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Abstract

Education is a proven determinate of one's income. From a policy point of view an important question is whether the children of the first-generation immigrants are capable of acquiring a good socio-economic position, and if so, to what extent. Since educational attainment is a strong determinant of the labor market position and related variables like income, a focus on the educational achievements of the second-generation makes sense. Rather, if these second generation immigrants are being educated, entering the work force and likely raising children in the US, it is likely that their education will be passed on.

So if there is that effect of having immigrant parents on education, is this affect the same for every country of origin? Likely not. As mentioned earlier, every country has its own customs and beliefs, and thus, its own views on the importance of school. Do these nation specific differences give different effects on the educational attainment of the children of immigrants? And if so, which countries have stronger positive effects on their second-generation?

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Adebola Olayinka

I. Introduction

The National Center for Children in Poverty reports that the foreign-born population in the United States has increased 57 percent since 1990 to a total of 30 million. In 2000, one out of every five children under age 18 in the United States was estimated to have at least one foreign-born parent. In the state of Texas, that number rises to one in three. With such a large, and rising population, numbers of these second-generation immigrants – defined as those born in the United States, but who have at least one parent who was not born in the United States – it is important to understand the effect that immigrant parents and their children are having on the country. The difference of lifestyle and priorities can be vast, between both natives and immigrants, and between immigrant groups.

For example, even though I was born in the United States, being the child of an immigrant always made me feel different. Sometimes I felt alone, like no one in my classes understood me. The numbers show that these ideas I had about my solitude in my situation were completely untrue. The cultures that my parents and other immigrants brought with them have different customs, beliefs and different views of society. While those in the second generation like me are ingrained with American culture, we also have access to another culture. This all begs the question, do the cultural differences passed from first generation immigrants to their children have any advantages? Are there distinct benefits from having at least one foreign-born parent? Studies have said that overall, having immigrant parents does give some form of added advantage when it comes to schooling.

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customs and beliefs, and thus, its own views on the importance of school. Do these nation specific differences give different effects on the educational attainment of the children of immigrants? And if so, which countries have stronger positive effects on their second-generation?

II. Background

A variety of studies have been done on the overall education attainment by second-generation immigrants. There are studies that take place all across the world, with a majority of them focusing on European countries. However, despite the variety of countries in which second-generation educational attainment has been studied, most studies focus on completion of secondary education. Many focus on the compulsory age of education, and try to compare and contrast how students from different groups fare in completing a high school education past that compulsory age. There have been few studies that focus on the post high school attainment. The attainment of a Bachelor's degree is not frequently studied, and anything beyond that is of even less focus.

In one of these Tasiran and Tezic (2006) study post-secondary education of natives and immigrants in Sweden. The results give evidence for socioeconomic determinants of higher education and for parental influence on educational choices. Parental income affects second-generation immigrants' post-compulsory education and Swedes' choice of level of education. In general, the stronger the labor market positions of the parents, the higher the probability of the children getting more education. It is also found that the geographical origin of second-generation immigrants matter, with youths of Asian origin having a higher probability of continuing their education. I expect my study of educational attainment of second-generation immigrants in the United States to yield similar results.

Another study is done by Gang and Zimmermann in 2000, and uses evidence from German data and suggests that ethnicity matters in determining educational attainment. Ethnic "network size" has a positive effect on educational attainment. They find for non-natives, the size of their ethnic group's presence at the time they enter the German school system makes a difference: the larger the network, the more schooling is attained. This is because the family is not a self-contained unit, and children are influenced by their community and the larger society in which they live. This society often includes a social network of people from the parents' country of origin. Furthermore, a clear pattern

is shown between countries-of-origin and education even in the second generation. It also finds something a little different from other studies: that for children of the foreign-born, parental schooling plays no role in educational choices.

