and a lesser one between Asian immigrants and natives (Wu and Seeborg, 2012). Since the introduction of education controls did not close the gaps for the Mexican immigrants and all immigrants, these results also suggest that education is a significant but not the only factor that causes a disparity in income between first-generation immigrants and natives. As previously mentioned, factors such as language barriers and insufficient knowledge of the job

market have been found to contribute to this gap as well (Chiswick, 1978). Next, the results for the second-generation will be analyzed by the sample they are in.

Second-generation Results: Total Sample

For second-generation immigrants in the total sample, the coefficients in Appendix Table 3 are all positive and statistically significant, which supports the first hypothesis that second-generation immigrants have earnings that are equal to their native-born counterparts. Tables 2 and 3, which present the regression results as percentages, indicate that second-generation immigrants are earning more than natives. The second hypothesis, which states that second-generation immigrants with one foreign and one native-born parent earn more than their cohorts, is supported by the results presented in Table 2 (Model 1). Without controlling for education, second-generation immigrants with an immigrant mother and native-born father experience an increase in their annual income of 11.85% compared to natives. For second-generation immigrants with an immigrant father and native-born mother have an estimated 6.72% earnings advantage over natives, and those with two immigrant parents have only a 3.87% earnings advantage over natives. The results in Table 3(Model 2) show that with education controls, the percentages for all three groups decrease (2.43%, 4.92%, and 3.56%)

This is an interesting result in that in both models the second hypothesis which states second-generation immigrants with one immigrant parent and one native-born parent will earn more than those with two immigrant parents is supported, but to a lesser extent when education controls are introduced. It is instructive to examine actual educational distributions across first and second-generation immigrant groups to see differences in educational attainment across groups. Appendix Table 2 shows the percentage of each

second-generation group that has achieved a high school degree, some college, a college degree, or an advanced degree. Second-generation immigrants with an immigrant mother and native-born father have the highest percentages of respondents who have achieved some college, a college degree, or an advanced degree, amongst their cohorts. This could explain why without education being controlled for, their percentage increase in earnings is much higher than the other two groups, and becomes almost equal to the others when education is controlled for. The educational attainment of second-generation immigrants with a foreign mother and native-born father is higher than for other second-generation immigrants and that higher level of education appears to have a significant effect on their earnings.

Second-generation Results: Mexican Sample

The estimated percent changes in earnings for the second-generation in the Mexican sample are presented in the second column and last three rows in Tables 2 and 3. The results follow a similar pattern to the total sample amongst the three second-generation groups. The key difference is that all but one of the coefficients are negative, and another coefficient is insignificant. In Table 2 (Model 1) all second-generation Mexican immigrants earn from 11%-16% less than natives on an annual basis. This means that second-generation immigrants whose parents were born in Mexico have not reached income parity with natives, which supports the variation of the first hypothesis that second-generation immigrants from Mexico would not achieve income parity with natives.

When education controls are introduced in Model 2 the results presented in Table 3 show a decrease in the earnings gap among Mexican second-generation immigrants

with two immigrant parents and those with an immigrant father and native-born mother. This shows that after controlling for educational attainment, Mexican second-generation immigrants are not far behind natives in earnings.

Only one second-generation Mexican group can be considered to have achieved equal earnings after controlling for education; those with an immigrant mother and native-born father. This group yielded a positive coefficient in Model 2 that translates to a 4.39% increase in annual earnings over natives, which is very similar to the 4.92% increase for the same group in the total sample. The important difference is that in the total sample, the percent increase in earnings for the Immigrant Mother/Native Father group decreased in Model 2, while in the Mexican sample, the percentage changed from negative to positive, which suggests that the earnings of second-generation Mexican is constrained by relatively low levels of educational attainment (see Appendix Table 2). However, there is something about the combination of a Mexican mother and native-born father that leads to higher earnings than natives after controlling for educational attainment in Model 2.

The results of Model 1 and Model 2 indicate that the assimilation of second-generation immigrants with natives varies depending on the nativity of the parents. Second-generation immigrants who have an immigrant mother and a native-born father seem to have more favorable earnings than the other two groups of second-generation Mexican immigrants.