Portes and Hao (2004) do an analysis of national differences that is limited to just four nationalities: Chinese, Koreans, Mexicans, and Vietnamese. This decision was based on the prior finding that these are the nationalities that have the strongest and most resilient effects on academic performance and that these effects are of opposite sign: the three Asian groups perform consistently above the sample average and have large numbers receiving post-secondary degrees. The opposite is the case for Mexican-origin students. This validates the hypothesis that different immigrant groups give their children different combinations of capital that encourage them to get education.

Portes and Hao also attempt to give reasons why these groups perform so differently. They look at the specific historical origins of each immigrant group and the ways in which different forces caused the first-generation immigrants to migrate to the United States, the different receptions that each group had when settling in the States, and the ways in which it has affected the socioeconomic assimilation of first-generation immigrants. When they arrive, Chinese and Korean immigrants already possess material resources, are highly educated and have been well received in the host society, so are in a position to effectively support the education of their offspring. Conversely, first-generation Vietnamese immigrants were often refugees from a communist country, and hence were entitled to substantial governmental assistance. In this case, lower levels of education were compensated by an even more favorable official reception to the United States.

First-generation Mexicans, on the other hand, have the lowest average levels of education and occupational skills of any sizable immigrant group in the United States. They also experience a negative reception by the United States public and government. The low level of human capital among first-generation Mexicans is not a consequence of extraordinarily poor education in Mexico, but of its close proximity to the United States. This closeness has enabled tens of thousands of Mexican peasants and unskilled workers to migrate by land in search of manual jobs, creating a network quite different from those of other immigrant groups. These differences between reason and method of immigration all affect the educational outcomes of the second generation.

III. Theory

The basic theory behind this study is the human capital model. Human capital refers to the educational and skill qualifications as well as the English language proficiency of immigrants. According to the New Palgrave Dictionary of Economics, "human capital refers to the productive capacities of human beings as income producing agents in the economy." It includes characteristics that can be converted into resources. Human capital is the income producing skills and knowledge of individuals. Human capital can be increased through investments in education, training, health care or mobility. It is important that the human capital model is used to account for the normal determinants of educational outcome. Since human

capital tends to be country specific, immigrants need time to acquire U.S. human capital. However, since their children – the second-generation immigrants – were born in the United States, they should have the advantage of being close to or equal to natives in their acquisition of U.S.-specific human capital.

But according to Patricia Anckwe's study about second-generation Nigerians (2008), human capital isn't all that matters. This study says that social capital and cultural capital are important in the study of immigrant youths. Social capital, she writes, "refers to the parental networks and family structure of immigrants" (38). Cultural capital refers to cultural norms that immigrant groups might rely on to motivate their children to succeed in school. After controlling for human capital, second-generation Americans from countries with relatively high social and cultural capital could have higher educational attainment than native Americans. However, what if the social and cultural capital brings a negative impact on educational attainment?

Another question that needs to be answered is which countries bring the strongest positive social and cultural capital with regards to educational attainment. For example, here are distinct differences between the average Chinese and Mexican immigrant and their views on the importance of education. According to Gang (2000) "family and culture may interface with the schooling environment in different ways for different ethnic groups." (55) Therefore, it is important to study each country separately in addition to studying the second generation as a large group.

I hypothesize that there will be an overall positive effect of having foreign-born parents on educational attainment. However, I believe that there will be a difference depending on what region of the world an individual's parents immigrate from. In accordance with the reasoning that Portes and Hao give concerning first-generation decisions to immigrate, there is likely to be varying effects of parents' nation of origin. Children of immigrants that come in with low skill and human capital will likely have a very slight positive or perhaps even negative effect on educational attainment. However, children of immigrants coming to the United States with more choice and freedom will likely have a strong positive effect on educational attainment.

IV. Data and Empirical Model

The data that will be used to run the regressions comes from Integrated Public Use Microdata Series (IPUMS). IPUMS is a rich data source, with a large variety of variables that pertain to this study. The US Census Bureau provides three types of data relevant to studying the second generation: the decennial census, the American Community Survey (ACS), and the Current Population Survey (CPS) which is the smallest. Despite this fact, that CPS is the smallest sampling, it must be used over the Census and ACS.