Second-generation Results: East Asian Sample

The regression results of the East Asian sample do not follow the pattern exhibited in the total and Mexican samples in which those with an immigrant mother and native-born

father have the largest advantages in earnings compared to other second-generation immigrants. Instead, East Asian second-generation immigrants whose parents are both immigrants experience the largest advantage over natives in earnings compared to other second-generation groups. Without controlling for education, the results in Table 2 (Model 1) shows that the earnings advantage of this second-generation group is 29.18% compared to natives, which is an unusually large difference. However, when education controls are introduced in Table 3 (Model 2), this group's advantage over natives is a more modest 7.47%, which is more consistent with the rest of the regression results thus far. For East Asian second-generation immigrants with an immigrant mother and native-born father, the story is different from the other two samples in that this group actually earns 7.04% less than natives without education controls. With education controls in Table 3 (Model 2), this group and the group with an immigrant father and native-born mother produce insignificant results. This indicates that these groups have reached income parity with natives. In general, the results indicate that East Asian second-generation immigrants mostly earn equal to or more than natives.

The results suggest that there is a significant advantage to having two foreign parents as an East Asian second-generation immigrant. Based on these results, and the dramatic decrease in the coefficient when controlling for education, it would appear that the second-generation East Asian immigrants with two East Asian parents achieve higher educational attainment than their cohorts, which causes the dramatic increase in their income. One would then expect that the average percentage of East Asian second-generation immigrants with a college or advanced educational degree would be higher amongst those with two immigrant parents as opposed to those with just one. However,

as shown in Appendix Table 2, the percentage of East Asian second-generation immigrants with a college degree amongst the three groups is around 40%, and around 25% for those with an advanced degree. The advantage that second-generation immigrants with two East Asian parents have over those with just one East Asian parent might be due to the field in which they acquire their degrees, as opposed to just the level of educational attainment they achieve.

VI. Conclusion

The purpose of this research is to determine if second-generation immigrants have reached parity in income with their native-born counterparts, and if there is a difference in earnings between those with two immigrant parents and those with one immigrant parent and one native-born parent. The results for the total and East Asian samples indicate with statistical significance that second-generation immigrants earn equal to or more than their native-born counterparts, but those in the Mexican sample earn less. This supports the findings of Chiswick (1977) that the second-generation outperforms the first-generation to some extent.

As far as which specific group of second-generation immigrants based on the combination of their parents earn the most, the results show that, with the exception of the East Asian sample, it is those with an immigrant mother and native-born father that earn more. The children of this particular combination of parents seem to receive more education, which leads to an increase in earnings. Several studies have shown that the path through which immigrant parents influence their children is through the transmission of human capital (Becker, 1982; Borjas 1992). This paper suggests that the path through which this specific combination of parents influences their children is particularly

powerful in encouraging them to receive higher education. Further studies should examine the effect that an immigrant parent's education has on the education of their children among the three groups based on the combination of the parents' nativity status. By using educational attainment as the dependent variable and including the parents' level of education as control variables, one might be able discover exactly what human capital their parents are passing on that most greatly impacts their earnings.

A study by Harris and Jamison (2008) found that Mexican immigrants in the U.S have lower educational attainment levels than whites. Since the education of parents has a strong impact on the education of their children (Dustmann et al., 2012), this could be why Mexican second-generation immigrants in this sample only catch up to those who are native-born in earnings when education is controlled for. This suggests that Mexican second-generation immigrants receive lower levels of educational attainment, which significantly impacts their disadvantage in earnings. It is therefore important to increase equal educational access for this group, and to support and fund programs that teach and foster the education and vocational skills of the Mexican population in the U.S.