The last Census was conducted in 2000, so the information is a little dated. Moreover, the 2000 Census did not ask about parents' country of origin. ACS also does not ask for parents' country of birth and thus can only be used to gather information about children of immigrants who live with their parent. CPS does ask respondents about their parents' country of birth. This makes it possible for researchers to obtain information about members of the second generation of any age.

In accordance with theory behind the human capital, social capital and cultural capital models, this study will use a number of variables to test for differences in educational attainment between natives (those born in the U.S., with U.S. born parents) and different groups of second-generation Americans (those born in U.S., but with parents born abroad). To understand educational attainment, one must first look at educational determinants that effect educational outcomes on a general basis. Table 1 lists simple definitions of each of the variables.

According to Van Ours and Veenman (2003), education of both father and mother must be taken into account. Over time, fathers' education has proved to be a more significant in educational attainment of children. They "use a series of dummy variables representing primary education, lower secondary education, intermediate education and higher education." Parental education is the key factor in measuring social capital.

Another imperative variable to be included is sex of the individual. There are a number of studies that indicate that one's sex is an important factor in educational attainment. For example, Gang (2000) finds "that there are large differences in the human capital formation across gender." (567) There are different obstacles for males versus those for females in the course of educational attainment. To control for the differences in these experiences, one must include a dummy variable for gender.

Also, the older one is, the more time there is to gain human capital in the form of education. This problem is likely to create bias towards cases with older people. Therefore, it is essential that there exist an age variable to control for the fact that older people likely have more education.

Since this study looks for the isolated effects of parents' national origin on educational attainment, it is key that I include a variable of some sort to measure national origin. A set of dummy variables to denote which country individuals' parents are from will provide information about the effect having parents from that specific country gives. This serves as a measure of cultural capital. The effect that the national origin variable has on educational attainment shows how much influence the network of immigrants surrounding the second generation has.

However, second-generation adults who have established their own households cannot be "matched" with their immigrant parents, and thus nothing can be said about parents' characteristics. This means that there may be some key variables like parents' education level. To rectify this, a proxy is used to substitute for parental education. A number from 0 to 1 stands in place of parental education, that number being the percentage of women or men over 30 with a bachelor's degree. This serves not only as a proxy of parental education, but also as an estimator of social capital because it shows the educational attainment of that particular immigrant group.

The dependent variable that is examined with each of these regressions is educational attainment. This is measured on a scale of 0 to 1; 1 if the respondent has completed that level of education, and 0 if not. The results will be a number from 0 to 1, defined as the probability that a respondent with

any combination of characteristics will complete that level of education. The two levels studied are the probability of one completing a bachelor's degree, and then the probability of the respondent receiving a master's degree.

Two regressions are run for each degree: the first testing whether as a whole group, being a second-generation immigrant gives an advantage, and the other testing for the strength of and differences between separate countries educational attainment. In the end, all these variables give rise to a similar final equation that can be run as an OLS regression. This first equation, testing for the second-generation as a whole, will look something like:

$$EA = \alpha + \beta 1 (Fathers\ Ed) + \beta 2 (Mothers\ Ed) + \beta 3 (Sex) + \beta 4 (Race) + \beta 5 (Second\ Generation) + \beta 6 (Age) + \epsilon$$

This second equation, testing for the national origins separately, will look something like:

$$EA = \alpha + \beta 1 (Fathers\ Ed) + \beta 2 (Mothers\ Ed) + \beta 3 (Sex) + \beta 4 (National\ Origin) + \beta 5 (Age) + \epsilon$$

This second equation omits the race dummy variables because of autocorrelation. There is a strong correlation between nation of origin and race. However, the race variable is needed in the equation testing overall effects of being a second-generation immigrant.

V. Results

The results of the OLS regression focused on Bachelor's and Master's degrees attainment are listed in Tables 2 and 3 respectively. In both tables, Model 1 measures the second-generation immigrant group as a whole. Model 2 on the other hand measures the three individual groups of focus: natives, second-generation Chinese, second-generation Mexican, and second-generation Nigerian cohorts. The Bachelor's degree results in Table 2 make intuitive sense.

Both second generation Chinese and Mexicans have positive effects, but it appears that second generation Chinese has a strong effect. In layman's terms, being a second-generation Chinese immigrant means that one is 13.5% more likely to graduate with a bachelor's degree. This makes sense in conjunction with Portes and Hao's (2004) explanations of reason for immigration. The results for second generation Nigerians are surprising. The regression shows a negative effect, however, it is not significant. Both observation and migration reasons make negative social and cultural capital unlikely in the case of Nigeria.

After running more descriptive statistics, the reason for the counterintuitive findings is likely small sample size. There are only 16 second-generation Nigerians in my sample, compared with 185 second-generation Chinese and 1900 second-generation Mexicans. The model also found a slight negative effect of being a native American on obtaining a Bachelor's degree. However, the Model 1 found that the overall effect of being a second-generation immigrant from any background does have a positive effect on getting a Bachelor's degree, however small.

The results of the Master's degree regression are less valid. One significant nation variable is the supposed negative effect of being a second generation Nigerian. However, due to the small sample size, this is likely to be an incorrect finding.

The results for natives again show a slight negative effect of being a native American on obtaining a Master's degree. However, Model 1 did find that the overall positive effect of being a second-generation immigrant on getting a Master's degree.

VI. Conclusion

All in all, it seems that there is a positive effect of having immigrant parents on getting both a bachelor's degree and a Master's degree. There are clear differences between educational attainments of second-generation immigrants from different countries. In accordance with the findings of Gang (2000), the overall positive effect of being a second-generation immigrant, coupled with the huge differences in effect of specific nations of origin validates the hypothesis that there are distinct differences between specific nations social and cultural capital that immigrants pass on to their children.

However, better conclusions could be drawn if the sample size was bigger. Despite the small sample size, it can be concluded that the social and cultural capital that second generation immigrants have in conjunction to the U.S. specific human capital gives second-generation immigrants an extra step when it comes to educational attainment.

Further studies could look more closely at the different countries and the differences between them. Why do Chinese have such high rates of return for their children? What are the effects of different reasons immigrant populations come to the U.S.? For example, what levels of degree attainment would one find in refugee populations? These are all avenues for future research.

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Table 1: Definitions of Key Variables and Predicted Signs

	Definition	Predicted Sign
<i>Dependent Variable</i>		
Educational Attainment	Probability of Attaining that level of education	
<i>Independent Variables</i>		
Father/Mother's Education (DadCSC/MomCSC)	Probability that parent received a Bachelor's Degree	+
Sex	Dummy Variable, 1 if Male	+
Race	Dummy's characterizing race	+/-
National Origin	Dummy based on parent(s) birthplace	+/-
Age	Age of respondent	+/-

Table 2: Results of Key Variables, Bachelor's Degree

	Model 1	Model 2
Constant	.049	.150
<i>Independent Variables</i>		
Second Generation	.018 (3.766)***	
SG Chinese		.135 (4.098)***
SG Mexican		.024 (2.238)**
SG Nigerian		-.062 (.556)
Native		-.006 (1.949)*
Adjusted R²	.059	.051
Other Significant Variables	White, American Indian, Asian, Mixed Race, Male, Age, MomCSC, DadCSC	Male, Age, MomCSC, DadCSC

***Significant at .001

**Significant at .05

*Significant at .10

Table 3: Results of Key Variables, Master's Degree

	Model 1	Model 2
Constant	-0.069	-0.008
Independent Variables		
Second Generation	.008 (2.495)**	
SG Chinese		.021 (.922)
SG Mexican		.010 (1.350)
SG Nigerian		-.236 (3.067)***
Native		-.013 (6.266)***
Other Significant Variables	Male, Age, MomCSC, DadCSC, White, Black, Asian, Mixed Race	Male, Age, MomCSC, DadCSC
Adjusted R²	.026	.024

***Significant at .001

**Significant at .05

*Significant at .10