The conclusion drawn about the second-generation immigrants of East Asian descent, is that unlike second-generation immigrants as a whole, having two East Asian immigrant parents leads to the greatest advantage in earnings over native born individuals. Harris and Jamison (2008) have found that Asian immigrants have higher levels of education than native-born whites. As mentioned above further studies should be done to examine the influence that Asian immigrant parents' education has on the education of their children. For now, as shown in Appendix Table 2, we see in this sample that East Asian second-generation immigrants receive higher levels of education

than natives and the other second-generation samples. This may explain why this group achieves earnings equal to natives, but not why those with two East Asian immigrant parents achieve higher earnings than their cohorts, because as mentioned in the results section, their educational levels are not much different. Therefore, there may be another factor besides the level of education of the second-generation that leads to these higher earnings. We might expect a higher percentage of native-born children with two East Asian parents that end up in higher ranked universities and tend toward higher paying STEM disciplines such as engineering or computer science. This could be due to a cultural factor, or U.S policies that encourage the immigration of East Asian workers in the STEM fields.

The results show that second-generation immigrants who have managed to achieve parity with the earnings of native-born individuals are continuing the upward income mobility that first-generation immigrants have experienced. Mexican second-generation immigrants achieve income parity with those who are native-born when education is controlled, which shows that they are contributing just as much as natives with the same level of education. Unequal access to education for this group is evidentially a main factor that is impeding their economic success in the U.S. The results for all second-generation immigrants in this sample show that the economic impact of immigrants includes intergenerational effects. Combined with recent statistics that show the second-generation is becoming a significant portion of the population, this positive picture of the economic success of second-generation immigrants should be considered when discussing policy recommendations regarding the admittance of immigrants into the U.S. The results regarding the effect of the combination of having immigrant and

native-born parents warrants further research into the educational and cultural reasons

behind these results.

Appendix.

Appendix Table 1. Summary of Variables

Variable	Description	Expected Sign
Dependent		
LnWages	Natural Log of Individual Earnings from Salary and Wages	
Independent		
First-generation		
Immigrant	Dummy variable where 1=First-generation Immigrant	Negative
Second-generation		
Immigrant Father/Immigrant Mother	Dummy variable where 1= Immigrant Father & Immigrant Mother	Positive
Immigrant Mother/Native Father	Dummy variable where 1= Immigrant Mother & Native-born Father	Positive
Immigrant Father/Native Mother	Dummy variable where 1= Immigrant Father & Native-born Mother	Positive
Controls		
Female	Dummy variable where 1= Female	Negative
Age	Age of respondent	Positive
Age Squared	Age squared of respondent	Negative
HS Diploma	Dummy variable where 1= High school diploma highest degree achieved	Positive
Some College	Dummy variable where 1= Completed 1-4 years of college	Positive
College	Dummy variable where 1= Bachelor's degree highest degree achieved	Positive
Masters	Dummy variable where 1= Master's degree highest degree achieved	Positive
Professional	Dummy variable where 1= Professional school degree highest degree achieved	Positive
Doctorate	Dummy variable where 1= Doctorate's degree highest degree achieved	Positive

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Appendix Table 2. Human Capital Characteristics: Total Sample, Mexican Sample, and East Asian Sample

	Ave. Age	% Female	High School Drop Outs	High School Diploma	Some College	College Degree	Advanced Degree*
Total Sample							
Native-Born	44.30	43.99%	3.52%	27.26%	30.19%	25.16%	13.87%
First-generation Immigrants	43.45	43.94%	22.69%	24.86%	17.67%	20.30%	14.48%
Second-generation							
Immigrant Mother/ Immigrant Father	38.82	44.66%	6.23%	24.01%	27.70%	26.46%	15.60%
Immigrant Mother/Native Father	43.31	43.09%	2.56%	20.66%	29.49%	28.05%	19.24%
Immigrant Father/Native Mother	42.92	46.54%	4.90%	22.48%	28.98%	25.91%	17.73%
Mexican Sample							
First-generation Immigrants	41.63	31.47%	50.53%	29.94%	12.07%	6.03%	2.12%
Second-generation							
Immigrant Mother/ Immigrant Father	36.46	44.75%	13.60%	34.00%	32.18%	15.40%	4.82%
Immigrant Mother/Native Father	40.32	45.38%	6.70%	30.11%	35.49%	19.45%	8.24%
Immigrant Father/Native Mother	40.45	48.97%	13.36%	30.77%	36.25%	14.00%	5.61%
East Asian Sample							
First-generation Immigrants	45.17	47.01%	8.46%	23.26%	15.17%	27.99%	25.12%
Second-generation							
Immigrant Mother/ Immigrant Father	42.91	45.07%	1.74%	15.58%	16.65%	40.21%	25.82%
Immigrant Mother/Native Father	43.29	45.04%	1.83%	16.71%	17.15%	39.11%	25.20%
Immigrant Father/Native Mother	43.44	45.51%	1.88%	16.59%	14.66%	40.22%	26.66%

Note: *Indicates those with a Masters, Doctorate, or Professional degree.

Appendix Table 3. Regression Results: The Effect of Nativity/Parental Nativity Status on Ln of Wages: Total Sample

Variables	Model 1	Std. Error	Model 2	Std. Error
Constant	9.411***	.019	8.907***	.017
First-generation Immigrants	-.214***	.003	-.121***	.003
Second-generation				
Immigrant Mother/Immigrant Father	.038***	.006	.024***	.005
Immigrant Mother/Native Father	.112***	.009	.048***	.008
Immigrant Father/Native Mother	.065***	.009	.035***	.008
Age	.062***	.001	.059***	.001
Age Squared	-.001***	.000	-.001***	.000
Female	-.287***	.002	-.316***	.002
High School Diploma	-		.275***	.004
Some College	-		.466***	.004
College	-		.803***	.005
Masters	-		1.008***	.005
Professional	-		1.402***	.008
Doctorate	-		1.256***	.008
Adjusted R^2	.077		.280	
N	374793			

Note: ***Indicates statistical significance at the .01 level, ** indicates statistical significance at the .05 level

Appendix Table 4. Regression Results: The Effect of Nativity/Parental Nativity Status on Ln of Wages: Mexican Sample

Variables	Model 1	Std. Error	Model 2	Std. Error
Constant	9.463***	.020	8.967***	.019
First-generation Immigrants	-.564***	.005	-.232***	.005
Second-generation				
Immigrant Mother/Immigrant Father	-.161***	.011	-.018	.010
Immigrant Mother/Native Father	-.118***	.022	.043**	.020
Immigrant Father/Native Mother	-.178***	.018	-.039**	.016
Age	.060***	.001	.059***	.001
Age Squared	-.001***	.000	-.001***	.000
Female	-.304***	.003	-.329***	.002
High School Diploma	-	-	.234***	.005
Some College	-	-	.415***	.005
College	-	-	.747***	.006
Masters	-	-	.927***	.006
Professional	-	-	1.333***	.010
Doctorate	-	-	1.180***	.010
Adjusted R^2	.106		.272	
N	288285			

Note: ***Indicates statistical significance at the .01 level, ** indicates statistical significance at the .05 level

Appendix Table 5. Regression Results: The Effect of Nativity/Parental Nativity Status on Ln of Wages: East Asian Sample

Variables	Model 1	Std. Error	Model 2	Std. Error
Constant	9.416***	.021	8.895***	.020
First-generation Immigrants	-.052***	.009	-.079***	.008
Second-generation				
Immigrant Mother/Immigrant Father	.256***	.026	.072***	.023
Immigrant Mother/Native Father	-.073***	.027	-.007	.015
Immigrant Father/Native Mother	.004	.022	-.032	.020
Age	.062***	.001	.061***	.001
Age Squared	-.001***	.000	-.001***	.000
Female	-.306***	.003	-.327***	.002
High School Diploma	-		.261***	.007
Some College	-		.442***	.007
College	-		.778***	.007
Masters	-		.960***	.007
Professional	--		1.372***	.010
Doctorate	--		1.201***	.010
Adjusted R^2	.072		.252	
N	304014			

Note: ***Indicates statistical significance at the .01 level, ** indicates statistical significance at the .05 level

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